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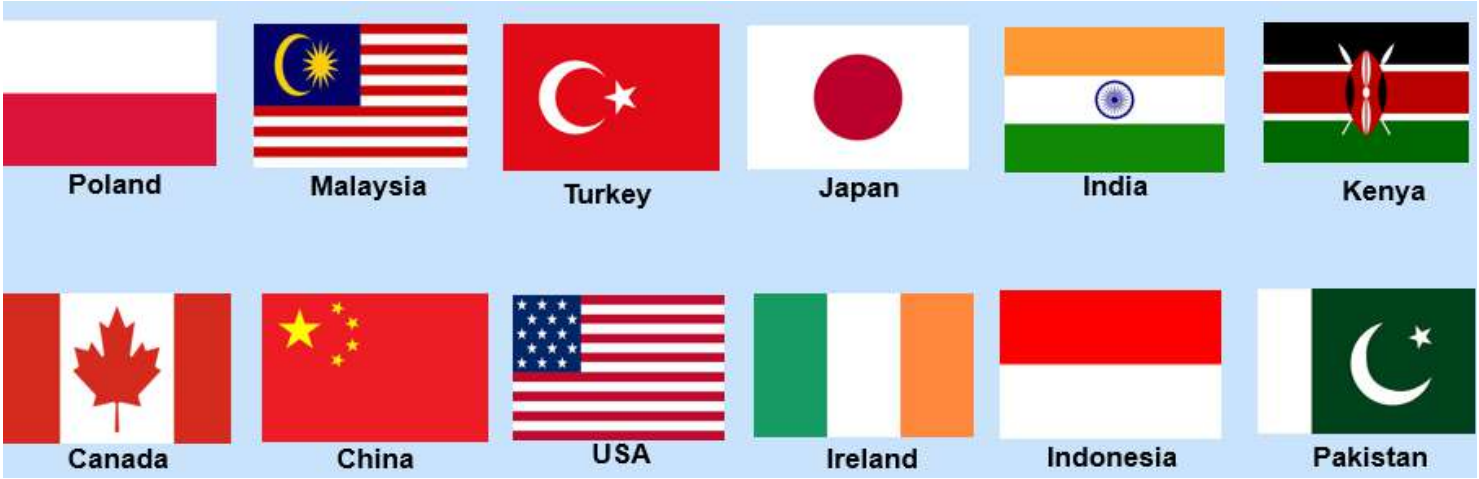

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Table of Content:

S. No.	Particulars	Page Numbers
1.	TERA Association	6
2.	President & Vice- President	7
3.	TERA Committee Members	8-10
4.	Preface	11
5.	Publication Process	12
6.	Acknowledgment	13-16
7.	List of Keynotes	16-17
8.	List of Presenters	18-316
9.	List of Listeners	316-332
10.	Upcoming Conferences	332

Teaching and Education Research Association (TERA) is an international community of Researchers, Practitioners, Students and Educationists for the development and spread of ideas in the field of teaching and education.

TERA is promoted by Eurasia Research. TERA aims to bring together worldwide researchers and professionals, encourage intellectual development and create opportunities for networking and collaboration. These objectives are achieved through Academic Networking, Meetings, Conferences, Workshops, Projects, Research Publications, Academic Awards and Scholarships.

The driving force behind this association is its diverse members and advisory board, who provide inspiration, ideas, efforts and drive collaborations. Scholars, Researchers, Professionals are invited to become a member of TERA and join this ever-growing network, working for benefit of society and research with the spirit of sharing and mutual growth.

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Preface

Teaching and Education Research Association (TERA) is a community of passionate researchers, practitioners and educationists for the development and spread of ideas in the field of teaching and learning. TERA aims to bring together worldwide researchers and professionals, encourage intellectual development and provide opportunities for networking and collaboration. These objectives are achieved through academic networking, meetings, conferences, workshops, projects, research publications, academic awards and scholarships. The driving force behind this association is its diverse members and advisory board, who provide inspiring ideas and research contributions. Scholars, Researchers, and Professionals are invited to freely join TERA and become a part of this ever-growing network, working for benefit of society and research with the spirit of sharing and mutual growth.

For this conference around 70 Participants from around 10 different countries submitted their entries for review and presentation.

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Editor: Dr. Anupam Krishna

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All accepted original research papers in the English Language will be published in selected journals as per the publication policy, as available on the conference website. Once you receive the Invitation/ Acceptance letter, that means your full paper is also accepted for publication in an International Journal, if you follow the communicated editorial instructions/ guidelines.

The journal publication will be peer-reviewed, checked for plagiarism, indexed, archived, open access, referenced by CrossRef and will carry ISSN number and DOI.

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Article Title
Full Names/ Emails/ Affiliations of the authors
Abstract in 100-300 words
3-7 Keywords
You may update your submitted abstract/ title/ co-authors/ submit your full-paper on a later stage (before the conference).

You may submit your full original paper for publication in the conference journal, when it is complete, till the conference date. The last date of submission is the conference day itself. While submitting the full paper, please provide the following in the email:

Full paper in MS Word format. (Ideally, a research paper should be 2500-3000 words).
Details of 2 reviewers with their names, affiliations, contact numbers and email IDs (If possible, send two emails for each reviewer).
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After this, the editorial team would send all complete papers for review (usually 5-7 reviewers). The review process takes around 30 days.
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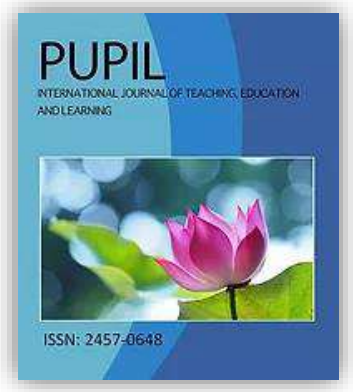


TERA Institutional Members

Some special thanks go to our outstanding Key-Note speakers, not only for their inspiring and highly interesting presentations but also for their input and contributions in the discussions and Q&A sessions during the conference:

KEYNOTE SPEAKERS 2022

Topic – Digital Transformation of Education and its Impact to Graduates Employability

Dr. Maria, being an academician for twenty years, has been involved both in university / collegiate teaching, research writing and publication. She has served as Training Institute Administrator for twenty years drafting academic policies while doing collaboration with members of higher education. Dr. Maria has expertise in teaching Entrepreneurship, Strategic Management, and the MBA dissertation writing. She has acquired certification from Oman SME-MOHE as a Certified Entrepreneur Educator.

Dr. Maria Teresa Matriano
Assistant Professor, Department of Management Studies / Center for Post-Graduate Studies, Muscat, Oman

Topic: Sangha on Earth: A Community of Equality

Kenneth Lee is the Professor of Asian Religions at California State University, Northridge in the Department of Religious Studies. Born in South Korea and raised in Los Angeles, Dr. Lee teaches courses in Asian religions, Buddhism, and introductory courses in religion. He earned his A.B. in Psychology from Occidental College, M.Div. from Princeton Theological Seminary, and M.Phil. and Ph.D. in Buddhist Studies from Columbia University. His book, The Prince and the Monk: Shotoku Worship in Shinran's Buddhism, SUNY Press, traces the evolution of Shotoku worship in Japanese Buddhism.

Kenneth Lee
Professor, Asian Religions, California State University, Los Angeles, California

Topic: Post Covid Affected The Orphans The Deep South, Thailand

Assistant Prof.Dr.Kanlaya Daraha.She was the former president of social work curriculum at Prince of Songkla University, Thailand ,She graduated Doctoral Degree of Social Work at Universiti Utara Malaysia. She works with Civic Women at Prince of Songkla University for rehabitate the women respect human dignity. And she works with Coordination Center for Children and Women in Southern Border Provinces :(CCCW –SBP).The situation of children and women in the southern border provinces has been occurred for a long time. It affected the women and the women in the southern border provinces to participate as a civil society. There are more than 100 organizations in various dimensions to heal the Human Rights , construct Peace, communication for understanding, promote careers, Education and etc. She is the Vice President of Teaching Education Research and Association (TERA) and also she is the peer reviewer for Thai Jo , and other publications in Thailand ,ASEAN and international papers.Her papers, many scholars from Thailand and abroad mentioned her researches, Special Award: She received award the specialist of social work from Faculty of Humanities and Social Sciences Prince of University and award from Prince of Songkla ,Pattani Campus ,Award of outstanding Alumini of Faculty of Social Administration University

in January 2022 and Thammasat University in June 2022 and Global Research& Development Services(GRDS).

Dr Kanlaya Daraha
DFaculty of Humanities And Social Sciences,
Prince Of Songkla University
Pattani Campus, Pattani, Thailand

Topic: Well-Being In Higher Education–Empirical Research Based On The Logic Of The GNH (Gross National Happiness)

Prof. Dr. Habil Andrea Bencsik CSc, Ph.D. is a professor at the University of Pannonia in Veszprem, Hungary and at Janos Selye University in Komarno, Slovakia. Responsible for the management of students' academic research and head of the doctoral programme in English. She is doing research in the fields of knowledge- change- human resources management and teaching these disciplines at the same time. Her current research topic is the well-being of higher education staff based on the method and logic of GNH (Gross National Happiness). She is the author of a number of scientific publications (635) and a member of some international scientific committees.

Prof. Dr. Habil Andrea Bencsik
University of Pannonia in Veszprem, Hungary

PRESENTERS

Blended Education- Best Practice for Quality Improvement at Panipat Institute of Enginesering and Technology

Rakesh Tayal
Vice Chairman, Panipat Institute of Engineering and Technology, Kurukshetra University, Panipat, India

Arindam Bhattacharya
Chief Advisor, Panipat Institute of Engineering and Technology, Kurukshetra University, Panipat, India

Bhawna Singla
Professor, Member-IQAC, Panipat Institute of Engineering and Technology, Kurukshetra University, Panipat, India

A) Abstract: Synchronous online teaching learning methods offer the advantages of students' learning enhancements through digital interventions but still maintain the possibilities of active learning through interactive and adaptive ways. Asynchronous instruction model relies on a more flexible, student centric and independent mode of learning. Both these models have distinct advantages and limitations. Blending of these approaches, as practiced in the Panipat Institute of Engineering and Technology to bring out the desired learning outcomes along with the derived improvements are discussed in this paper.

Keyword(s): Blended Education, Panipat Institute of Engineering and Technology, PIET, automated lecture capture system, smart boards, online classroom.

B) Introduction: Blended Education means to combine face to face education with online education in an efficient way to improve the teaching learning process [1]. The percentage of blend of online and physical mode may depend on students, courses, industry requirements and teaching schedule and other institute resources with the objective of improving learning quality and student satisfaction. The online education (enriched with multimedia content) can be given in synchronous or asynchronous mode [2]. Synchronous mode is the delivery of live courses to students who may be distant from teachers but connected via technology like internet such as online classroom or we can say distance learning via live lectures possible using internet. However, asynchronous mode, gives the flexibility to teachers to record their courses that can be accessed by students at flexible timings with the help of learning management system. When blended education is understood properly and applied, it gives benefit to both teacher

and students. Various forms of blended education are listed below in table 1:

Table 1: Various Forms of Teaching Learning Process

Form	Content delivery mode	Delivery style	In-person (Teacher/student)	Real Time
Face to face	classroom interaction	White boards	Yes	Yes
Synchronous - digital	multimedia	smartboard	Yes	Yes
Synchronous - online	interactive/digital	online video mode with real time chat	Yes	Yes
Asynchronous form - offline	teacher's lecture recordings	lecture capture system and learning management system (LMS)	No	No
Blended synchronous	online classroom lectures	smartboard	Mixed	Adoptive and flexible

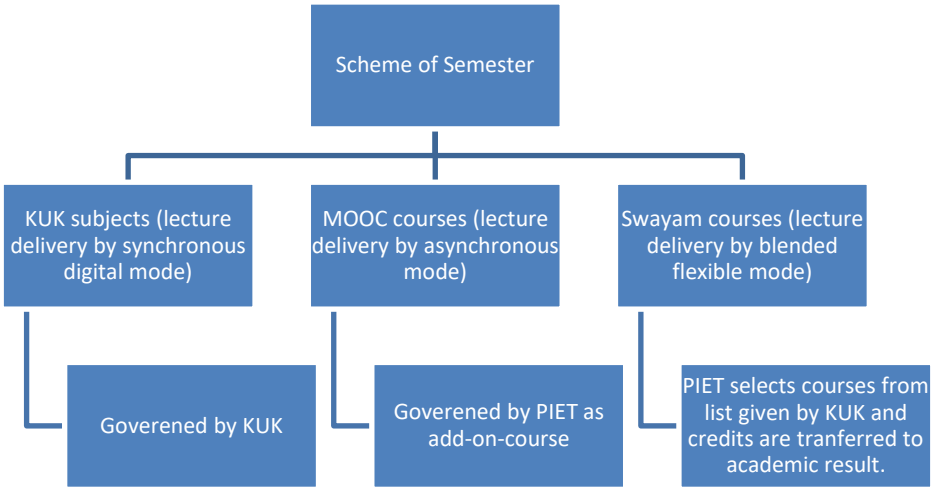
PIET is using blended flexible model where in teacher used to take the classroom lectures in an online form to give personal attention to students who are coming physically. However, those students' who are unable to come are connected via online meet. Further, all lectures are captured via lecture capture system and uploaded on learning management system after the class so that students can access lecture recordings after the class. Learning management system also gives flexibility to students to submit their assignments 24*7. Their quizzes are also evaluated online so that scoring can be distributed immediately. For the sustainable implementation of blended education, European Maturity Model published in 2020 discussed holistic blended framework for HEIs by distinguishing maturity at three levels: course, program, and institution level [3,4]. With proper synchronization of maturity at all course, program, and institution level benefits of blended education can also be increased. This paper focusses specially on imparting online teaching to students attending Higher Education Institutes (HEIs) physically. In this paper, framework of Panipat Institute of Engineering and Technology (PIET) is discussed with complete coverage of motivation, cognitive learning strategies, impact on teaching learning with the objective of quality assurance [5,6]. However, a lack of positive motivation may be one of the delimiting factors behind achieving the desired performance of blended learning model [7,8].

C) Design Implementation: PIET recognized blended education as the major quality improvement tool for teaching, learning process. The following paper discusses the design implementation of blended learning with the case study of batch 2020-2024, B. Tech CSE (honors) with minor specializations having strength of 36 students. As PIET is affiliated from Kurukshetra University so it follows scheme and syllabus given by Kurukshetra university with an average of approximate 5 theory subjects and 3 practical subjects in every semester. As mentioned in below table 2, the students were offered following MOOC and Swayam courses apart from their regular scheme as per their minor specialization.

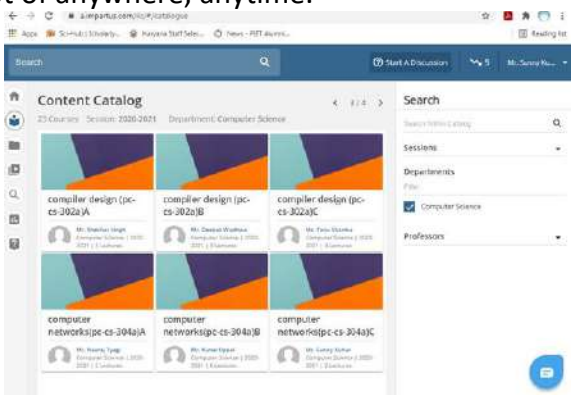
Table 2: Number of students in B.Tech - CSE(Honors) taking IBM and Swayam courses

Total number of students in various specializations		9	13	6	3	5
Courses Vs students in B.Tech – CSE (Honors) specialization in		AI-ML	AI-DS	IOT	Blockchain	Cybersecurity
Semester -1	IBM Basic Python	9	13	6	3	5
Semester-2	IBM Artificial Intelligence concepts	9	13	6	3	5
Semester-3	IBM Cloud Essentials: Hands-On Lab	9	13	6	3	5
Semester-4	Swayam Design Thinking	9	13	6	3	5
	Swayam Machine Learning	9	13	--	--	5
Semester -5	Swayam Data Science for Engineers	9	13	--	--	--
	Swayam Python for Data Science	9	13	--	--	--
	Swayam Introduction to IOT	--	--	6	--	--

IBM subjects were taught additional to Kurukshetra university curriculum as an add-on-courses under category MOOC. However, for Swayam identified courses, credits (as mentioned on Swayam portal) were transferred to academic result after successfully clearing evaluation parameters by students. As per scheme students had 5 subjects in both 4th and 5th semester. Out of 5 subjects three subjects were taught using multimedia rich content on smartboard and were evaluated as usual. However, for rest two subjects, the credits were transferred from Swayam courses so that students can choose subjects as per their specialization. Further, specialization subjects were evaluated online as per standards governed by MOOC system. Cellstrat online AI-ML cloud platform was also used for project development.



Online Lecture Capture system – **Impartus and online meet**: Blended flexible classroom teaching is strengthened with the help of impartus and Microsoft team that gives flexibility of recording of lectures. 1. Impartus enables its faculty members to record and upload their lectures using credential provided by impartus support team as shown in figure 1 and 2. Students can log in to their account to view the lectures of different subjects delivered using the concept of anywhere, anytime.



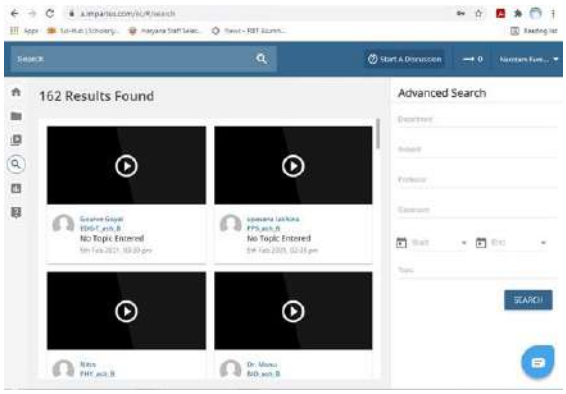


Figure 1: Snapshot Showing the Faculty Account **Fig 2:** Snapshot Showing the Student Account Of

2. Microsoft as online teaching platform: Every faculty and teacher are assigned teams account shown in figure 3, for lecture delivery, recordings of lectures, attendance downloading, assignment submission etc.

Figure 3: Snapshot of Teams Platform Usage for Lecture Delivery

3. Zoom for online meetings, webinars, and collaborations: To take more advantage beyond restricted time and limited participants, paid version of zoom was also purchased.

Blended Education teaching pedagogys' fulfillment means at PIET: The following diagram explains various PIET education pedagogy's objective and various means adopted to achieve those objective as shown in figure 4.

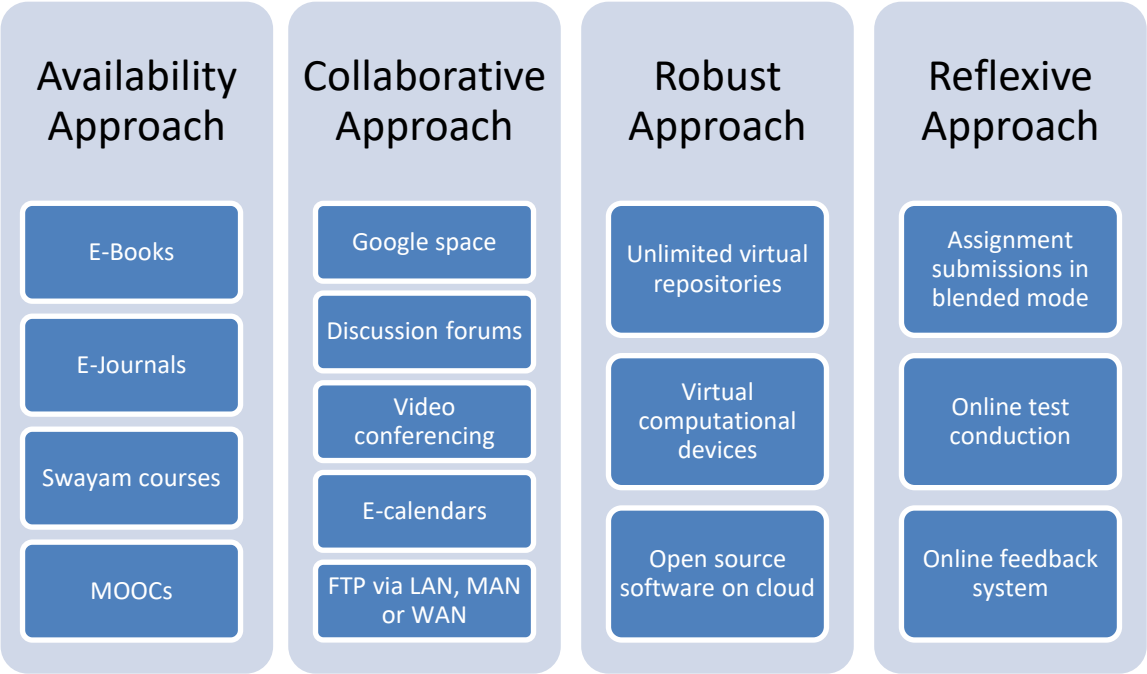


Figure 4: Teaching pedagogies adopted at PIET for blended learning

Conceptual Analysis: To analyze the efficiency of blended education the following parameters were chosen. 1. Responsiveness of students reflected in feedback system. 2. Assignments submissions by students. 3. Participation by students in internal evaluation system. 4. Inculcating the culture of LEARN anywhere, anytime, and collaborative activities across nation and diversified teams. 5. Robust teaching and learning system even during corona pandemic. 6. Participation of students in workshops and bootcamps. 7. Academic pass percentage of students. 8. Higher package placements and better role of students. 9. Participation of students in college/intercollege and national level competitions. 10. United Nations of Academic Impact membership (UNAI).

D) Blended Education Outcome and Future Scope: Considering the case study of B.Tech – CSE(Honors) as depicted in table 2, it was observed that students involvement in classes was improved a lot as it gives the flexibility to absentee students to go through their previous lecture before coming to next class. Because of more student, their academic results including assignment submissions were also improved. At the departmental level also, two types of subjects were offered as an add-on course. One category consists of those subjects that are prerequisites for some courses but are missing from KUK curriculum and other consists of category of subjects that are highly demanded by industry. Further, students in various minor specializations are offered identified subjects as per their specialization from Swayam and their credits are transferred on to their academic degree. This complete combination of subjects made the students more versatile with better technical skills. Due to better skills, they are also winners of college/state/national level competitions. In future, various emerging techniques can be applied on different batches data so as to calculate optimal combination of blended education that gives the best students' performance with optimized usage of PIET resources.

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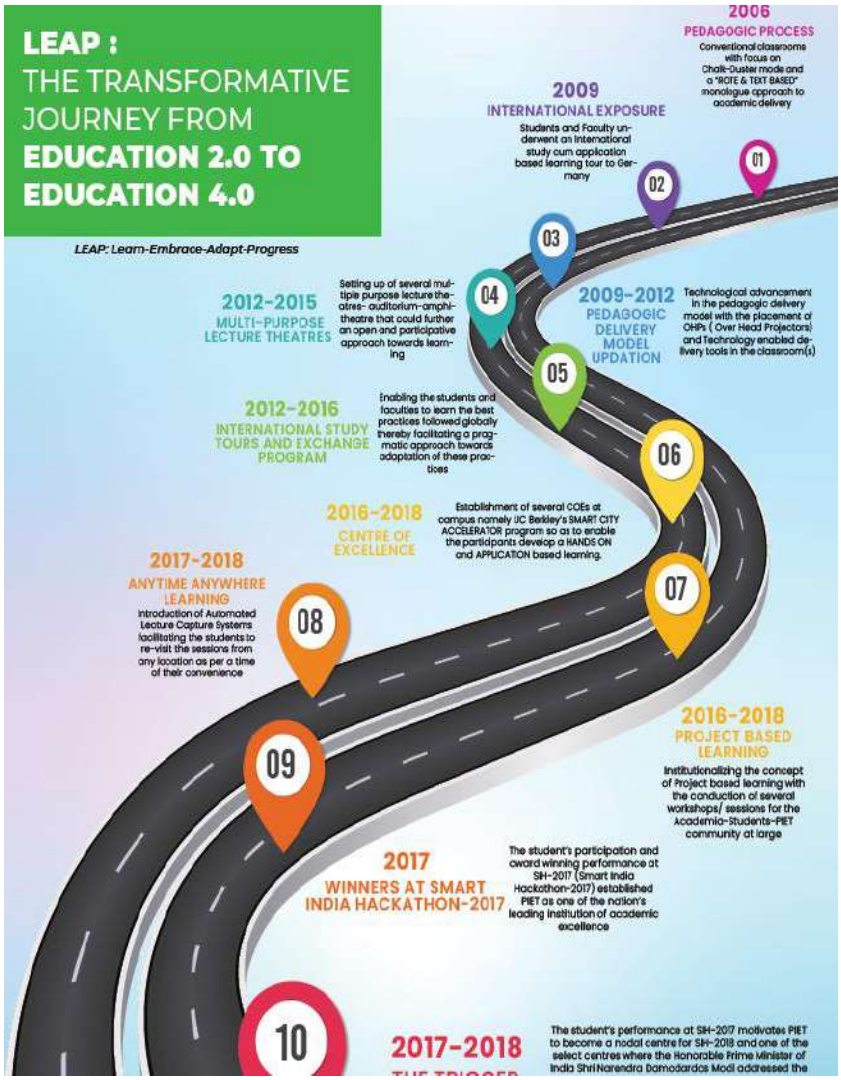

Figure 5: Transformative Journey of PIET From Education 2.0 To Education 4.0

Narrative Inquiry to Understand the National Achievement Test of Primary and Secondary School Students in Misamis Oriental, Philippines

Sarah Namoco
College of Science and Technology, University of Science and Technology of Southern Philippines, Cagayan De Oro City, Philippines

Abstract: The results of national and international academic assessment for basic education students in SY 2017-2018 revealed that the Philippines is lagging behind other countries. This study therefore aims to explore the lived experiences of school administrators and teachers regarding their perceived factors that may have shaped the National Achievement Test (NAT) performance of primary and secondary school students in the four Department of Education divisions in Misamis Oriental, Philippines. This study employed narrative inquiry research design. Personal interviews were conducted from of 28 purposively selected participants. The conventional content analysis approach to analyze the data revealed that poverty, academic unpreparedness, familial and environmental issues, student motivation, insufficient instructional materials and perceived DepEd policies inform that NAT results. Discussion and recommendations for policy-making and curriculum enhancement are also presented in this study.

Keywords: Department of Education (DepEd), Misamis Oriental Philippines, NAT, Narrative Inquiry, Social Sciences

Introduction: In the Philippine Education System, in line with the implementation of the Enhanced Basic Education Act of 2013 (Republic Act No. 10533), the Department of Education is implementing several policy guidelines to ensure access to quality basic education. DO 8, S. 2015 (Policy guidelines on classroom assessment for the K to 12 Basic Education Program) and DO 55, s. 2016 (Policy guidelines on the National Assessment of student learning for the k to 12 basic Education Program) are being enforced to measure learner's progress and academic performance. The system assessment under K to 12 curricula, uses both national and international large-scale assessments to determine the education system's effectiveness and efficiency. National Achievement Test (NAT) is one of the large-scale assessments implemented by the department of Education through Bureau of Educational Assessment (BEA). NAT is administered for Grade 6, Grade 10 and Grade 12 students. It aims to monitor the Philippine education system and schools for public accountability; assess the effectiveness and efficiency of the delivery of education services, provide information that will guide decisions on instructional practices; determine if learners are meeting the learning standards of the curriculum; measure students' aptitude and occupational interest for career guidance; and assess prior learning for placement, accreditation and equivalency [1]. The performance of Grade 6 students in the NAT has been steadily declining in the last three years, placing them at the "low mastery" descriptive level of the Department of Education (DepEd) [1]. Moreover, the Philippines join the Programme for International Student Assessment (PISA) in 2018. Result showed Philippines rank at the bottom for performance in reading, and second lowest for both Mathematics and Science among the 79 members and partner countries. The children are the hope of tomorrow [2]. However, basing on the reported declining NAT performance of the Basic Education learners in the last three years, it seems that young learners could no longer sustain the hope of the future. Hence, it is

imperative to explore the factors that shaped the learners' NAT performance. In so doing, this study will be able to help curriculum designers, implementers and policy makers to address this gap in knowledge and practice. Moreover, the results of national and international assessments could be a basis for policy making and curriculum review to provide quality basic education: to critically, improve teaching facilities and equipment, upskill and reskill teachers, and get support from all sectors and communities [3]. For this reason, this study aims to identify the root factor that shape the NAT performance of primary and secondary school students in Misamis Oriental in the SY 2017-2018 as basis for future policy planning and development especially in the curriculum design.

Review of Related Literature: Factors that Affect Standardized Tests Socio-cultural factors that affect achievement in standardized tests in a comprehensive meta-analysis done on Latinos, African-Americans, and American students, results revealed that religion yielded the highest effect size as a tool to reduce achievement gaps [4]. It was believed that religious commitment influences academic achievement by providing a religious work ethic, providing an internal locus of control, and discouraging students to perform undisciplined and harmful behaviors [4]– [6]. Similarly, the effect of religion was also examined in Brazil in terms of their performance on standardize university exam. They found out that Catholics and Protestants scored lower compared to Jewish, Afro-religion, or others [7]. On the contrary, atheists scored higher compared to those who declared to have some kind of religious beliefs. Other than religion, ethnicity or race has also been examined in terms of its effects towards students' academic achievement in standardized tests. In many countries, students from ethnic minority groups often have lower academic achievement than those of from ethnic majority groups [8]– [10]. In one study, they found out that the teacher's positive implicit prejudice towards the ethnicity of students favors their academic achievement. [10]. More so, Black and Hispanic students were also noted to have lower academic achievement in science compared to their White counterparts since they have lesser access to school resources [11]. In addition, the effect of race in students' achievement in science was found to be more in Grade 3 and then reduces when the student reaches Grade 8 for Black-White, Hispanic-White, and Asian-White paired comparisons [12]. Geographical location factors that affect performance in standardized tests: The variables to study academic performance can be taken on multiple fronts, and in an ever-growing population; communities are created at various levels and context. These social settings are mostly categorized as being urban, rural or suburban. Urban communities refer to the city or being located in the city where economy and politics converge and strive, while rural is exactly the opposite of the former. Rural communities refer to the countryside wherein almost everything is far lax and simple. And a suburban is a spot surrounding the city or just adjacent to it. Usually, it's in the suburban where most of the working class live. In this chapter we shall focus on the dichotomy and the deconstructed aspects of Urban and Rural variables in relation to the academic performance of learners. The issue on disproportionate allotment of basic education systems is a vital area to explore on given that its impact on academic performance is arbitrary. This is with special emphasis on the access to basic education with the hopes of addressing the comparison between the trajectory of the academic performance in the basic education and the causations of the students lagging academic performance [13]. Educational research on rural/urban differences in achievement and success in higher and basic education has been cautiously explored [13]– [16] In fact, educational outcomes of rural students are found to be worse than those of urban students [17], [18] since apparently rural educators are less academically prepared than city schoolteachers [19] evident this is of inequity of basic education [20] compounded by the lack of resources and weak policies [21]. A Barcelona-based Research Institute of Applied Economics (2012) compared the 2006 and 2009 Programme for International Student Assessment (PISA) of Columbia that yielded most of the differential in urban and rural academic performance is attributable to family characteristics as opposed to those of the school. In 2018, the Department of Education of the Republic of the Philippines conducted a similar study, although the latter is much comprehensive such that the comparison of academic performance by community is but one of the many variables they considered, the DepEd report revealed that the mean Mathematical Literacy score of students in

urban areas (365 points) was significantly higher than that of students in rural areas (329 points), while the average performance of students in urban areas for Scientific Literacy was 370 points, which was significantly greater than the average performance of those in rural areas (333 points), whereas the mean Reading Literacy score of students residing in urban communities (355 points) was significantly higher than the mean score of those living in rural communities (313 points). As can be inferred, all context (Reading, Math and Science) covered by the PISA showed the dominance of urban learners over the rural ones. Striking may the difference be as both have different sets of indicators, yet still both studies support actions in addressing challenges of low academic achievement at the basic education level [13], rural and urban, specifically the improvement of the learning environment such as size and teacher/student ratio [17], [19]. Further, in the Philippines, according to Zamora and Dorado (2015), the main contributor of the educational inequalities at the national level is the Urban-Rural Gap, while in the province the case is more of an intra-provincial factors or inequalities within the rural areas itself. Socio-economic factors that affect performance in standardized tests: The cognitive ability of students is not the only explanatory variable considered for student performance [22]. The other prominent explanatory variable emphasizes on the importance of socioeconomic status (SES) or the non-cognitive ability of an individual. Moreover, socioeconomic status and racial factors have been noted to hinder the improvement effect of school interventions in standardized tests across elementary to high school [23]. Family background of students has been long established to be strongly correlated to student's academic achievement. In the report of Walker et al. (2005), it was found that students who come from higher socioeconomic status families possess higher academic achievement even after adjusting for genetic factors. This was believed to be true since families with more financial resources are capable of providing more educational materials to create a richer learning environment [25]. Similarly, rich families have more social or cultural capital that allows them provide their children with opportunities to be acquainted with friends and relatives who possess sufficient skills and resources [26]. Furthermore, the SES of families during adolescence was found to have more potential to alter academic trajectories and the 9th grade socioeconomic status had a stronger predictive power towards achievement in mathematics compared to other grade levels [27]. Meanwhile, the poor student performance has been understood as due to socioeconomic and demographic status as they often strongly associated. However, the literature is not yet final with this. In an analysis between cognitive and non-cognitive influences, socioeconomic status had only a moderate effect while the early childhood cognitive ability and prior achievement of students had the most dominant influence on student achievement [22]. This implies that SES may or may not have influence towards student achievement. In addition, the effects of socioeconomic status of families to academic achievement of students tend to differ in terms of country and subject [28]. One of these socioeconomic statuses that possess substantial effect towards student achievement is the family income during childhood [29]. The potential underlying reason for this the relation between family income and student attendance. When children miss a class, they fail to benefit from the interaction they have with teachers, peers, and miss out on important learning activities designed to improve learning. Similarly, absences from school have been noted to be an important factor in later academic success [30]. Although student achievement is highly impacted by student attendance, family income fails to be associated with student achievement and class attendance. This implies that family income is not the sole determiner of student attendance and achievement [31]. On the contrary, students who come from wealthier families have better performance than those who come from poor families due to available opportunities of attending private education and additional tutoring classes [7]. Parent's occupational status was also studied in terms of its effects on achievement of students in standardized exams. Both parents' (mother and father) educational status possesses same statistical correlation with student's performance. On the other hand, the father's occupational status has influence on student's performance. It was found out that fathers who have work have better performing children compared to those with an unemployed father [7]. However, it is worth noting that a middle ground research between the urban and rural contexts has

been set aside entirely as there is a dearth of such research. To explore the challenges met in a suburban setting is an interesting context to consider that both highly rural and highly urban areas perform similarly, but less well, in terms of educational achievement than students from moderate areas- the suburb [32]. In summary, studies have been conducted determining the different factors that affect student's performance on national standardized exams. Religion, ethnicity, race, socio-economic status, family background, geographic location, and nutritional status of students were found to have both positive and negative effects on their performance on standardized exams. This existing divide in the literature prompts the conduct of this research to further examine the factors that affect student's performance in a nationally standardized test in the Philippines. Research Methodology: Research Design: In approaching this study, the narrative inquiry research design was employed. This research design is employed when the aim to the study is to reveal the relevant perspectives and deeper understanding about a situation on study [1]. This approach of investigation involved the personal interviews with NAT coordinators and school administrators from the identified schools. The participants to the interviews were purposely selected based on identified inclusion and exclusion criteria, namely: (a) must be a regular DepEd employee for at least two years prior to SY 2017-2018 to have a grasp of the NAT; (b) either a school administrator or a NAT coordinator; and (c) willing to take part in the personal interviews.

Data Collection: Before the interviews were conducted, permission was sought from the Schools Division Superintends of the four DepEd divisions in Misamis Oriental, Philippines. A letter of permission duly sought by the Research Office of the University of Science and Technology and authorized by NEDA was used as supporting document. The interview protocol used in this study was developed by the researchers based on the objectives of the study and was subjected for content validity test by three experts in the field of quantitative research [33]. The interview was conducted through mobile phone calls with the identified participants. Twenty-eight school administrators and teachers participated in the interview. The demographic profile of the participants is presented in Table 1.

Table 2: Demographic Profile of The Interview Participants

Code Name	Sex	Years in Teaching	Designation	School Size
A01_Elem	F	17	Teacher	Big
A02_Elem	F	20	Teacher	Big
A03_Elem	F	9	NAT Coordinator	Small
A04_Eem	F	12	Teacher	Big
A05_HS	M	10	Teacher	Medium
A06_HS	F	9	NAT Coordinator	Medium
A07_HS	F	17	Teacher	Small
A08_HS	F	20	Teacher	Small
A09_HS	F	17	School Head	Mega
A10_HS	F	13	Teacher	Medium
A11_HS	F	30	Teacher	Medium
A12_HS	M	10	Coordinator	Mega
A13_HS	F	15	Teacher	Medium
J01_Elem	F	10	NAT Coordinator	Medium
J02_Elem	M	6	Teacher	Medium
J03_Elem	F	13	Teacher	Big
J04_HS	F	14	Teacher	Big

J05_HS	F	6	Teacher	Big
J06_HS	M	7	NAT Coordinator	Medium
N01_Elem	M	17	NAT Coordinator	Big
N02_Elem	F		Teacher	Medium
N01_HS	F	4	Teacher	Medium
N02_HS	M	14	School Head	Medium
N03_HS	F	8	Teacher	Medium
N04_HS	F	7	Teacher	Small
N05_HS	F	12	Teacher	Big
N06_HS	F	17	School Head	Medium
N07_HS	F	8	Teacher	Medium

Data Analysis: The secondary data which was collected from the students' 2017-208 NAT results were analyzed using both descriptive and inferential statistics techniques. The first research question in this study was analyzed through descriptive statistics. The second question, the data were analyzed using two-way ANOVA to examine the influence of two division and school size towards the NAT scores of the students. For the third research question, the qualitative data were analyzed using conventional content analysis approach. This approach to qualitative data analysis Conventional content analysis is generally used with a study design whose aim is to describe a phenomenon, in this case the NAT [34].

Ethical Considerations: In this study, the researchers observed the ethical principles and considerations all throughout the span of study as stated in the university code of ethical practice. All data gathered were treated and remained confidential in adherence to the Data Privacy Act of 2012. Works of other researchers used in this study are properly cited and acknowledged, honestly gathered the data, results and did not misrepresent any methods and procedure of the conduct, favour to no bias in interpreting and analysing data and other aspects of research, consistent in thoughts and action, examine the work of the peers critically to not acquire any negligence and careless errors, openly acknowledge any new ideas and criticisms during sharing of data, results, resources and tools, and, aim to promote social good through advocacy, public education and research. Furthermore, this study does not use offensive, discriminatory, or other unacceptable language in any of its research materials such as survey questionnaire or consent forms. Finally, the researchers demonstrated and recognized responsibilities to protect all participants from any harm and promote collaborative, open minded, and respectful relationship among the participants, researchers and partners.

Results and Discussion: Employing the conventional content analysis, there emerged six themes that described the factors that inform the NAT performance of the students in the SY 2017-2018. The eight themes are (a) poverty, (b) academic unpreparedness, (c) parental and familial issues, (d) student motivation, (e) insufficient school resources, and (f) perceived DepEd policies.

Poverty: Poverty is the most reported reason that has influence towards the NAT performance of the students. Poverty is defined as the "a condition that results in an absence of the freedom to choose arising from a lack of what he refers to as the capability to function effectively in society" and is closely linked with "a lack of sufficient financial resources" (Servaas van der Berg, 2013, p. 1). According to Teacher A01, students have no time for studies as they are bound to perform household chores when they are home. When both parents are out for work, children are left to do the household chores, hence doing school assignments are often neglected. In addition, many of the students are balik-eskwela (school returnees). According to Teacher A08, these students are working students, juggling both work and studies at the same time. Because of this circumstances, Teacher A08 observed that students have no focus at work. They prioritize their employment as it generates them the income needed to buy foods for the family. Teacher N02 also shared that due to financial handicap, students cannot buy necessary learning materials. Egunsola

(2014) reported in his study that economic status of the parents has moderate correlation with their children's academic performance. Ferguson et al., (2007, p. 701) also reported that economic status of the parents "influence a child's educational attainment." These findings emphasized the ability of the parents to provide for the academic materials and facilities needed by their children for school. Egunsola emphasized further that poverty, if not appropriately addressed in educational policies, will continue as essential blunder in attaining the goal of narrowing the academic achievement gaps among the students.

Academic Unpreparedness: Most of the interview participants from all four divisions shared that the students are academically unprepared. Academically unpreparedness is operationally defined in this study as the students' difficulty in reading comprehension and numerical skills which are required competencies in the NAT. Teachers A01, A02 and A03 shared that many students have poor retention. Similarly, Teachers A01, A05, A05, A11 and N03 mentioned that a number of students have poor reading comprehension. In the same way, Teachers A07, A11 and No3 reported that students have poor numeral skills. These teachers concluded that the students have poor or no focus at all in their studies, or that they are not ready for academic competencies due to low cognitive retention. Previous studies report that students are more academically knowledgeable when they are mentally and cognitively prepared for the tasks required of them (Ewing-Cooper & Perker, 2013; NAGB, n.d.).

Familial And Environmental Issues: The familial and environmental issues as a theme is defined in this study as the situations within the family and the immediate community the contributes significant influence towards the students. According to Teacher J01, it has been observed that the students lack support for their parents. The parents do not care about the academic activities and requirements of their children. Teacher J03 supported this by saying that the parents do not make any follow up with their children's progress at school, and the students do not have support from the parents. Situations such as these, in addition with the experienced poverty, led the students to be involved in relationships with the opposite sex. The relationship is another factor that leads the students away from focusing on their academic responsibilities. Parental involvement to students' academic performance is of utmost importance. According to Bunujevac and Durisic (2017), it is essential that parents should forge a partnership and mutual responsibility with the school in addressing the students' academic welfare. It is confirmed that when parents are actively involved in their child's academics, students have strong and successful academic results and they perform better in school [40].

Student Motivation: Another theme that emerged during the data analysis is the student motivation. According to Teachers A03, A04, A07, A10 and A12, students have poor or no study habits at all, resulting from low motivation to their academic thrusts. One reason to this low motivation, according to J04, is that circle of influence of the students are out-of-school youths. The poverty that the students experienced also contributed to their low motivation. The poverty that the students experienced also contributed to their low motivation. The students are already earning, though at a very minimum wage, from the factories within the community, in the desire to contribute to their family's income according to Teacher N05. Based on the reports from the participants of the study, it can be deduced that the home location of the students shaped the students' motivation toward their academics. Egunsola (2014) reported that the locality where the home of the students is located influence their academic performance. Hence, there is an interaction effect of the home location with motivation towards its influence with the academic performance. According to Na et al. (2020, p. 182), the role of motivation is highly essential as it impacts the way students learn. Moreover, motivation determines the students' persistence towards their academics thus influence their performance and level of engagement. There, they concluded that "motivation element cannot be neglected."

Insufficient Instructional Resources: According to Mwili Ruth Kimeu and Tanui Edward (2015, p. 70), "Instructional resources are important factors during the implementation of curriculum. They help the implementers to realize their goals and give guidance to the teaching-learning process which leads to realization of good students' academic

performance." In this study, teacher-participants reported that there are no sufficient review materials for the students to use in preparation for the NAT. According to Teacher J05, 'review materials are not enough" as there is only one book for several students to share. Teacher N02 also shared that the review materials/ resources for the students to use during review sessions is insufficient. Meanwhile N01 mentioned that there is "Insufficient number of Math teachers." Several Math teachers are out-of-field ones. This means that the teacher could be an English or Science major but due to scarcity of teacher in Math, they are assigned to teach Mathematics subjects. Cases such as these, according to Teacher N06 leads to less preparation for the NAT. It was reported in the study of Mwili Ruth Kimeu and Tanui Edward (2015) that students' academic performance depended on the availability of teachers' resources such as reference books and guides, students' and teachers' textbooks, and laboratory apparatus as teaching and learning materials. It was concluded in their study that "instructional resources are important factors during the implementation of curriculum" which subsequently "leads to realization of good students' academic performance.

Perceived DepEd Policies: Every educational institution has its own set of educational policies to deliver and implement high-quality education as well as increase reform [43]. Policies serve as "the basis for every official action of an organization" (Okoroma, 2006, p. 245). Such educational policies shape the experience of each individual learner [45]. As observed by Teacher J03 within 13 years of teaching in a big secondary school, there is curriculum mismatch between the competencies taught in school and the competencies tested in the NAT. Teacher J05 explains this by saying that there is a mismatch in the coverage of NAT Exam to the competencies in the curriculum guide. Teacher J05 further mentioned that there are too many competencies covered in the NAT, however, due to many constraints in the classes, not all lessons are covered during classroom instruction. Teacher N03 also shared that there are too many competencies required in the NAT. They cannot fully cover these competencies during classroom instruction because there are too many extra-curricular activities at school. Teacher A10 mentioned that local and city activities where students need to participate cause class disruptions. Another educational policy that the teacher-participants shared is the implementation of the Edukalidad, "no student left behind," and Balik-eskwela policies. Edukalidad is a combined Filipino terms edukasyon (education) and kalidad (quality); Balik—eskwela is another combined Filipino term from balik which means return, and eskwela means school. According to Teachers N02 and N04, there is a "wrong interpretation" of these policies. Educational supervisors and school administrators "push" the teachers to promote students even if they are not yet ready to be promoted in adherence to the "no student left behind" policy. In the same way, schools are prompted to "accept students even if they are not ready," according to Teacher A07. Another policy that teacher-participants observed as a hindrance to the achievement of NAT, according to Teachers A10, J05 and N02.

Conclusions: In conclusion, the factors that shaped the NAT performance of the basic education learners are viewed from two perspectives: familial and DepEd. The familial factors included poverty which subsequently rippled down to academic unpreparedness, familial and environmental issues, and student motivation. On the other vein, the factors from the DepEd's end included insufficient instructional resources and the misconception of DepEd policies. Based on these findings, it is recommended that these issues be addressed by government policy-makers and DepEd's curriculum designers. More resources may be provided to schools to boost NAT Performance. Okoroma (2006) emphasized that while a policy defines the area in which decisions are to be made, policy does not make the decision. It only serves by providing a general guide that facilitates decision-making, a direction for educational activities. He concluded that if we do not consider how educational policies complement of conflict with policies related to family welfare, work, poverty, housing and neighborhood conditions, then we will continue to face significant obstacles in attaining the goal of narrowing the achievement gaps [36].

Potential Utilization and Impact of The Research output: Results of this proposed study will benefit the policy makers and curriculum reviewers as well as the DepEd administrators in revisiting the primary and secondary

education curriculum. Likewise, it is also hoped that appropriate professional developments seminars and workshops may also be arranged for the upgradation of the school teachers to help improve the NAT performance of students.

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Home Science in Day-to-Day Life

Kottapparampil Gopinathan Jaimol
Mahatma Gandhi University, Kerala, India

Abstract: As the name suggests, home science is referred to the home, happiness and the health of the people living in it. When an individual takes up home science as a subject in higher educational institutions, he acquires knowledge about various areas, such as food and nutrition, resource management, human development, textiles and clothing and extension and education. The knowledge and the information regarding these areas not only helps a person in enriching his career but he also gains an understanding about how to adequately maintain his home, family and obtain a successful career. In an individual's life, his family and home play an important part. Family and home are considered to be the first institutions, from where an individual learns various things such as, norms, values, ethics, and cultures. Good quality education and employment opportunities are provided to the individuals through his family and home; therefore, it is vital for the individuals to possess efficient knowledge regarding the management of family and home. The main purpose of this research paper is to understand the meaning and significance of home science in everyday life. The main areas that have been taken into account are, significance of home science, purpose and meaning of home science, constituent areas of home science, objectives of home science, and career opportunities in home science. The individuals are required to prepare themselves about how to make use of the resources in a proper manner to make their lives contented and well-to-do and this is improved through the subject of home science.
Keywords: Home Science, Home, Family, Individuals, Management, Knowledge
Introduction: Home science is also referred to the science of managing the home. This subject is concerning all the things that concern one's home, which includes family members and the resources. The understanding of home science has the main purpose of acquiring satisfaction for an individual as well as his family members through making efficient use of the resources. The operative management of the resources, one's home and taking care of all the needs and requirements of the family members is studied in what is known as home science. Through this subject an individual learns all the arts as well as the sciences of how to manage one's home in an effectual manner. There is provision of all the scientific knowledge and the areas that are involved in making the home aesthetic (What is Home Science? n.d.). Home science makes provision of all kinds of knowledge and information to the individuals that are required to manage the home in an efficient manner. There are numerous areas that are required in the management of one's home; these are, effective communication with the family members, cleanliness, having appropriate appliances and electronics, civic amenities, facilities, diet and nutrition, personal appearance of an individual, utilization of resources, the internal and the external environmental conditions, and possession of skills and the creation of an environment that can lead to a successful career. With the transformations and the changes coming about in the social and economic environment, the management of the home, requires equal contribution on the part of men and women. The subject of home science leads to the development of possible job opportunities for the individuals, both personally and professionally (What is Home Science? n.d.).

Significance of Home Science: Home Science provides knowledge to the individuals to deal with new challenges and advancements. In the present existence, there have been modernization, introduction of innovative techniques and methods, experiencing new challenges, how to deal with knowledge generation, technological advancements, new developments and increasing requirements of the individuals for a positive existence within the society. Home Science is one such subject that trains an individual to deal with all the tasks with self-reliance, resourcefulness and self-sufficiency, the challenge of changing times for achieving contentment and pleasant living. The important areas have been stated below (Home, Family and Home Science, n.d.).

Importance for Individuals - Home Science enables an individual to understand the scientific knowledge and develop skills that are required for illustrating an efficient performance of the household responsibilities. Whether an individual is managing a small household or a big household, management of the household always requires capabilities, proficiency and hard work. Skill is referred to as the process of applying theory based knowledge into

one's day to day life. For example, opposing social pressures to adopt unhealthy eating practices by rejection is a skill. Seeking services for assistance with marital issues or problems with the children is another skill. Development of positive skills leads a person towards contentment and gratification. It will also prepare a person to take up wage or self-employment.

Importance for Home and Family Life - The emphasis laid upon the subject of home science is to support home and family life by creating an optimum use of the obtainable resources. It will assist a person to apply the information of various sciences for enlightening home and family environment, healthy growth and development of the individuals and in the management of the household resources. This is the only subject that deals with food, attire, shelter, health, human relationships, communication terms, household resources and concerns of the individuals that exist within the home and within the family. Family is the smallest social unit of a community. The involvement of home science in the complete enrichment of the family assists in the development of community and nation on the whole.

Importance for Economic Stability – Various areas of home science prepares an individual for a variety of jobs. The economic stability of a home and family can be ensured by attaining a job or self-employment. It is essential for the individuals to generate a source of income, as all the functions and operations of the home can be implemented in an efficient manner when individuals will have an appropriate source of income. Sources of income, jobs and employment opportunities would largely contribute in increasing the living standard of the family and quality of life.

Purpose and Meaning of Home Science - The understanding of home science helps an individual to lead a more satisfying, personal, family and community life. The areas regarding which this subject enhances the knowledge and information of the individuals contributes in maintaining effective communication, terms and conditions with the family members, as well as community members, implementing one's household tasks and functions in an operative manner, an individual learns to become self-sufficient, he acquires understanding of various areas, develops skills amongst himself in order to carry out the daily life activities and learns to inculcate cultural norms and values amongst himself. When an individual learns home science, he makes this field applicable in putting into operation all the activities of his daily life. The subject of human science makes available maximum opportunities for the individuals to develop leadership skills amongst themselves (Home Science: Concept and Scope, n.d.). Home science education leads to the development of all the qualities needed for responsible citizenship and also to become efficient leaders in various areas, such as nutrition, garments designing, teaching, women and child development and so forth. Home science education assists in obtaining recognition of the significance of food that is required for a healthy living, it also teaches how to prepare food by retaining its nutrients and the significance of a balanced diet. The problems that exist within the family and household are numerous, such as relating to growth and development of children, purchasing of household items, marital relationships, paying bills, obtaining good education and employment opportunities, organization of functions and events, cultural norms and values and so forth. What is important is that individuals should obtain an understanding regarding how to provide solutions to these problems in an appropriate manner (Home Science: Concept and Scope, n.d.). Individuals in some cases find problems in obtaining jobs and employment opportunities. In this case, home science education helps an individual to instigate self-employment and become a wage earner at a young age. The curriculum and the instructional methods in this subject enable an individual to take wise decisions regarding the utilization of materials and resources. The person who takes up home science as a subject, learns how to nurture the young and lead to their healthy growth and development. In the present existence, it is also essential for an individual to obtain technical knowledge for both professional and personal use, hence, this subject contributes in acquiring an understanding of technical knowledge (Home Science: Concept and Scope, n.d.). This education leads to personal and professional development of not only an individual who is acquiring training in this subject, but all the members of the family

(Shekhar, & Ahlawat, 2013).

Constituent Areas of Home Science - The major constituent areas of home science have been stated as follows: (What is Home Science n.d.). Food and Nutrition – Food and nutrition is a fundamental concept within the lives of the individuals and all individuals are required to possess efficient knowledge regarding this concept. Food provides energy and essential nutrients to the human body, which enable a person to implement all the tasks and functions in an efficient manner. In this area, food science, clinical nutrition, community nutrition and institutional food service are the main concepts that are focused upon. The preparation of food is an important area in the case of food and nutrition, when the food is adequately prepared only then the individuals take pleasure in the consumption of food and obtains all the nutrients. Textiles and Clothing – Textiles and clothing contribute an important part in forming the personality of the individuals. When an individual visits some place, goes to work, educational institutions or even shopping malls, it is important that he should dress and present himself in a clean and a tidy manner. The personal appearance of an individual gets enhanced by his clothing and sense of dressing. The main areas in this case are, clothing construction, textile science, textile designing, garment designing, and care and maintenance of the clothes. The clothes which require ironing should always be ironed before they are made use of. The status and background of an individual is judged through the clothes that he wears. Resource Management – The management of resources within the house is regarded to be an imperative area. There are numerous kinds of resources that are managed within the house, these include, equipment, furniture, kitchen appliances, electronics, machines, devices, utensils, finances, wealth, property, valuables and so forth. An individual who is utilizing all the resources within the house is required to possess adequate knowledge and information about how to make use of them. Within some households, there are gardens and plants, hence, the management of gardens and the plants is an important area, which requires efficient management of resources. Proper water management and management of electricity and other civic amenities are vital areas. Human Development – In the case of human development, the growth and development of the children, care of the elderly individuals, care of the individuals who are not having good health, and aspects like adolescence, marriage and family welfare and guidance are the areas that are an integral part of human development. The proper values, ethics and cultural traits are communicated to an individual within his family. When an individual communicates with his teachers, colleagues, employers, friends, neighbors and relatives in a polite and a respectful manner, then he makes his parents feel elated and makes use of all the values that they have taught him in an appropriate manner. Extension and Education – The family and the house of the individual is the first and the foremost institution that provides him all the knowledge about how to become a good human being. The measures that are vital for an individual to become successful in educational institutions, employment opportunities and leading to an overall wellbeing are provided to the individuals through his family. In the area of education and extension, the main aspects are, preparing of home science educators, community services and welfare and non-formal education. An individual may be interested in a number of areas, such as preparation of meals, making of handicrafts and artworks, playing various sports and so forth. He may not always join educational institutions and training centers in order to develop these skills amongst himself, but his parents and other family members may contribute in leading to development of these skills and talents.

Objectives of Home Science - The main objective of home science is to enable the learners to improve the quality of their personal and professional lives and contribute towards the betterment of the family and community. The main objectives have been stated as follows: (Curriculum in Home Science (Secondary Level), n.d.). 1. An individual learns to identify his own strengths and weaknesses. The weaknesses are always needed to get improved, hence, a person also becomes aware of the measures that are needed to get utilized in order to improve the weak areas. 2. Within the household, implementation of important tasks and functions do require efficient decision making and problem-solving skills; these are essential to make informed choices. Hence, through home science, an individual

learns how to make wise decisions and selections within the household. 3. An individual learns to develop sensitivity towards the needs of the family and society. In a family, there are number of problems that come up, for instance, putting into operation the household tasks, looking after the health conditions of the elderly members of the household, helping the children with their homework assignments and so forth. 4.The knowledge and the information that an individual obtains within his house are required to get efficiently implemented in all walks of life and throughout one's life. For instance, when a person is taught by his parents that he should always keep himself calm and peaceful in all kinds of difficulties, problems, and crisis situations, never show anger at anybody, and he understands these, then he would always implement these aspects throughout his life. 5. The individuals are also required to play an important part in maintaining the cleanliness of the environment within and outside one's home. For this purpose, it is recommended that there should be greenery around, various kinds of pollution should be prevented, etc. The health requirements of the individuals are also important and one needs to possess the basic skills which are required to improve them. 6. The occurrence of disputes and conflicts are common within the households, these may occur sometimes between parents and children, between spouses or between siblings. Therefore, it is important that conflicts and disputes should be resolved in a peaceful manner. Peaceful conflict resolution procedures enable in strengthening interpersonal relationships and maintenance of peace within the house. 7. An individual experiences number of problems, difficulties and negative situations in his life, these negativities arouse feelings of anger, frustration, antagonism, stress, depression and anxiety amongst the individuals. Their family and households are regarded to be the areas that help an individual in overcoming these attitudes and behavioural traits. Family members are the ones that are available to make provision of support and assistance in case of all difficulties and problems, therefore, it is vital to maintain effective relationships with the family members. 8. There are number of organizations and institutions with which individuals form connections and associations, such as, educational institutions, workplaces, community centres and so forth. In all the places, he is required to maintain effective terms and conditions in order to learn to lead to growth and development. Therefore, the subject of home science enables individuals to acquire understanding of the human developmental processes and how to utilize them in order to strengthen interpersonal relationships.

Career Opportunities in Home Science - Individuals do take up home science as a subject in higher educational institutions. They pursue educational programs in this subject. The main career opportunities in home science have been stated as follows: (What is Home Science? n.d.). Food and Nutrition – In the case of food and nutrition, individuals can open their own restaurants, tea stalls, coffee shops, canteen, catering service, or even provide cooking classes to the other persons. These work opportunities can be their own or they may get employed as cooks or chefs in some other places. Interior Decoration – After obtaining a degree in home science, a person can also obtain employment as an interior decorator. In the field of interior decoration, there are number of areas, such as furniture, show case and window display design, information regarding the decoration of the homes, organization of various materials within the home and so forth. Arts and Crafts – There are various kinds of arts and crafts, such as fabric paintings, canvas paintings, different kinds of embroideries, glass paintings, tie and die, making of garlands, other decorative items, sculptors and so forth. When individuals possess efficient knowledge and skills regarding the making of arts and crafts, they are able to either establish their own businesses, they make various kinds of items and sell or even conduct classes, where they teach other people how to make various arts and crafts. They may also work as designers and staff at the production units and other places.

Textile and Garments Designing – In this field, individuals possess the skills regarding garment construction, dress designing and textile designing. This information enables an individual to look for jobs and employment opportunities in companies or boutiques, where they deal with production of garments and textiles. There are women who set up their own boutiques and hire people who possess efficient knowledge in textiles and garments designing. Teaching – The individuals who are interested in teaching may conduct tuition classes at home or get

employed in an educational institution. They normally take up one of the areas of home science as their subject. The educational institutions may be polytechnic institutions, play schools, day care, schools and colleges. There are women who even establish their own play schools after obtaining a degree in home science.

Conclusion: The subject of home science has an important part to play in an individual's life. This is an educational program in colleges and universities which contributes in the generation of professional knowledge within the individuals. When individuals do not take this as a subject in educational institutions, then information is provided to them by their parents regarding the effective management of home and family. The significance of home science is regarding three important areas, importance for individuals, importance for home and family life and importance for economic stability. This subject enables an individual to become self-sufficient and generate a source of income, as fulfilment of the household and family requirements needs a sufficient source of income. The main constituent areas of home science are, food and nutrition, textiles and clothing, resource management, human development and extension and education. The individuals learn number of other areas too in the subject of home science. They learn how to adequately deal with all the problems and difficulties; they learn to take efficient and wise decisions regarding number of areas; they learn to develop problem solving skills; how to effectively communicate with the people; maintain cleanliness, and implementation of conflict resolution and dispute settlement procedures. Besides the development of knowledge and information regarding all the important areas, an individual looks out for various career opportunities for themselves. The various areas, where individuals can obtain jobs or self-employment include, food and nutrition, interior decoration, arts and crafts, textile and garments designing and teaching. Managing one's home and health and obtaining a successful career are the two important objectives within the lives of every individual. The combination of art and science is common in some of the areas of home science and these are, interpersonal communication between the family members, family that provides support and assistance, diet and nutrition concepts, the resources that are utilized in the maintenance of the home, the environmental conditions need to be favourable within the home and individuals should develop the skills and expertise that lead to a successful career.

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Create-My-Course: An Automated Course Generator for Self-Paced Programs

Buddhika Sandaruwan
Sri Lanka Institute of Information Technology, Malabe, Sri Lanka

Oddugama D D
Sri Lanka Institute of Information Technology, Malabe, Sri Lanka

Fernando T S D
Sri Lanka Institute of Information Technology, Malabe, Sri Lanka

Ekanayake E M B S
Sri Lanka Institute of Information Technology, Malabe, Sri Lanka

Abstract: Live lectures and uploading recorded lectures to any server are the two conventional methods of distributing lectures to students. Due to the proliferation of new technologies in the modern world, people are gradually switching to the asynchronous learning approach, in which lectures are uploaded to a web server and made available to students at any time and from any location. This solves issues for students who can't get together for a live teleconference at a certain time or who don't possess a computer and must utilize borrowed or public computers to complete the course. However, the issue with the current trend in the globe is that it is not an effective method of learning and cannot be used to produce efficient results. We have discovered that there are a few causes for that after conducting some investigation. Under these conditions, the research presented here suggests using Create-my-course, an asynchronous e-learning platform that encourages active participation from students. When students are found to be inattentive, they are provided with opportunities to engage in a wide range of activities. These activities include segmenting the recorded materials into topic-based sections to make the content easier to understand, providing a summarized lecture note in English, Sinhala, and Tamil, answering questions in three different formats and having an AI assistant that is available 24/7 to reach out to students. With these capabilities, Create-my-course is offered as an all-inclusive system that distinguishes itself from existing e-learning platforms and assists educational institutions in delivering flexible, self-paced, asynchronous learning to its students.

Index Terms: AI, Asynchronous, E-Learning, Machine Learning

I. **Introduction**: In the previous era of learning, students and lecturers used to teach and learn by gathering physically in a classroom. This continued for over a century until recently, when there was a radical advancement in technology where learning was coupled with multimedia with the use of the internet and was called E-learning, which means enabling access from anywhere to every person on this planet. This was a significant breakthrough in the education industry. It has helped people to study what they like or to check their field of interest by watching learning content from various platforms like LinkedIn Learning, Coursera, Udemy, Codecademy, etc [1] The fundamental goal of the e-learning research domain is to improve the quality of teaching and learning. It is important to accommodate the learning preferences and demands of the students. Effectiveness and efficacy need to be increased. Increasing user accessibility and scheduling flexibility will help students become more involved in the learning process. Around the world, there have been numerous research efforts in the field of e-learning. The "Create-My-Course" project is mostly asynchronous learning-focused. Asynchronous eLearning may make use of email, blogs, discussion forums, eBooks, CDs, and DVDs, among other technologies. Learners can download materials and access information at any time. Asynchronous learning was more popular among students than synchronous learning since it allowed them to attend online classes whenever it was convenient for them and without interfering with their regular routines. These platforms paved the way to access lecture materials through mobile phones and computers, enabling people to access them while they were at home without wasting time traveling. The advantage of this technology is that it saves a lot of money [2] for people who were traveling to campus by vehicle and saved time at the same time. But still, most people used traditional learning techniques to deliver lectures to students until the year 2020 when a devastating incident happened in the world. The new virus

“Covid Virus” started to spread in every part of the world. The death toll of human lives began to escalate every second. Because of this escalation of the death toll, every government in the world started to isolate every person in their houses to prevent the spreading. This was the triggering point for the E-Learning sector to escalate rapidly. Every lecturer started to conduct lectures by delivering them through various online platforms to students since the pandemic. [3] To give an effective way of teaching people most platforms have introduced micro-learning, where the lecture gets broken down into small fragments or pills of content, also known as micro-content. This has shown significant progress and efficiency in learning where the majority of people are now using this method of learning because they can gather the learning content part by part and store it in their memory swiftly. The issue with this platform is the background noises because most lecture contents were recorded at the house. Eliminating background noise with segmented lecture videos will give the student a better learning experience. It is only possible to assess a student's level of comprehension after a lecture through the use of questions. [4] However, there is no tried-and-true method to evaluating the effectiveness of asynchronous learning. This system suggests adding a new function to that platform, which will monitor each individual student's level of knowledge. The majority of students prefer to improve their academic performance by using online tools, and they would like to see a greater emphasis placed on utilizing technology. [5] [6] The majority of students have indicated that they are most comfortable using online quizzes to evaluate their subject-matter expertise. When it comes to manually creating exam questions, educators are often faced with a challenging situation, which is made even more challenging when they have a limited amount of time. A considerable investment of time and effort is required in order to produce test questions that are up to the required standard of quality. At the end of each video is a quick quiz that is automatically generated and serves to test the students’ understanding of the content. The student will not be able to go to the subsequent video or activity if they are unable to complete the quiz with a passing grade. In addition, students need support in order to comprehend how their papers will be graded. Students can gain a better understanding of the type of response that was anticipated of them by looking at old examinations. Students will be able to determine approximately how many points they will obtain using this strategy. When it comes time for pupils to take their actual tests and prepare their responses in the appropriate manner, this can come in very handy. Students can evaluate themselves by analyzing old papers to find their areas of academic strength and improvement. The accuracy of students' responses will become an increasingly important criterion for evaluating their level of comprehension as well as the quantity of information they have retained from a lecture or lesson. Additionally, it will serve as a method for determining how well students are doing overall with that particular lecture or lesson. Put in place instruments and techniques of evaluation that you can trust. Implement a way to confirm that student responses provided for this component are accurate, and then make sure to convey the actual answers to the students who provided the answers. Because past questions offer a glimpse into the context of the exam, studying with them is an essential part of the process. [7] One of the most important advantages that comes from studying past exams is that it gives students the ability to predict the subjects that are most likely to be tested on during the forthcoming examination. Examining past paper questions can help students save a substantial amount of time on topics that are not likely to be covered on the test, hence making revision significantly more productive. This is because the majority of classes cover a diverse variety of subjects. Through the use of sample questions, students are able to detect and recognize distinct question categories. It is absolutely necessary to have a solid understanding of the format of questions in order to do well on examinations. In addition, the system should establish a method for supplying pertinent prior exam questions to the part of the lecture that they are covering. The students have always had trouble following the teachers' teachings on pronunciation since live and recorded lectures are plagued with personal ticks and audible interruptions that make it impossible for them to focus on the verbal components. Some students may have difficulty watching lecture videos because they are frequently interrupted or have trouble understanding the lecturer's voice, which is frequently caused by background sounds.

As a consequence of these difficulties, the students may not be able to fully comprehend the material that is being presented in the lecture. Because the lectures that are given to the students are provided in an asynchronous format, and because there may be some students who are unable to understand what the lecturer is saying, it is best to have a method for transcribing the lectures in case issues of this nature arise. In addition, throughout the lectures, the vast majority of students won't be able to take notes. [8] They are unable to produce their own class notes since it requires a significant amount of labor and there are a significant number of explanations that are complex. The students would not be able to remember the supplemental material that the instructor went through during the course of the lectures but which was essential to the discussion. [9] Some of the pupils are in a truly precarious position as a result of the language barrier. [10] In order to better accommodate the needs of the students, the transcription will be made available to them in three different languages: English [11], Tamil, and Sinhala. In addition, individuals who are unable to take notes during lectures will have the opportunity to get a lecture note that provides a summary of the material presented as well as the comments made by the lecturer. There has been much research done in the domain of asynchronous e-learning to improve the engagement of the students within the e-learning platforms. Most of them have not been able to archive the real-time student-teacher interactions in asynchronous platforms as done in Create-my-course. As shown, using a long time to get the feedback on questions due to the nature of online learning, leading to cause a low percentage of students who watch the lecture to the end. For this reason, it is practical to use chatbot based on artificial intelligent to get answers to the questions quicker. According to research conducted by Ranoliya [12], introduces a chatbot for university-related FAQs that uses Latent Semantic Analysis (LSA) and Artificial Intelligence Markup Language (AIML) [13] to accurately and quickly respond to any question based on the dataset of FAQs. In another research, the authors proposed a bot that converses intelligently for Massive Online Open Courses to text-based responses to the learner's queries. In another research, the authors propose a chatbot using NLP and ML for academic purposes which gives the responses in text mode that can be made used by various educational institutions.

II. Methodology: The video segmentation module run as an independent module from others and past paper suggestions lecture note, transcribing and finally chat bot runs as a single module. This mechanism helps students to give their full attention while learning the content and enabling to grab important points from the lecture. For this, a comprehensive study was carried out to build this application.

A. Video Segmentation: The video segmentation pipeline is consisting of 3 modules that will be running as a background process and those are as follows) Audio cleansing model) Topic prediction model. c) Video segmentation model. First, the uploaded lecture video will be used to extract the audio component from it to send to the cleaning process. In here background noises from the audio will be cleaned by using the noise reduction library in python. With the help of the python noise reduction algorithm called “noise reducer”, time-domain signals like voice, bioacoustics, and physiological signals may now be made quieter. It uses a technique known as "spectral gating," a type of Noise Gate. It computes a signal's spectrogram and then calculates a noise threshold for each frequency band of the signal and noise. To suppress noise, below the frequency-varying threshold, a mask is computed using that threshold. By using this mask background noise will be cleaned from the audio clip. computed using that threshold. By using this mask background noise will be cleaned from the audio clip. Secondly, a cleaned audio file will be sent to generate a transcript text file which will be used to discover topics. After transcribing process is finished, the transcript text is used to identify the topics and keywords. To represent the extracted topics in a vector space two different representations are adopted which is a similar approach as [14] two distinct techniques. a) Latent Dirichlet Allocation (LDA): For training the LDA model [15], the generated transcript was preprocessed using the python genism library and converted the cleaned text into two fractions of vectors as bigrams and term-document frequency. The trained model then was stunned properly to increase the accuracy. Predicted topics were then pushed into a vector for further analysis. b) NLTK rake library: It is used to extract

keywords from the transcript and as mentioned above method it will be stored in another vector and be used in the video segmentation process

Figure 2.1: Comparison of Original and HUE mask frame

Once processed, the topic will be extracted by using a text detection mechanism called an Optical Recognition Model (OCR). In order to make the function more efficient similarity of each frame is calculated using Oriented FAST and Rotated BRIEF (ORB) in open cv [16]. Rather extracting each frame, similarity of 2 frames is checked and the frame which is not similar is sent for processing to make the segmentation process faster shown in Table 1.

	Similarity	Result
Frame1 and Frame 2	Sim <= 0.90	Pass
Frame1 and Frame 2	Sim > 0.90	Ignore

Table 1: Similarity Table

Extracted words will be analyzed with the topic vector and keyword vector parallelly. Identified segment boundary then will be used for the segmentation of the video. To minimize user, wait period, all of the aforementioned processes will be executed in the background process, and the user will be alerted by an automatic email when they are completed.

B. Generate transcription and lecture note Before starting the process of generating transcription have to upload lecture videos by the lecturer. a) Extract audio and get transcription. Using moviepy library extract the audio from the uploaded lecture video. [17] Separate into several audio chunk files to minimize the noisy data. Get the transcription text files by using speech_recognition library which were separated audio files. b) Grammar correction. Above extracted transcription is Grammarly incorrect. So that “Create_MY_course” use the vennify/t5-base-grammar-correction pre-trained model which is provide by happy transformers. c) Summarization. Text summarizing is a strategy for producing an accurate, succinct summary of lengthy texts while concentrating on the sections that provide relevant information and keeping the overall meaning intact. Long texts are intended to be condensed into manageable chunks; this can be difficult and expensive to accomplish manually. Automatic text summarization accomplishes this. After preprocessing the data and create the table of words frequency. Using NLTK tokenizer, tokenize the textual data in to sentence wise. Get weighted frequencies to the tokenize sentences and calculate the threshold values. Finally based on the threshold values summarize the sentences d) Translate to Sinhala and Tamil. Translations of the Tamil and Sinhala languages will be generated for "Create-My-Course." The Google Translation Library was applied for that in this. After the transcription is created, it will be translated into Tamil and Sinhala. The transcription can then be downloaded by the user based on their preferences.

C. Generate transcription and lecture note: Fill in the blanks (FBQ), multiple choice questions (MCQ), and WH type questions are the four main question types that our system generates. Below is a description of how the questions mentioned above are created. [18]

a) MCQ: "Create-My-Course" makes the assumption that words taken out of the text, which was produced via the "Generate transcription and lecture notes automatically" component, will produce excellent responses to MCQ questions. The pre-trained algorithms "T5ForConitionalGenaration" and "T5Tokenizer" are used by "Create-My-

Course" to create Multiple Choice Questions and their associated answers. Complete Text-to-text-transfer transformer (T5) model to generate multiple choice questions concurrently by just providing the sentence. Extracted nouns, verbs and pronouns b using define functions. "Create-My-Course" use the wordnet to extract distractors. After the training of the model, E-pod uses discriminators to turn sentences into questions that have the proper and incorrect answers. b) Fill in the blanks: Same as Fill in the blank's questions generating use that words taken out of the text, which was produced via the "Generate transcription and lecture notes automatically" component. Separate into words and generate TF_IDF score for each and every word in the input text. Get average TF_IDF score and then Get sentences for given depth. c) WH questions: Also, when making short questions (WH questions), utilize transcription that has already been prepared. Use the Qgen library under questgen to generate questions. Short answer questions will be generated by calling the predict_shortq function. d) Boolean questions: Use the transcription that was generated as input here as well. For question generation, the BoolQGen library will be utilized. The "predict boolq" method is used to create Boolean questions, while the "predict answer" method returns the correct answers.

D. Answer Evaluation: This component's objective is to evaluate student answers in the format of essays and short answers applying NLP techniques. The evaluation method is based on contrasting the students' answers with the lecturer's sample answers and evaluating the accuracy of the students' answers based on how similar both resemble each other. The concept of text similarity is utilized in this comparison.

E. Past Paper suggestion: "Create-My-Course" comes with past paper question suggestion technique give support to the students. Before the past paper suggestion process begins, the past paper must be uploaded by the lecturer, and by using the uploaded past paper pdf files, the text file will be transferred from the uploaded pdf files. Question.csv dataset is used and, in order to suggest the most suitable past paper questions which are related to video part. Implemented the three models. Used Word2vec, Spacy library and SentenceTransformer models and get the outputs. As well as. In here Extract best indices using cosine similarity.

F. AI Chat bot: Create-My-course comes with AI based chat bot that assists the students to evaluate their questions based on the lecture contents and which is capable to works as an open domain chat bot that can answer the day-to-day questions involved in human conversations using NLP Methods. In here chat bot responses depends on the two different models based on the inputs where Create-My-course enables the user to input different types of user inputs and those are as follows, a) Text similarity model b) Text identification model Create-My-course consists of a question bank of MCQ and WH questions. The Question evaluation related to the academic content is based on the comparing the student question with the question bank based on their similarities and provide the best suitable answer as an output. This comparison is done using the concept of Text similarity which is a combination of semantic similarity and lexical similarity. Prior to the comparison, based on the user input as an image, text is extracts from the image using an OCR module which is consists of sub-processes as text localization, character segmentation, character recognition and post preprocessing to identify as accurately as possible. As the Create-My-course bot can assist in open domain, bot understands the requirement of the user, based on the intents and the entities of the user input and response with accurate answer based on the similarity using the LSTM model [19]. Therefore, under both close domain and open domain responses of bot depends on the two features of term weighing and the semantic vector similarity taken into consideration

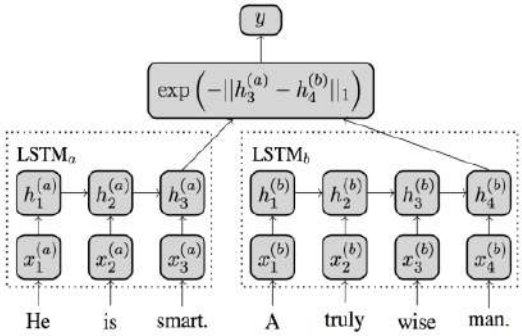

Figure 2.2: MaLSTM Model

Create-My-course bot accepts user inputs in two different structures as text and image. For the user inputs as images, OCR model [20] is uses to extract the text in the image using the tesseract python library which consists of Convolutional Neural Network to recognize an image containing characters. The noise present in the input image is removed using the gaussian filter to increase the probability of accurate text recognition as it is a vital aspect when generating an accurate output. Normalization is then performed to generate characters with identical size, alignment, and slant. Afterwards The scanned document is then turned into a grayscale image to complete the binarization process that transforms grayscale photos into binary ones to easy ease the analysis process. After the image completes its preprocessing, filtered image feed into LSTM model which is a sub form of RNN model to recognize sequence of characters accurately from the vital data retrieved from the raw. Finally, categorization was accomplished by identifying each character and assigning it to the appropriate character class, so turning the text to a machine-readable format using the support vector machine.

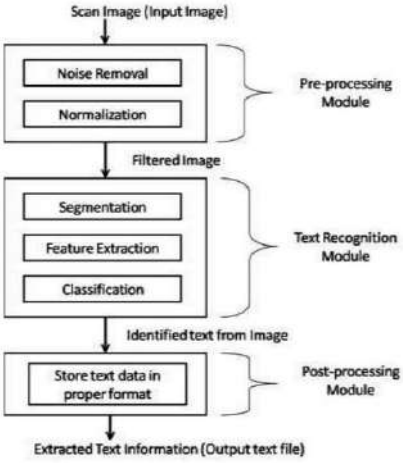

Figure 2.2: Text recognition architecture

III. RESULTS AND DISCUSSIONS:

A. Cleaning audio and video segmentation: To demonstrate the results and techniques presented in this study for segmenting lecture videos based on topics utilizing our suggested system, which demonstrates a better and more successful strategy than previous ways. The noise reduction method employs the parameter tuning approach to minimize ambient noise without harming the speaker's voice. There are various video segmentation algorithms available around the globe, and one of the more successful approaches is to identify the segmentation borders using speaker audio. However, because of the significant computer resources required for the algorithm to function, this approach was not used in this study. In this example, an OCR approach with minimal resource utilization was chosen for video segmentation. Although the OCR methodology for video segmentation can get the job done, the aforementioned method takes longer to finish the operation. To solve this problem, two

techniques were taken. They are also lowering the video's frame rate and employing the ORB similarity technique in OpenCV. These two strategies contributed to a 70% reduction in time. The outcomes of these proposed remedies are depicted in the figures below,


```
[{
    "topic":"Introduction",
    "start_time":0.0,
    "end_time":12.8
},
{
    "topic":"First Lesson Revision",
    "start_time":12.8,
    "end_time":254.5
},
{
    "topic":"Classification Problems",
    "start_time":254.5,
    "end_time":447.0
},
{
    "topic":"Linear Separability",
    "start_time":447.0,
    "end_time":941.3
},
```


Figure 3.1: Video segments boundaries

Figure 3.2: Video segments according to topics

B. Generate transcript and lecture note: The functionality of automatic transcript generation and summary generation is provided by "Create-My-Course" using moviepy and Tf-Idf methods, which have been trained to an accuracy of 93%. Additionally, grammar correction is also done through this part. The produced transcription was then translated into Tamil and Sinhala. Figure 3.3 depicts the English transcription, whereas Figure 3.4 depicts the translated Tamil transcription. Figure 3.5 illustrates the translated Sinhala transcription. The system enables instructors to check automatically generated summaries for accuracy

Figure 3.3: English Transcription

Figure 3.4: Tamil Transcription

Figure 3.5: Sinhala Transcription

C. Question generation and past paper suggestion:

a) Question generation: MCQ, FBQ, True-False, and short answer questions are all included in the "Create-My-Course" question bank. A constructed models were trained to obtain an accuracy between 90-92% for FBQ and MCQ keyword identification. The questions will be generated based on the transcription that was produced. A generated MCQ with distractions is shown in Figure. 3.5, whereas generated Boolean questions are shown in Figure. 3.6. FBQ-style questions that were developed are shown in Figure 3.7; short answer questions were generated in Figure 3.8. Using "Create-My-Course," lecturers can edit and revise previously prepared quizzes before publishing them.

```
What is Sachin Ramesh Tendulkar's career?
cricketer
['Brett Lee', 'Footballer', 'International Cricket']
Where is Sachin Ramesh Tendulkar from?
india
['Bangladesh', 'Indonesia', 'China']
What is the best cricketer?
batsmen
['Bowlers', 'Wickets', 'Mccullum']
```

Figure 3.5: MCQ Questions

```
['Is there such a thing as feminism?',
 "Is feminism the same as men's rights?",
 'Is it true that men and women should have equal rights?']
```

Figure 3.6: Boolean Questions

	sentences	avg_tfidf_per_word	answer	score
6	Machine _____ (ML) is a field of inquiry de...	0.063703	learning	0.024095
7	Machine _____ (ML) is a field of inquiry de...	0.063039	learning	0.023844
10	Machine learning (ML) is a field of inquiry de...	0.063703	machine	0.019276
11	Machine learning (ML) is a field of inquiry de...	0.063039	machine	0.019075
3	Machine _____ (ML) is a field of inquiry de...	0.047690	learning	0.018038
0	Machine _____ (ML) is a field of inquiry de...	0.045388	learning	0.017167
4	Machine _____ (ML) is a field of inquiry de...	0.044498	learning	0.016831
15	Machine learning (ML) is a field of inquiry de...	0.063703	data	0.014457
8	Machine learning (ML) is a field of inquiry de...	0.047690	machine	0.014431
1	Machine _____ (ML) is a field of inquiry de...	0.037823	learning	0.014306
5	Machine _____ (ML) is a field of inquiry de...	0.035599	learning	0.013465
9	Machine learning (ML) is a field of inquiry de...	0.044498	machine	0.013465
2	Machine _____ (ML) is a field of inquiry de...	0.027811	learning	0.010519

Figure 3.7: Fill in the blanks Questions

```
{'questions': [{'Answer': 'definition',
                'Question': 'What is feminism by?',
                'context': 'I was printed 6 months ago and i have realised the '
                           "fighting for women's rights has to often become "
                           'synonymous with man heating if there is one thing '
                           'i know it is that this has to stop for the record '
                           'feminism by definition is the belief that men and '
                           'women should have equal rights and opportunities '
                           'is the theory of the classical economic and social '
                           'policy of the success.',
                'id': 1}],
```

Figure 3.8: Short Answer Question

D. Past Paper Suggestion: The strategy of suggesting past paper questions is used to assist students with their tasks and to encourage them to complete the past papers. A built-in model was trained to achieve a 93.67% average accuracy for past paper question suggestion. The questions will be suggested based on the generated questions that was produced. It was completed after comparing generated questions with past exam questions. The output of suggested past paper questions is displayed in Figure 3.9

```
query_sentence = "how to train a neural network"
```

```
                                                Questions
18174  What are the typical entry-level job titles an...
23930  Is age a factor for hiring entry level compute...
3155   What are some notable companies that employ in...
```

Figure 3.9: Suggested past paper questions

E. AI CHAT BOT: To train the MaLSTM model used by the "Create-My-course" AI assistant, the Shard dataset was used. Using an NVIDIA GPU, we trained on 80% of the data and validated with 20%. After 500 epochs, the model attained an accuracy of 0.7985, a val loss of 0.1400, and a val accuracy of 0. 7458.Table 2 shows some sample sentence pairings from the Shard test data, and the model is able to estimate the level of semantic similarity between them with an accuracy of 80.95%. Table 2 indicates MaLSTM predictions (ps) and genuine similarity (ts) (1–5).

Sentence 1	Sentence 2	ts	ps
How about the weather?	How is the weather today	4.5	4.7
What is step by step guide	is the step-by-step guide to invest in share market	2.4	2.6

Table 2: Results of the text localization algorithms

For text recognition of the image inputs in the create-my-course ai assistant, a TDM_IACS algorithm [21] and Text hunter algorithms were performed to localize the text embedded in the image. In almost all cases, precision was higher than recall and the highest performance were TDM_IACS algorithm that has a recall of 62.57 with 85.46 Precision. To fine tune the word recognition task, normalized edit distance was used. In Table 3, it presents the findings that obtained from both participating algorithms. It gives the findings in the form of the total edit distance, which is derived by adding together the normalized edit distance for each ground truth word and the recognition result that corresponds to it.

Method	TED	Recognition (%)
OCR	187.52	54.88
KAISE AIPR	258.92	30.74

Table 3: Results of the word recognition algorithms

IV. FUTURE WORK AND CONCLUSION: This research was done with the primary goal of fixing the issues inherent to the asynchronous e-learning format, most notably the lack of instructor-student communication. By delivering course materials, tracking students' attention in real time, and giving them exercises to complete when their focus wanders, the study was able to successfully boost student engagement in asynchronous e-learning. "Create-my-course" uses a wide range of activities to accomplish the aforementioned goals, including the segmentation of lengthy recorded materials, the generation of automatically generated summaries that are available in English, Sinhala, and Tamil, the generation of multiple question types, Boolean question generation, and short answer generation, as well as an AI assistant that is available around the clock to answer students' questions without any delay. All of these activities collectively help to improve students' engagement while they are learning, which is In the course of this study, a number of OCR models, CNN models, LSTM models, and language models were deployed, and each of these models was put through its paces by being evaluated using data that had not been seen before. The solution that is suggested in this study is suitable for usage in asynchronous e-learning environments, such as those seen in secondary and postsecondary education settings. The accuracy of the models that were utilized in this research will continue to be enhanced as part of future work in order to achieve higher performance. In addition, the system will be improved by the addition of new features, which will result in a higher level of engagement among students and a more user-friendly presentation of content to students.

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Influence of One Hundred Percent Transition Policy Implementation on Provision of Adequate Instructional Materials in Public Boarding Secondary Schools in Upper Eastern Region Kenya

William M'birichi
Educational Management, Chuka University, Kenya, East Africa

Dr. Benjamin Mugambi Kanga
Educational Management, Chuka University, Kenya, East Africa

Dr. Eric Mwenda Gitari
Educational Management, Chuka University, Kenya, East Africa

Dr. Peter Kimanthi Mbaka
Educational Management, Chuka University, Kenya, East Africa

Abstract: The inception of the world Sustainable Development Goal Number four, Target number one raised world's bar of education from Universal Primary Education to include equitable and quality secondary education. This led to high demand for secondary school education. Countries world over started initiatives to admit large number of primary school leavers to secondary school. The Ministry of Education in Kenya developed 100 per cent transition policy to guide the transition of all pupils from primary schools to secondary schools. Despite the efforts of the government to implement 100 per cent transition policy, education stakeholders have expressed concerns that the implementation of the policy may affect the quality of education in secondary schools. The purpose of the study was to establish the influence of implementation of 100 per cent transition policy on the quality of education in public boarding secondary schools in Upper Region of Kenya. The objectives of the study were to; determine the influence of 100 per cent transition policy implementation on the management of quality teaching and learning activities, establish the influence of 100 per cent transition policy implementation on provision of adequate instructional materials, determine the influence of 100 per cent transition policy implementation on the adequacy of school adequacy of infrastructure and examine the influence of 100 per cent policy implementation on management of students' social and emotional wellbeing in public boarding secondary schools in upper eastern region, Kenya. The study utilized the descriptive survey research design. The study population of was 3065, comprising of 20 QASOs,145 principals and 2900 teachers. The sample size was 363 subjects consisting of 18 principals, 341 teachers and four QASOs. The 145 public boarding secondary schools were randomly selected. The 18 principals in the selected schools were purposively selected, four QASOs were randomly selected; while 380

teachers were randomly selected to participate in the study. Questionnaires were used to collect data from principals and teachers while an interview schedule was used the collect data from the QASOs. The reliability coefficients of 0.92 and 0. 87 were obtained for principals and teachers' questionnaires respectively. Data analysis was done using Statistical Package for Social Sciences (SPSS) Version 26. Hypotheses were tested using linear regression statistics at α=0.05 level of significant. Based on the findings, all null hypotheses were rejected in favour of and alternative hypotheses. The researcher recommends that; Ministry of Education should provide more funds to buy adequate instructional materials and providing adequate school infrastructure, Directorate of Quality Assurance and Standards conduct regular quality assurance assessments in secondary schools, Teachers Service Commission recruit and deploy adequate teachers, Boards of management to compliment government in providing instructional materials and improving school infrastructure. Principals should ensure that teachers make good use of instructional materials and school infrastructure while classroom teachers should incorporate counseling and guidance as part of teaching. The findings and recommendations have provided crucial information to the Ministry of Education TSC, BOM, Parents and principals on the status of 100 per cent implementation policy and on how to improve the quality of education.
Keywords: Provision of Instructional Materials, 100% Transition Policy, Transition from Primary to Secondary, Public Boarding Secondary Schools, Quality of Education

1.1 Introduction: Internationally, Studies carried out on teaching and learning resources have revealed that these are not always adequate in secondary schools in Brazil, because of increased enrollment of students (Scheffer, & Dal Poz, 2015). This was as a result of improved transition of learners from primary to secondary schools. The shortage was caused by a mismatch between the number of learners completing primary school, and the number of learners joining secondary schools. The shortages of teaching resources have been a concern for educators. Instructional facilities affected the quality of education in all levels of education in Brazil (Bruns et al., 2011). Furthermore, reports on public universities have noted that the quality and quantity of teaching and learning material was significant for quality teaching and research (Scheffer & Dal Poz, 2015). The quality of education was institutional, academic or subject based. Managers of educational institutions such as deans, heads of departments and principals regarded quality output as an asset and a promotional mechanism. Thus, the increased enrollment led to another challenge of decreased quality of learning in Brazil. Instructional materials are essential tools in learning every subject in the school curriculum. They allow the students to interact with words, symbols and ideas in ways that develop their abilities in reading, listening, solving, viewing, thinking, speaking, writing, using media and technology (Bukoye, 2018). According to Dahar and Faize (2011), instructional materials are print and non-print items that are designed to impact information to students in the educational process. Instructional materials include resources such as prints, textbooks, magazines, newspapers, slides, pictures, workbooks, electronic media, among others. In India, the global initiatives for universal education and rapid population growth have led to increase in enrollment in the primary and secondary schools, which has subsequently led to a strain in the available instructional resources (Jain & Prasad, 2018). Overcrowded or large classes are now common places in most educational institutions, especially those in like India. There are many challenges that teachers face when teaching large class size. Among the most common challenges, Jain & Prasad (2018) cited inadequate instructional materials to be the factor that hindered learning in the schools, the most. This was as associated with inadequate funds that lead to shortage of instructional materials, inadequate school buildings, inadequate educational facilities, poorly qualified and poorly remunerated teachers and inadequate learning conditions leading to poor results. The Kenyan situation is not different either, as the cumulative results of 100 per cent transition has led to increased enrollment. This current study aimed to establish how it had affected the adequacy of instructional materials in schools. A study carried out in United Kingdom by Blatchford et al. (2013) that established that students in smaller classes (average of 19 students per class) exhibited more

time being utilized for instructional purposes and less time being utilized for non-instructional purposes, such as talking to one's peers about non-academic topics, than students in larger classes (average of 32 students per class). Another research by Olaniyan and Ojo (2008) found out that lack of textbooks and training manuals was one of the challenges hindering successful implementation of early technology in Nigerian secondary schools. This is in agreement with Chiriswa (2002) who found out that effective teaching and learning depends on the availability of suitable, adequate resources such as books, laboratories, library materials and other visual and audio teaching aids which enhance good performance in the national examination. The current study has interest in government funding of secondary and the fact that it may not be adequate to purchase adequate instructional materials. Instructional materials play an important role in the teaching-learning process. The availability of resources such as textbook, chalkboard, study kits, teaching guides, audio-visual aids, overhead projectors, laboratory equipment among others are the important instructional materials. Instructional resources can be denoted as those materials that promote and aid the learner in understanding of the concepts or ideas presented to the learner in a learning place. Teachers employ these materials to assist student's learning and increase the interest in learning as well. These resources are used to enhance the learner's total participation in class activities aimed at effective learning (Klier, 2017). Instructional materials are very critical ingredients in learning and the intended programme cannot be achieved easily without them. The instructional materials sources information and chances for learners to utilize what they have learnt. Without resources materials and facilitates, the teacher may not be in a position to settle the set course objective. A study conducted at a medium sized polytechnic in the United Kingdom echoes these findings (Clark & Del Bono, 2016). The researchers established that students in large first-year courses experienced feelings of anonymity and a reluctance to speak up or ask questions, thus affecting the teaching and learning process, as they were not able to give feedback to their lecturers. In the study, the teachers were to comment on the teacher-students' interaction and how it was affected by the implementation of 100 per cent transition policy. A study by Olaniyan and Ojo (2008) found out that lack of textbooks and training manuals was one of the challenges hindering successful implementation of early technology in Nigerian secondary schools. This is in agreement with Chiriswa (2002) who found out that effective teaching and learning depends on the availability of suitable, adequate resources such as books, laboratories, library materials and other visual and audio teaching aids which enhance good performance in the national examination. The current study has interest in government funding of secondary and the fact that it may not be adequate to purchase adequate instructional materials. Mughal, (2020) carried out a study in Pakistan on determinants of enrollment in secondary education a case study of district Lahore. Primary data was collected from 3320 households where 2520 households belonged to the urban areas and 800 households belonged to the rural areas. The factors contributing positively and significantly to net enrollment of children at primary school level were found to be family size, dwelling ownership, expenses on education, literacy ratio and dependency ratio. It was also established that access to school is not a very significant factor towards inhibiting school attendance. It was concluded that despite the positive effect of some of the characteristics of individuals and households on gross as well as net enrollment, there are various strong qualitative factors across the socioeconomic spectrum that had differential impacts on school enrollment. Mughal, (2020) noted that teacher's qualification and adequate facilities were determinants of assessing academic performance of students in secondary schools. Hence the availability of facilities in schools affects the academic performance of students. Many studies done on factors influencing poor performance of students in KCSE examinations have indicated increased enrollment leading to inadequate teaching learning resources as one of the key variables. Aregbeshola and Khan, (2018) noted that central to the education process are educational resources which play an important role in the achievement of education objectives and goals by enhancing effective teaching and learning. According to Aregbeshola and Khan, (2018) physical resources include laboratories, libraries, classrooms and a host of other physical infrastructure while material resources include

textbooks, charts, and maps and should be proportional to the enrollment in schools. They further commenting on educational resources says that, they are important because the goal of any school depends on adequate supply and utilization of physical and material resources among others as they enhance proper teaching and learning. Karimi (2011) noted that effective school libraries provide additional reading opportunities for students which in turn improve reading skills, comprehension and writing clarity of expression which in turn support students‟ performance in all other curriculum subjects. He further noted that size of school library should be able to accommodate the size of the school. In Africa, Muyoyeta at al. (2017) carried out a study of the school-based factors affecting grade 12 learners' academic performance in Namibia Senior Secondary Certificate Ordinary Level Biology in the Khomas Educational Region. The study used mixed methods research, with a randomly selected sample of 480 respondents, who included 450 students, 15 Biology teachers and 15 science heads of department. Data were collected using questionnaires and interview schedules. The findings of the study indicated that, the teaching and learning of Biology in the Khomas Educational Region of Namibia was affected by lack of relevant teaching and learning resources, lack of laboratory equipment, a lengthy Biology syllabus, overcrowded classrooms, and lack of commitment by the school administration. Muyoyeta et al. (2017) recommended that the school administrators in the region should seek support from government, donor agencies and philanthropic organizations to equip the schools with the relevant teaching and learning resources. This was done in secondary schools under the normal transition policy. Under the 100 per cent transition policy, schools are required to handle more students than in the normal transition policy, thus placing a constrain on the resources. How effective teaching and learning process is maintained, despite the strain in the teaching resources, is the focus of this study. According to a study conducted in Tanzania by Akomolafe et al. (2016) to assess the influence of educational instructional materials such as chalk and books on the performance of ordinary level secondary schools in Morogoro and Dar Es Salaam, revealed that there is a significant relationship between instructional materials and academic performance. The study employed a cross-sectional study design with the respondents including head teachers of secondary schools in Morogoro and Dar Es Salaam. The interactions of students and the instructional materials enhance leaning by students. With the implementation of 100 per cent transition policy and the subsequent increase in enrolment in secondary schools, a major concern for schools is whether they are able to provide adequate instructional materials for all students. A Kenyan study by Othoo et al. (2019), investigated on the influence of teaching and learning resources on academic performance of public secondary schools of Kuria East and Kuria West sub counties. The study used a descriptive survey research design, and was carried out using a sample comprising 36 principals and 138 teachers. The results of the study showed that adequacy of teaching and learning resources had significant effect on students' academic achievement. The researchers found that the continued increase in enrolment in secondary schools which is not followed by increase in teaching and learning resources put pressure on the limited teaching and learning resources thus affecting the academic performance of the schools. The situation has been worsened by the 100 per cent transition policy that has made the schools to accommodate more students than they can handle. This increased enrollment without additional resources may compromise the quality of learning. A study by Wambua (2011) on the impact of school infrastructure on access and provision of quality secondary education in Kisumu Municipality established that the number and quality of school teaching and learning resources like classrooms, library, and laboratory influence the provision of quality secondary education in Kisumu municipality. Adequate tuition facilities facilitated the provision of quality education. She recommended that the ministry needed to level the ground for all learners particularly those who lack the facility. The study was done in urban centre but the current study was done in the rural and remote area and not only looked at school infrastructure but also other school resources like teachers and finances. The current study took cognizance of this finding and assessed the levels of adequacy and utilization of selected teaching and learning resources and their influence on quality of education. According to Agosiobe (2015)

the exploitation of teaching resources is important because they motivate learners to learn as they offer stimulus variations and help in sustaining learners' attention throughout the lesson. Learning aids confirms information, sometimes a concept may be complex and words alone cannot offer a clear elaboration. Institutional materials enhance lively class discussion after watching a film in a class and listening to a radio. They also challenge independent thinking most especially when used individually in an assignment or as a class activity. These teaching and learning materials generate more interest and creates a situation where the learner would fully engage in classroom and outdoor activities. Maximum utilization and employment of these instructional resources provides the learner with a practical experience which can aid selection of learning concepts more easily. Various terms such as instructional materials, audio visuals aids, teaching resources and learning aids are said to have a similar meaning. The comprehensive study by Alabere et al. (2017) importance of teaching aids on effective teaching of English language as a second language among the secondary school students in Nigeria. The study employed a descriptive survey design where data was analyzed using descriptive and inferential statistics. The study revealed that where students were taught without instructional materials the performance in examinations were very poor. The inferential statistical analysis revealed that there was no significant difference in performance by students and the use of instructional material. These findings are important is the current study they differ with expected results. This discrepancy is of concern for there could be other factor that led the good performance other than the instructional materials from what is expected. A study by Akinsanya (2010) to determine the influence of differential distribution and utilization of human resources on students' performance in state-owned and federal schools in Ogun State, Nigeria found that physical facilities like laboratories and libraries were inadequate which influenced students' performance. Oni (1995) found that availability and quality of materials facilitate smooth operation of any school and thereby enhancing effective teaching/learning activity and thus higher educational attainment by students. A study by Laurillard (2013) study on effective teaching, and learning technologies in Botswana found that lack of relevant teaching materials caused dismal students' academic performance. The study further found that students' academic achievement is mainly caused by lack of relevant textbooks and other print materials such as publications and handbooks. The government of Botswana is committed to ensure that the Ministry of Education and Skill Development receives lion's share, both recurrent and development budget (Matambo, 2013). Luke et al., 2014) posits that despite all the efforts by the government on education, the students' academic performance has been declining lately from 2010. According to Lyons (2012) students' performance is influenced by the quality and quantity of teaching materials. Lyons (2012), found out that institutions that have adequate teaching/learning resources such as textbooks, charts, maps, audiovisual and electronic instructional materials such as radio, tape recorder, television and video tape recorder stand a better chance of performing well in examination than poorly equipped ones. Therefore, poor academic performance could be attributed to lack of enough teaching materials and equipment, thus the need to carry out this study to establish the validity of this statement. Agosiobo (2007), noted that the use of teaching resources is important because they motivate learners to learn. They offer stimulus variation and assist in sustaining learners' attention throughout the lesson. Learning resources clarify information, and offer a clear explanation to complex concepts. In addition, instructional materials stimulate lively class discussion. For example, after watching a film in a class or listening to radio. In addition, they also challenge independent thinking, especially when used individually in an assignment or as a class activity. A study in Kenya by Chepkonga, (2017), observed that in some instances textbooks provide the only source of information for students as well as the course of studies for the subjects. He noted schools that sought to improve their quality of education then, their instructional materials change to facilitates actual teaching. While the selection of a textbook has been judged to be of vital importance to academic achievement, it is sad to say that relevant books are not available for teaching and learning activities. Improvements seem to be linked to the instructional practices implemented in the smaller classrooms rather than

the classroom size itself (Faubert, 2012). The smaller schools may have a positive impact on disadvantaged students since teacher have personalized attention compare to large schools where a teacher interact with many students in different classes. A study by Omaiyo (2013) in Migori, Kenya on the effects of instructional resources on children's performance, a study that adopted a descriptive survey design. The researcher targeted a total number of 225 children were selected from a possible population of 750. Using the questionnaire and observation schedule, the study established that there was minimal use of teaching and learning resources in these schools. The study concluded that use of teaching and learning resources affected the academic performance of the preschoolers and as such recommended that more teaching and learning resources should be applied in order to uplift the academic performance of learners in these schools. Though the study considered learners in semi-rural areas, the current study applied the same research design and considered provision of adequate instructional materials as a dependent variable in this study. A study by Orodho et al. (2013) revealed that challenges in availability and adequacy of learning resources had a negative effect on teacher effectiveness in the use of teaching methods as well as focus on individual learner. (World Bank 2014) posited that teaching and learning space determine access to secondary education and also transition from primary to secondary. According to Fillardo et al., ((2017), Poor teaching and learning space like classrooms, laboratories and libraries is a barrier to deliveries of curriculum. Spacious learning space provide teachers with adequate room to monitor individual student activity. At the same time spacious laboratories are safe as student are able to move freely during practical lessons. This current study is interested in learning resources. In Kenya, Oyugi and Nyagah (2010) assessed the influence of Teaching and Learning Resources on the Implementation of Inclusive Education in Pre-School Centers in Nyamira North Sub-County. The study sampled 134 pre- school teachers and 270 preschool parents through stratified random sampling and 12 Education Officers sampled by census sampling. The study found that teaching/learning resources comprise of community involvement, regular teachers for both special needs students and the average students which influence student performance. A study by Yara and Otieno (2010) on teaching and learning resources and academic performance shows that, stationaries and teaching aids influence students' performance. His findings are in agreement with findings of UNESCO (2008) report that teaching and learning materials such as text books, teaching aids (chalk, chalk board) and stationaries can influence students' academic performance. Nyambura (2012) studied the Challenges faced by school administrators in implementation of subsidized secondary education in Mombasa sub county, Kenya. The purpose of carrying out this study was to examine the challenges faced by schools' administrators in the implementation of subsidized education in public secondary schools in Mombasa sub-County. Descriptive research design was used in this study. Purposive sampling was also used to draw up a sample size of seven out of the 13 public schools in the district. Questionnaires were used as instruments for collecting data from the principals and head of departments. The data collected was processed and analyzed using SPSS package and output in Microsoft Word 2010. The findings revealed that the implementation of subsidized secondary education in Mombasa District faced many challenges which are attributed to high enrollment, high drop-out rate, low transition rate and inadequate funds among others and less resource for learning. This was a study on Challenges faced by school administrators in implementation of subsidized secondary education in Mombasa sub -county. The study used descriptive research design. This study focused on increased enrollment and its implications on quality education in public primary schools and also used sequential explanatory design that was employed within mixed methods approach. A study by Njenga (2019) found out that the secondary schools in the Nyandrua Central Sub County-Kenya, inadequate teaching and learning which made the implementation of the school curriculum difficult. The study noted that there were inadequate sanitary facilities. The shortage led to wastage of teaching time as the students spent more time queuing to access limited toilets and urinals. From the study it was concluded that the selected physical facilities have a positive influence on the implementation of 100% transition policy. The current study intends to

establish the influence of the implementation policy on the quality of education in the public boarding schools in upper eastern region of Kenya.

1.2 Objective of the Study: The objective of the study was to establish the influence of 100 per cent transition policy implementation on provision of adequate instructional materials in public boarding secondary schools in Upper Eastern Region, Kenya.

1.3 Research Design: The study utilized the descriptive survey and a correlational research design. According to Groves et al. (2004), is a systematic method for gathering information from a sample of entities for the purposes of constructing quantitative descriptors of the attributes of the larger population of which the entities are members. According to Kothari (2004) the major purpose of descriptive research is to describe the state of affairs as it exists at present. Therefore, this design was suitable in the current study since the 100 per cent transition policy implementation has been ongoing since 2018 hence the status can be assessed. The descriptive survey was also considered the most appropriate research design for this study because in the study, the researcher collected information on the state of affairs in the schools, without manipulating any variables. By using a descriptive survey design, the researcher managed to study a representative sample and generalized the findings to the entire target population. Mugenda and Mugenda (2009) notes that descriptive survey is useful in this study because the study was used to collect data from an identified groups of respondents with the objective of determining whether 100 per cent transition policy has an influence on quality education in public boarding secondary schools. A correlational research design was used since the researcher sought to establish the relationship between the dependent and the independent variables.

2.1 Results and Discussion: The objective of the study was to establish the influence of 100 per cent transition policy implementation on provision of adequate instructional materials in public boarding secondary schools in upper eastern region, Kenya. The teachers were requested to rate their levels of agreement or disagreement on a 5= point Likert scale, where; (5) =Strongly Agree (4) =Agree, (3) = Neutral, (2) = Disagree and (1) = Strongly Disagree. The findings obtained are presented on the Table 1.

Table 1: Teachers Responses on Provision of Adequate Instructional Materials

Statement	SA % N	A % N	N % N	D % N	SD % N
Implementation of 100% transition policy has led to inadequate relevant textbooks for all students.	71.5 (243)	3.2 (11)	7.4 (2)5)	13.5 (46)	4.4 (15)
Implementation of 100% transition policy has led to inadequate revision materials.	27.6 (94)	60.0 (204)	1.2) (4)	9.4 (32)	1.8 (6)
Implementation of 100% transition policy has led to inadequate electronic media equipment.	2.4 (8)	69.9 (237)	7.1 (24)	7.9 (27)	3.5 (12)
mentation of 100% transition policy has led to inadequate fire and safety equipment in the school.	61.8 (210)	11.5 (39)	4.4 (15)))	18.8 (64)	3.5 (12)
Implementation of 100% transition policy has led to dequate laboratory chemicals and science equipment.	69.7 (237)	7.1 (24)	6.2 (21)	13.5 (46)	3.5 (15)
Implementation of 100% transition policy has led to inadequate Chalk boards and wall maps.	8.5 (29)	7.4 (25)	6.8 (23)	16.5 (56)	60.9 (207)
Implementation of 100% transition policy has led to	22.9	65.3	2.4	5.0	4.4

inadequate reference materials.	(78)	(222)	(8)	(17)	(15)
Implementation of 100% transition policy has led to inadequate science models and geography globes.	16.2 (55)	61.5 (209)	8.8 (30)	9.1 (31)	4.4 (15)

Findings in Table 1 show that 254(74.7%) of the teacher agreed that implementation of 100% transition policy led to inadequacy of relevant textbooks. A further 298(87.6%) concurred that 100% transition policy has led to inadequate revision materials. In addition,245(72.3%) of the teachers noted that100% transition policy led to inadequate electronic media equipment. Another 249(73.3%) of the respondents opined that 100% transition policy led to inadequate fire and safety equipment in the school. Another 261(76.8%) teachers agreed 100% transition policy led to inadequate laboratory chemicals and science equipment. In contrast a large number 263(77.4%) disagreed 100% transition policy led to inadequacy of Chalk boards and wall maps. Majority 300(88.2%) of the teachers reported that 100% transition policy led to inadequacy reference materials in public boarding schools in upper eastern region of Kenya. The principals were requested to rate their levels of agreement or disagreement on a 5- point Likert scale, where; (5) =Strongly Agree (4) =Agree, (3) = Neutral, (2) = Disagree and (1) = Strongly Disagree. The findings obtained are presented on the Table 2.

Table 2: Principals Responses on Provision of Adequate Instructional Materials

Statement	SA % N	A % N	N % N	D % N	SD % N
mentation of 100% transition policy has made it difficult for the school to provide students with adequacy of relevant text books.	61.1 (11)	22.2 (4)	5.6 (1)	11.1 (2)	0 (0)
mentation of 100% transition policy has made it difficult for the school to provide adequate reference materials	5.6 (1)	77.8 (14)	5.6 (1)	0 (0)	11.1 (2)
ementation of 100% transition policy has led to inadequate laboratory chemicals and science equipment.	16.7 (3)	66.7 (12)	5.6 (1)	5.6 (1)	5.6 (1)
mentation of 100% transition policy has made it difficult for the school to provide adequate chalk board and wall maps.	0 (0)	5.6 (1)	5.6 (1)	5.6 (1)	83.3 (15)
mentation of 100% transition policy has made it difficult for the school to provide adequate revision materials to students.	11.1 (2)	55.5 (10)	0 (0)	16.7 (3)	16.7 (3)

Findings in Table 2 indicate that 15 (83.3%) of the principals agreed implementation of 100% transition policy made it difficult for the school to provide students with adequate relevant text books. Further,15(83.4%) of the principals indicated that implementation of 100% transition policy made it difficult for the school to provide adequate reference materials. Another 15(83.4%) of the principals indicated that implementation of 100% transition policy led to inadequacy of laboratory chemicals and science equipment. In addition, 16(89.4%) of the principals disagreed that implementation of 100% transition policy made it difficult for the school to provide adequate chalk board and wall maps. Finally, 12(66.6%) of the principals pointed out that implementation of 100% transition policy made it difficult for the school to provide adequate revision materials to students. In regard to adequacy of relevant text books, the study established that 74.7% and 83.3% of the teachers and principals respectively concurred that implementation of 100% transition policy led to inadequacy of relevant textbooks. These findings agreed with Dahar and Faize (2011) who found out that large enrolments due to increased transition led inadequacy of instructional materials such as relevant textbooks. Further, the study established that 72.3% of the teachers agreed that100%

transition policy led to inadequate electronic media equipment These findings agree with Lowe (2017) which found out that various learning materials which include; print electronic, models and multi-media are required for effective learning. Further other instructional materials such as magazines, newspapers, chart map and posters enhance effective learning. Indeed, teaching and learning which involve watching models make learning practical and real. In situation where of learning materials are inadequate there is little learning. This is because the teachers use resources to enhance learner participation in class activities resulting in effective learning. From the findings, found out that 74.7% and 83.3 % of the principals respectively agreed that implementation of 100% transition policy led to inadequacy of relevant textbooks. These findings concur with Victory (2020) who established that there was inadequacy of instructional materials due to increased enrolment in Nigeria. In addition, Lyons (2012) concurred adequate teaching/learning resources such as textbooks critical in effective teaching. The relevant text books are important in that they are a credible source of information that the learners. It is with adequate text books that teachers are able to give students assignments. Inadequacy of text books lead to students sharing text books which is not effective in giving students individualized assignments. In regard to availability of instructional materials, established 87.6% and 87.6% of teachers and principals respectively found out that implementation of 100% transition policy led to inadequacy of revision materials in the secondary schools. These findings concur with Agosiobo (2007) who found out that instructional materials are useful in stimulating lively class discussions. This is illustrated by student who watch a video demonstrating an abstract concept in class. As a result, the concept becomes clear to learners and provokes more discussion on the concept. The study established that implementation of 100% transition policy led to inadequate reference materials, as was indicated by 87.6 %and 83.6% of the teachers and principals respectively who agreed. An earlier study by Lyons (2012) who found out that institutions with adequate teaching/learning resources such as textbooks, charts, maps, audiovisual and electronic instructional materials such as radio, tape recorder, television and video tape recorder stand a better chance of performing well in examination than poorly equipped ones. Therefore, poor academic performance could be attributed to lack of enough teaching materials and equipment. In regard to the adequacy of chalkboards and wall maps, 77.4% and 88.9 % of teachers and principals respectively noted that implementation of the policy did not have significant effect. These findings differ with findings of UNESCO (2008) which reported that teaching and learning materials such as chalk and chalk board and can influence students' academic performance. This contradiction in the findings is due to change in technology between 2008 and 2022 when former and the current studies were conducted. The study established that implementation of 100% transition policy led to inadequate science models for teaching as indicated by 98.2% of the teachers. These findings concur with Othoo et al. (2019) who indicated that adequacy of teaching and learning resources had significant effect on students' academic achievement. The researcher found out that the continued increase in enrolment in secondary schools which is not followed by increase in teaching and learning resources put pressure on the limited teaching and learning resources thus affecting the academic performance of the schools.

2.2 Summary of the Research Findings: From the findings of the study, it is established that increase in number of students due to implementation of 100% transition policy led to inadequate reference material for all students within the recommended ratio with students sharing reference material. The study further established that increase the study established that increase in number of students due to implementation of 100% transition policy led to inadequate reference material for all students within the recommended ratio with students sharing reference material. The study further established that increase in number of students due to implementation of 100% transition policy led to inadequate revision materials in the secondary schools, chalk boards, wall maps and electronic media. In regard to testing the null hypothesis which stated that implementation of 100% transition policy has no statistically significant influence on provision of instructional materials in public boarding secondary schools in upper Eastern region, Kenya.

2.3 Conclusion: The study established that the implementation of 100% transition policy significantly influenced the provision of adequate instructional materials. Most of the schools lacked adequate teaching resources to cater for the increased enrollment, leading to students sharing reference materials. This negatively affected the quality of learning. This is because the growth of the school enrolment was not matched with corresponding increase and expansion of instructional materials.

2.4 Recommendation: The government should consider investing more in the provision of instructional materials and distribution to all public secondary schools. The availability of adequate instructional materials will facilitate teaching and learning leading to the provision of quality education.

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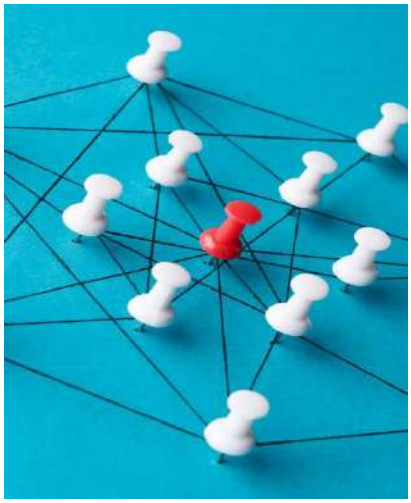
Role of Leadership in Performance of an Organization

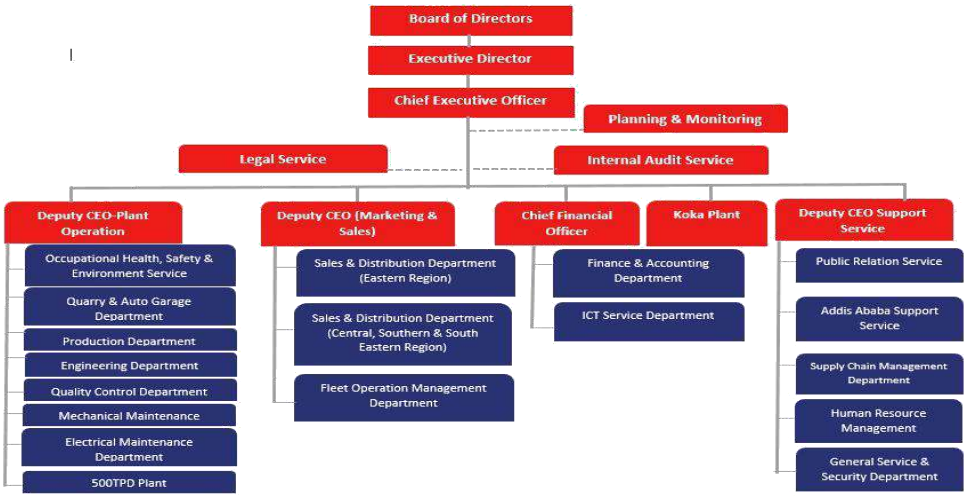
Waidi Goriola Sanni
CEO, Waidigoriola Enterprises, Lawanson

Abstract: The main objective of this research is to investigate if a specific type of CEO's leadership is related to the performance of the employees, using a case study related to CEO's Dangote group Organization, as is the case of Aliko Dangote. The study also described both leadership qualities and performance in service sector of good leadership qualities.
Keywords: Organizational Performance relationship, Rewards for performances, Culture and Leadership Qualities.

Leadership Concept of Dangote group Organization: The leadership Concept of Dangote group Organization is the process of influencing the behavior of other to work willingly and enthusiastically for achieving predetermined goals.

Structure of Dangote group Organization





Leadership Behaviors: Be open and honest. The best leaders are open and honest with their team members. Lead by example. Effective delegating is a necessary skill for managers to have and leading by example is also key. Have confidence. Encourage feedback. Provide evidence. Be self-analytical. Promote successes. Embrace change.

Types Of Leadership Behaviors: I) Task-focused: Task behavior is when your actions are centered on the task - the job that needs to be done. ii)Relationship-focused behaviors: Relationship behavior is when your actions are more centered towards relationships with your people.

Leadership Styles: **Delegative Leadership**: a delegative leadership style focuses on delegating initiative to team members. This can be a successful strategy if team members are competent, take responsibility and prefer engaging in individual work and it also no as laissez-faire leadership.

Organizational Performance: Organizational performance involves comparing a company's actual output with what it intended its output to be, i.e., its goals and objectives.

Research Methodology: This chapter examines the various sources of data used in the research, the designed population study, sample size, techniques used, instruments and method of data analysis. Objectives and Research Hypothesis: The main goal of this research is to investigate if a specific type of CEO's leadership is related to the performance of the employees, using a case study related to CEO's Dangote group Organization. Therefore, this research intends to answer the following research questions: 1. How does leadership style positively and significantly affect job performance? 2. How does leadership practice positively and significantly related to job performance? Considering the previous literature review, the present work was conducted to investigate how leadership practices affect organization job performance using qualitative data (questionnaires) and in-depth interviews. Sample, Sources and Data Collection Methods. It was not possible to administer questionnaires to all staff rather a combination of stratified random sampling with multi -stage cluster sampled was used. Stratified random sampling was used to ensure that the selection cut across all categories of staff. Multi-stage sampling was also used to ensure that the research cut across the zones and some of the institute branches within the state. The data collection method used in this study involved two sources: the primary and secondary sources. The primary sources include the information obtained from the administration and a survey by questionnaire. The secondary source was based on information from relevant literature, textbooks, journals and academy of management reviews on leadership style on employee performance.

Data Analysis Method: The data collected through the questionnaire presented in tabular form. The data gathered from the questionnaire were analyzed and presented in frequency and percentage tables. The data were also interpreted, and the chi square statistical test was used to test the stated hypotheses.

Conclusion And Recommendations: The important purpose of the studies is to seek out the effect of management conduct on a firm's enterprise growth. The case employer in the studies became Dangote Group. An interview with the CEO of Dangote Group became carried out. There are over 30,000 employs performing at Dangote Group in Nigeria, 29 professionals the survey questionnaire way to covid 19. The studies became accomplished to test how the firm grows toward achievement and achieves objectives with the help of management behaviors and differing sorts of management behaviors have been discussed. Thanks For Listen and Any Question?

Scaffolding Students' Ability to Manage Workplace Ethical Dilemmas using Interactive Case Study Videos

Chien Ching Lee
Centre for Communication Skills, Singapore Institute of Technology, Singapore

Emily YeeFun Woo

Singapore Institute of Technology, Singapore

LeeKeng Ng
Singapore Institute of Technology, Singapore

YinKai Ng
Singapore Institute of Technology, Singapore

Abstract: Situations in the workplace are getting more complex and dynamic. However, undergraduates are not taught in an intentional manner how to make decisions critically and ethically as they navigate these situations. At the Singapore Institute of Technology (SIT), students have to undergo industry attachment that is usually eight months in duration. The coordinating programme found that without much prior work experience, the students sometimes faced challenges in managing ethical dilemmas. Thus, a team of academic staff came together to address this issue. The aim of this research was to investigate the effect of using critical thinking and ethical frameworks and interactive workplace case study videos on students' ability to make ethical choices. This paper aims to share the considerations and challenges faced in operationalizing the 'teaching' of ethical decision-making. The team crafted the storylines and formulated the dialogues for the video clips that featured case studies of real-life scenarios. These were then developed into interactive videos by the university's media producers. The videos stopped at specific junctures to allow students to make their decisions and receive feedback on the decisions made. To implement the chosen pedagogy, the students were taught Kallet's (2014) and Sherfield and Moody's (2013) frameworks on ethical decision-making. These academic concepts were incorporated to provide the scaffolding for in-class discussions after students had attempted the scenarios in the interactive videos. In addition, measurement tools to assess students' learning were designed. The students' responses in the questionnaires were largely positive. The challenges faced in operationalizing the 'teaching' of ethical decision-making were related to the lack of students' anonymity in the questionnaires as well as the large group size that might have inhibited the sharing of more frank opinions.
Keywords: Ethical dilemmas, Decision-making, Pedagogical design, Interactive videos, Workplace case studies

1. Introduction:

1.1 Integrated Work Study Programme: As a university of applied learning, the Singapore Institute of Technology (SIT) is committed to nurturing industry-ready talent and innovate with the industry. With the aim for graduates to "hit the ground running" when they step into the workforce, it is desirable and essential to incorporate practical hands-on sessions in suitable subjects so that students benefit from the authentic learning experience. The Integrated Work Study Programme (IWSP) module in particular, integrates institution-based learning with structured on-the-job training. It involves working very closely with industry partners and aims to provide the undergraduates with a better understanding and expectation of what the industry is all about; to expose the students to the kind of problems that they will face when they go to work. Towards the end of the eight-month work attachment programme, there is an assessment component where the work supervisors rate the students' overall performance in terms of six skills: Learning and Work Integration, Professionalism, Communication, Problem Solving and Decision Making, Teamwork, and Adaptability.

1.2 Problems that Students Faced: However, in the last few years of mentoring and coaching the Hospitality Business students during their IWSP, the Module Lead and a majority of the Academic Supervisors observed that students often shared that they encountered challenges that included the making of right and ethical decisions when problems surfaced during their course of work. Through communications with the work supervisors and

students, it becomes obvious that there is a need to highlight the importance of good ethical practice and also equip students with critical thinking skills so that the students have the ability to think for themselves in future.

1.3 Objective of this Paper: This paper has two related objectives. The first aim is to share how the teaching of ethical decision-making was operationalized using interactive videos, and theoretical frameworks on ethical decision-making. The second aim is to highlight the lessons learnt in the implementation.

2. Literature Review:

2.1 The Teaching of Ethical Decision-making: Ethics are philosophical moral principles that guide a person's behaviour. In general, most people will agree that it is not acceptable to steal from others and would also likely agree that hurting someone else is unacceptable. Though there are many ethical opinions that most people share, ethics differ from person to person. This is because ethics are shaped by each person's moral code, and that moral code is shaped by cultural upbringing and surroundings, and the values individuals hold. While ethics do play a huge role when it comes to decision-making, it is seldom taught in an intentional manner in a university setting or classroom as there is no absolute right or wrong regarding the decision made (Jeffs, 2019). However, there are still reasons for persevering in the teaching of ethical decision-making. Research conducted by Carlson and Burke (1998) found that students who employed analytical and conceptual skills to solve ethical dilemmas were more at ease with uncertainty. They developed an appreciation for limitations and perceived the usefulness of managing ethics as it affects organisational culture. MacDonald (2014) further argued that teaching students' ethics would introduce them to faulty rationalisation and encouraged them to debate about different viewpoints, thus helping them to develop critical thinking skills and prepare for success post-graduation. Universities have employed different ways to teach ethics. Three examples will be outlined in this section. The first example is that of Capsim (2011) who introduced Ethics Plug-in, a business simulation software that consists of vignettes that deal with everyday business ethical dilemmas requiring students to make a decision. The students also see how their decisions affect the company for the remainder of the simulation. For the second example, the Edmond J. Safra Center for Ethics Harvard (2017) employed game design principles to teach ethics in a situated context so that students can bridge theory and real situations and exercise their reasoning and decision-making skills in a fun way. Last but not least, there is Ethics Unwrapped, a series of case studies developed by the McCombs School of Business of the University of Texas (2022) has a huge catalogue of work ethical dilemmas using discussion questions, videos and a bibliography for further reading. Some of these strategies, however, are expensive and which might not be available to institutions or faculty interested in incorporating the teaching of ethics in their curriculum. Furthermore, curriculum time is tight, and students are often not willing to spend time going through materials regarding ethics independently, especially when it is not an ethics module or related to a graded assignment. For this project, the adopted strategy was to teach ethics using interactive videos which are inexpensive to produce, using a blended learning mode, within a tight time frame of three hours. Two frameworks which are culture-neutral were utilised to guide the discussion on ethical dilemmas in the classroom.

2.2 Theoretical Frameworks in Ethical Decision-making: There are many frameworks for ethical decision-making appropriate for use in small scale interpersonal scenarios. Among many, Kotalik et al.'s (2014) framework aligned with the mission, vision and values of an institution. The Markula Center for Applied Ethics (2022) and Brown University (2022) have a framework that revolve around identifying the ethical issues, getting the facts, evaluating the options, choosing an option and testing it, implementing the decision, and eventually reflecting on the outcome. Kallet's (2014) critical thinking process is like the latter two frameworks above but more condensed as it consists of only three steps: Clarity, Conclusion and Decision. Clarity refers to spending the time to develop a clear definition of a problem. Conclusion refers to making a decision based on multiple solutions explored while Decision refers to taking action on the decision made. Kallet's process was used for this specific study as it was easier for both students and faculty to remember, and the processes were typical of problem-solving and decision-making processes. In

addition, Sherfield and Moody's (2013) framework was chosen to add another layer of guidance for the students. The framework consists of six components or questions that students should ask themselves when faced with choices, namely: • Law (Is it legal?);• Fairness (Is it fair?);• Conscience (Can I live with my decisions?);• Time (Is this decision in my long-term best interest?);• Pride (Could I tell somebody about it?); and •Publicity (How would I feel if this showed up on the front page of the newspaper?). This framework forces students to think of the long-term implications of their actions to their reputations instead of just opting for a quick fix to challenges.

3. Pedagogical Design: **3.1 Pedagogical Tools**: To educate students about ethical decision-making, videos of actual case studies were used as teaching tools in a facilitated lesson setting. The pedagogical method was influenced by reasons that are outlined below.

3.1.1 Videos: The videos are in the format of interactive animated storylines instead of live-acting scenes because it was found that learning activities that contain elements of fun help reduce learning anxiety to produce results (Temelkova, 2018). According to neuroscience, fun experiences increase the levels of dopamine, endorphins, and oxygen – all of which promote learning in students across ages (Willis, 2006).

3.1.2 Case Studies: It was purported that teaching with case studies can let students be actively engaged to recall and apply theoretical principles through the examples. This in turn enables them to develop their analytical skills, judgment and decision-making in complex, ambiguous situations (Boston University Center for Teaching and Learning, n.d.; Nohria, 2021).

3.2 Production of Case Study Videos: For this project, five videos were created in collaboration with the media production team from the university's Centre for Learning Environment and Assessment Development (CoLEAD). The entire process took nearly a year from May 2021 till April 2022. The duration was considerable as it comprised sequential steps including scenario finalisation, planning of junctures for ethical decision-making, dialogue scripting, animation rendering, voice-over recording, etc. Eventually, the five videos were produced with a key commonality: there are junctures that require students to choose between decision options.

3.3 Lesson Implementation: The implementation of the video case studies took place on 19 August 2022. It was a back-to-campus day that occurred during students' eight-month-long industry attachment. The lesson consisted of inter-related stages that had a 'before-and-after' experimental element.

3.3.1 Stage One: Students read case study #1 and then completed a short questionnaire consisting of six questions. Using the case scenario as the context, the four multiple-choice questions asked students to determine if the manager / staff is right or wrong, etc. The remaining two open-ended question sought to gather students' opinions on how the case study can help them at their workplaces, as well as the factors that have influenced their multiple-choice responses. After that, students were introduced to the topic of critical thinking. The lesson content pivoted on the theoretical frameworks by Sherfield and Moody (2013) as well as Kallet (2014) that were mentioned in the earlier section of literature review.

3.3.2 Stage Two: In smaller break-up rooms, students proceeded to view video clips for case studies #2 and #3. After each clip, students participated in facilitated discussions using the theoretical frameworks that were shared. At the end of the session, students read case study #1 again and completed the same questionnaire once more. The repeated use of the same questionnaire was to find out if there were changes in students' decisions after the topic of ethical decision-making was explicated and discussed.

4. Outcomes:

4.1 Results from Questionnaires: Based on the results of the two questionnaires, it was found that nearly 90% or more of students gave the ethically 'correct' answers. Among those who chose the 'non-correct' answers in stage one, they eventually selected the 'correct' response in stage two after the facilitated discussions. Students' written comments for the open-ended question were dominantly positive. Below are a few quoted examples of what they indicated to have learnt through the lesson: "I know better now to think critically before making any decisions and

the impact my decision might have on the organisation I am working at." "Something that is trivial might cost great consequence." "Not to take advantage of the company." During the facilitated session, their verbal responses were observed to be coherent and logical. The outcome did appear much more positive than what the academic team had anticipated and there might be possible reasons for that phenomenon. The first possibility was due to social desirability effect that influenced students to choose and verbalise responses that were expected of them, especially if the questionnaires required them to indicate their names as part of attendance-taking. The second possibility might be that most of the students truly possessed more awareness about ethical decision-making.

4.2 Limitations: As mentioned above, one limitation might be the indication of names that could have inhibited students' natural responses. The next limitation was the small number of facilitators for the considerable group size of about 30 students in each break-out room. In such large groups, one corollary is that the more vocal students would dominate the conversation and drown out the quieter ones. Smaller group size would be more conducive to learning as it ensures that more students can contribute and voice their thoughts.

5. Conclusion: Equipping students with ethical frameworks and critical thinking skills empower them to be able to think for themselves and make the right choice in the future, especially during difficult situations. However, ethics is seldom taught in an intentional manner in a classroom setting, despite the major role that it plays in personal and professional settings. Therefore, this study (of adopting videos of actual case-studies alongside ethical frameworks in a facilitated lesson setting) aimed to help students think critically on their own and examine the consequences of their decisions. It is hoped that over time, this would eventually help students to become more confident and ethical when tasked to make difficult or challenging choices.

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Interrelation Between Green Finance and Maqasid Syariah: A Study of The Development of Green Sukuk in Indonesia

Wiwin Windiana
Education, Indonesia International Islamic University, Depok, Indonesia

Abstract: Indonesia is committed to controlling climate change through green Sukuk. Green Sukuk is a State Sharia Securities (SBSN) that specifically finance the green sector, researchers formulate problems, (1) Why green economy, green finance, and green Sukuk are often associated with Maqasid Sharia and (2) How is the development of green Sukuk? This research uses a qualitative approach to literature research. The data of this study was obtained from library materials, then presented narratively-descriptively. Research Results (1) There is an interrelationship between green finance and sharia Maqasid; and (2) The development of green Sukuk in Indonesia has increased from year to year. Researchers recommend that the green economy model must continue to be formulated, especially in the financing sector to ensure resource efficiency.

Keyword: Interrelation, Green Economy, Green Finance, Green Sukuk, Maqasid Syariah

A. INTRODUCTION: The current economic development can be said to be dynamic; various efforts have also been made, including making policies and developing new economic concepts to be in line with the times; the goal is for the economy to continue to be in line with its welfare purpose (Gayatri, 2017). Welfare can be defined as the well-being of all living things, including humans, nature, and even inanimate objects. Although the relationship between the economy, man, and nature is not always positive, (Loiseau et al., 2016). Why is this the case? because policies frequently made for welfare are not balanced, such as excessive human exploitation of natural resources whose purpose is to be equal, as if to be a paradox (Cui et al., 2020). Nature is predicted to eventually produce disasters such as floods caused by deforestation or a lack of absorption areas, as well as global warming and erratic weather, among other things. This phenomenon is caused by man's actions, who no longer consider the resulting lead or its relationship to the sustainability of natural ecosystems. Nature is a gift from God that we must protect, in Islam it can be referred to Allah's word in surah Al-A'raf verse 85 which states... وَلَا تُفْسِدُوْا فِى الْاَرْضِ... Meaning: "... And you shall not make mischief on the face of the earth..." (Q.S Al-A'raf verse 85 in Departemen Agama RI, 2019). The interpretation of this verse, unequivocally delivered by the Islamic scholar Prof. Dr. Quraish Shihab, M.A in his popular interpretation of Al-Misbah, he argued that human beings should maintain harmonious relations in economic and financial interactions, then maintain the system and benefit of the general public. (Shihab, 2005). According to the author, this interpretation emphasizes the importance of humans maintaining natural ecosystems because nature provides many benefits to mankind, and if we maintain those ecosystems, a good economic cycle will be created, so humans must reciprocate to nature. The world's economic leaders are currently working to provide the appropriate economic model for constructing a clean, environmentally friendly, and long-term economic ecosystem, also known as the green economy. (Loiseau et al., 2016). This concept has been passed down through various world economic meeting events by academics, practitioners, and even government officials. The

financing sector (finance), also known as green finance, is one of the strategic sectors of the green economy concept. In short, green finance is the provision of financing to only the green sector or those that are environmentally friendly, such as financing trains, hydroelectric power plants, and so on (Wang & Zhi, 2016). In Indonesia, various parties ranging from the private sector to the government are supporting the development of green finance. For example, several private banks have agreed not to lend to mining companies or the dirty energy sector. The government then issued State Sharia Securities (SBSN) or Sukuk specifically to finance the green sector, known as green sukuk, through the ministry of finance. (Liu & Lai, 2021), meaning that the state makes special policies to build green energy and slowly abandons the dirty energy sector (Iskandar & Aqbar, 2019). If we look at the philosophical foundations of the green economy, green finance, and green Sukuk, they have connections and interrelation with Maqasid sharia. Which has the same breath in Islam, it is because the concept of Maqasid sharia emphasizes the benefits of the environment. (Kurniawan & Hudafi, 2021). Maqasid Sharia is known to have five (5) concepts, among which religion, soul, reason, ancestry, and property are preserved. In summary, if we refer to popular opinion about Maqasid sharia, we will find Imam Asy-Syatibi and Islamic scholars referring to him as the "Father of Maqasid Sharia." He argued that the essence of Maqasid Sharia is whatever policy is made for the benefit of the people on earth. (Suhada & Setyawan, 2016). God has entrusted man with the role of caliph or leader, so man has an obligation to protect. The interrelationship will be discussed further in the results and discussion section. The author formulates the problems he presents based on this background: first, how is the development of green Sukuk; and second, why the green economy, green finance, and green Sukuk are frequently associated with Maqasid Sharia? The author is particularly interested in reviewing this issue under the title **"Interrelation Between Green Finance and Maqasid Syariah: A Study of the Development of Green Sukuk in Indonesia".**

B. METHOD: The literature research in this paper is conducted in a qualitative way. This research data was gathered from library materials such as books, published papers, and internet websites related to the problem under consideration. The collected data is then presented in a narrative-descriptive format. Data reduction, data presentation, and conclusion drawing are the data analysis methods used in this study.

C. RESULT AND DISCUSSION: Nowadays, the discussion of economics is becoming increasingly diverse, with the emergence of new terms in response to the times, even though some of the purposes of these terms have been discussed by previous economic scholars. The author will explain the concepts of green economy, green finance, green Sukuk, and how they relate to sharia Maqasid and the development of green Sukuk in Indonesia in this section.

Green Economy, Green Finance,* dan *Green Sukuk In general, discussing the green economy can begin with the United Nations (UN) Conference on the Environment and Development, which was held in Rio de Janeiro in 1992, as previously mentioned. The concept of "green economy" was created 20 years later at the Rio+20 conference in 2012. In some ways, the United Nations Agency for Environmental Programs (UNEP) interpreting green economy as an economic concept that can improve welfare and social justice. There are three areas to concentrate on: low carbon, social inclusion, and resource efficiency (Loiseau et al., 2016). The green economy aims to help reduce greenhouse gas emissions while also seeing the benefits of the green economy concept, specifically as a means of a development model that considers environmental and ecosystem justice. The green economy has a broader scope than the Low-Carbon Economy (LCE) and the Low-Fossil-Fuel Economy (LFFE), both of which aim to reduce greenhouse gas (GHG) emission activities. Because the green economy is based on the basic concept of ecological economics, which is a science that studies the impact of economic activity on environmental ecosystems such as climate change. (Koehrsen, 2021). Along the way, the green economy provides an understanding that was initially focused on only greening regulations but has now shifted to environmentally friendly economic development. However, the concept of a green economy also considers opening jobs, also known as green jobs, namely green sector jobs. According to the opinions of the world's economists, Prof. Emil Salim, M.A., Ph.D., reminded the audience that a developed country does not rely solely on economic factors; there must also be an increase and

strengthening of human and ecological resource development (Willya et al., 2020). That is, the human understanding of employment must be consistent with the understanding of the work's impact, particularly the impact on the environment. Nowadays, it is undeniable that job opportunities include financiers or investors in the concept of a green economy known as green investment, namely investment in the green sector. Thus, the green economy refers to the economy and the environment in general, from downstream to upstream, or so to speak, considering all sectors before developing policies. The focus is not only on stopping but looking at how economic actors produce goods, trade products, and consume environmentally friendly products (Karina, 2019). The financing sector or green finance is a concern in the concept of the green economy. Green finance is a trend that combines the financial and business sectors with environmentally conscious behaviour. Many actors, including individual consumers, producers, investors, and financial lenders, have a place in this concept. Green finance can be implemented in various ways depending on the perpetrator and the country's financial policymakers, with the ultimate goal of preserving the planet. Green finance, in contrast to traditional financial activities, places a greater emphasis on the benefits of the ecological environment and pays more attention to the environmental protection industry. (Azizah & Hariyanto, 2021). Banks play the majority of the role in green finance because they are financial institutions that are an important part of economic development, and banks are responsible for climate commitments. Among them is the commitment not to finance dirty energy; the problem among academics is that banks have a profit goal, so the commitment to stop financing dirty energy appears difficult; however, some banking institutions have committed not to finance dirty energy and instead switch to clean or environmentally friendly energy. Not only banks but also state institutions such as the ministry of finance play an important role in implementing policies that promote sustainable development. In Indonesia, the government has made various efforts to fulfil this commitment, including green Sukuk or State Sharia Securities (SBSN), also known as green Sukuk. The Indonesian government launched the world's first green Sukuk concept in 2018 to provide green financing (Rohmah et al., 2020), Following that were several countries such as the UAE, Malaysia, and others. The proceeds from the Republic of Indonesia's issuance of green Sukuk in 2018 totaled 1.25 billion USD or Rp. 16.75 trillion, will be distributed solely to environmentally friendly projects following the Republic of Indonesia's Green Framework. The Green Bonds and Sukuk Initiative seeks to assist Indonesia in meeting its commitment to reduce greenhouse gas emissions. Dwi Irianti, Director of Sharia Finance at the Ministry of Finance of the Republic of Indonesia, stated that green Sukuk is an innovative sharia-based financial instrument that will help Indonesia meet its commitment to combat climate change. (Kementerian Keuangan Republik Indonesia, 2019). The concept of green Sukuk, or sharia-based innovative financial instruments, is interesting to study above with the concept of sharia Maqasid, which is thought about policies that provide for the benefit of the people, which will be explained further.

Interrelasi Antara *Green Finance* dan *Maqasid Syariah* The well-known sources of law in Islam as the main reference are the Al-Quran and Hadith; if it is not found in the two (2) main sources, the next step is Ijma and Qiyas. (Lubis et al., 2021). Islam defined green finance as a financing model that prioritizes benefits. Why is this so? Because when it comes to benefits, Islam has a concept known as Maqasid sharia. Before delving deeper into the relationship between green finance and Maqasid sharia, the researcher will provide a theoretical overview of Maqasid sharia. Maqasid sharia is derived from two words: Maqasid and sharia. The word Maqasid is the plural form of the word Maqasid, which has several meanings, including towards something and a straight path. (Sarip Saputra, 2020, p. 17). While sharia is a rule, Syara' and Syir'ah, according to Ibn Taimiyah, are related to everything that Allah has ordained, whether it is a matter of Aqidah or charity. (Sarwat, 2019, p. 16). It is possible to define maqasid sharia as sharia's purpose for the benefit of the world and the hereafter. (Al-Shaṭiby, 1996). Is an Islamic sciences concept developed by well-known figures in the field of Islamic studies, particularly sharia Maqasid? Imam Haramain al-Juwainy, Abu Hamid Al-Ghazali, Al-Razy, Saifuddin Al-Amidy, Ibn Hajib, Izzuddin Abdussalam, Al-Qarafi, Ibn Taimiyah, Ibn Qayyim, Ath-Thufi, and Ash-Syatibi will all be found. They believe that Maqasid sharia is for the benefit of the people. (Sarwat,

2019, p. 39). In this case, the researcher will concentrate on discussing Maqasid sharia from the perspective of Asy-Syatibi, because his thoughts on the benefit of giving birth to works that have become reference material for various scholars until now, do not imply that other figures are not references, but Asy-Syatibi has complete, systematic, and simple to understand theories of sharia Maqasid. (Kurniawan & Hudafi, 2021, p. 30). In fact, it has become the primary reference or required book for students continuing their studies in the field of Islamic Studies in Western countries, particularly the Netherlands, Canada, and America. The work that he wrote was later widely read by various scholars, namely Al-Muwafaqat fi Usul al-Ahkam, this work is very popular, so that of the many policies of Muslim scholars (ijtihad) in the field of Islamic law, it appears that this book is never absent from reference material. He is also known as the "Father of Maqasid Syariah." (Toriquddin, 2014). Asy-Syatibi or Imam Syatibi, divides the maqasid of sharia into three (3) parts, among which are dlaruriyat, hijayat, and tahsiniyat (Al-Shaṭiby, 1996, p. 5). Dlaruriyah is a primary benefit or has a primary urgency that must be met by the individual or collective, and if ignored, it will be destructive to the order of society. The dlaruriyah is divided into five sections, popularly known as al-kulliyat al-khamsah, among which are the preservation of religion, soul, reason, nasab, and treasure. Understanding of al-Kulliyat al-Khamsah in Maqasid sharia while having ties or interrelationships with green finance. As for the interrelationships, it is as follows. First and foremost, Hifdz Din (maintaining religion) Maintaining religion has various interpretations among scholars, both classical and contemporary scholars. However, Asy-Syatibi interprets maintaining religion as preserving the originality of religious aims or objectives. Furthermore, Ash-Syatibi emphasized that religion's purpose is to benefit the world and the hereafter (Al-Shaṭiby, 1996). Based on this, green finance, which has a philosophical foundation in the form of financing that reduces environmental damage, has the same goal as religion, namely preserving what God created. As the author mentioned earlier in surah al-A'raf verse 85, Islam teaches us not to harm the environment, and this is the purpose of religion, namely benefit, which means that when religion teaches it, humans personally and collectively maintain religious teachings by practicing them through concrete actions to protect the earth or participating in green financing programs. It is how Hifdz Din and green finance are linked. Second, Hifdz Nafs (maintaining the soul) is the same as the meaning of Hifdz Din, in the sense that Hifdz Nafs also experiences various dynamics of understanding, but in general Hifdz Nafs is defined as the survival of a person's life or soul on earth that has the right to live and protect each other both interpersonally and between groups. Green finance is a philosophically strict concept to ensure the continuity of human civilization on Earth through development financing specifically for the green sector. Third, Hifdz 'Aql (maintaining reason) in Islam, maintaining what God has entrusted to the earth becomes a personal and collective obligation, as the existence of the earth, which is changing day by day, becomes a problem today, as we often heard in the past that the island of Borneo became the people's lungs. This statement is now being called into question in the world's lungs, as the forests of Kalimantan are being eroded by human greed. With the current state of the forest or the earth's ecosystem, which is currently unhealthy as if it contradicts the maqasid of sharia in hifdz 'aql, why is that, because Islam emphasizes the preservation of environmental ecosystems so that humans can live with adequate health insurance? Thus, to support creativity and thinking ability, humans must live in a good environmental ecosystem, rather than with air pollution, floods, landslides, or even forest fires, which are common in Sumatra and Kalimantan (Rahimah, 2021). Green finance represents a new hope for bettering the earth's ecosystem in order to give birth to the next generation of Indonesians who are smart, creative, and healthy in accordance with the constitution, namely educating the nation's life. *Fourth, Hifdz Nashl* (maintaining offspring) if you remember the breath of maqasid sharia, namely realizing goodness and avoiding evil or attracting benefits and rejecting harm, known as dar'u al-mafasid wa jalb al-masalih, meaning hifdz nashl is maintaining healthy offspring. The relationship or interrelationship with the Indonesian government's policy of issuing green finance through the concept of green sukuk or green sukuk is an effort, as previously mentioned, to give birth to a generation of Indonesians who are intelligent and intellectual, according to the constitution. Making it happen requires personal and collective

awareness of the importance of maintaining a healthy environmental ecosystem. Finally, there is Hifdz Mal (maintaining the property). Maintaining a property cannot be interpreted arbitrarily, and interpreting it as accumulating wealth is not following Maqasid sharia. The benefit of the property is the concept of maintaining the property; the economy has long been considered an excellent economic ecosystem, which can be said to consider the benefits of this economic practice. Islamic economics strictly forbids using wealth for activities that are not good or cause harm, such as contributing to the practice of overexploited coal mining, illegal forest logging, etc. Using such assets is not in line with the concept of Hifdz mal in sharia Maqasid, so we are encouraged to use assets for activities that benefit the general public and the long term. In line with the practice of green finance through green Sukuk in Indonesia, which prioritizes financing for the green sector for the sustainability of a good living ecosystem. When one considers the interrelationship of the five models of sharia objectives or al-Kulliyat al-Khamsah to green finance, one can conclude that green finance has a solid philosophical foundation concerning sharia objectives. If you re-read this article, you will find the principle of a green economy, namely low carbon, which has the same goal as the concept of soul and mind preservation in Maqasid sharia. Then there is resource efficiency, strongly linked to wealth preservation and offspring. Finally, it is socially inclusive and philosophically compatible with all Maqasid sharia concepts. As a result, green economy, green finance, and green Sukuk are interconnected with Maqasid sharia, consistent with preserving religion, soul, mind, property, and offspring.

The Development of Green Sukuk in Indonesia Green sukuk is derived from two (2) words: green and sukuk. Before delving into green sukuk, the author will first define Sukuk. Sukuk is derived linguistically or etymologically from the word "sakk" (صك), which means document or certificate. (Fasa, 2016). Meanwhile, the National Sharia Council-Indonesian Ulema Council (DSN-MUI) defines Sukuk as Sharia Securities (sharia securities) in the form of certificates or proof of ownership that cannot be determined in fatwa No: 137/DSN-MUI/IX/2020. the underlying asset's limits (Musya') after receipt of Sukuk funds, closing of orders and beginning use following their designation (DSN-MUI, 2020). The international non-profit organization for the standardization of Islamic finance, AAOIFI (Accounting and Auditing Organization for Islamic Financial Institutions), defines *Sukuk* as certificates of equal value that are non-distributed proof of ownership of an asset benefit rights, and services or ownership of a particular project or investment activity. (Direktorat Pembiayaan Syariah Direktorat Jendral Pengelolaan Utang, 2018). The development of Sukuk in Indonesia has increased significantly from year to year, according to statistics released by the Financial Services Authority (OJK) on the development of corporate Sukuk through public offerings, which began in 2018 with 21.30 trillion rupiah and will reach 37.79 trillion rupiah by June 2022. This achievement means that the growth of outstanding corporate Sukuk (circulating) through public offerings will be positive until semester 1 of 2022. The OJK released data related to the market update of the Indonesian Islamic capital market for the period January to June 2022, which explains that there is an increase in state Sukuk from year to year, as evidenced by the number of outstanding series. There were 71 outstanding state Sukuk series with an outstanding value of Rp. 1,227.89 trillion as of the end of June 2022. When compared to 2018, the outstanding value is Rp. 645.05 trillion, indicating a significant increase over previous years(Otoritas Jasa Keuangan, 2022). According to Islamic law, Sukuk in various countries have fatwas or legal conclusions from scholars (Ijtima') regarding their sharia practices. The National Sharia Council-Indonesian Ulema Council (DSN-MUI) is the fatwa institution in Indonesia that issues Sukuk regulations under sharia principles or provisions (shariah compliance). DSN-MUI has issued several fatwas related to sharia bonds or Sukuk.

Table 1: DSN-MUI Fatwa Regarding Sukuk

Fatwa	Number of Fatwa	Year
stment Implementation Guidelines for Sharia Mutual Funds	No: 20/DSN-MUI/IV/2001	2001
Sharia Bonds	No: 32/DSN-MUI/IX/2002	2002
Mudharabah Sharia Bonds	No: 33/DSN-MUI/IX/2002	2002

Markets and General Guidelines for the Implementation of Sharia Principles in the Capital Market Sector	No: 40/DSN-MUI/X/2003	2003
Sharia Ijarah Bonds	No: 41/DSN-MUI/III/2004	2004
ntation of Sharia Principles in the Mechanism of Trading Equity Securities in the Stock Exchange Regular Market	No: 80/DSN—MUI/III/2011	2011
State Sharia Securities	No: 69/DSN-MUI/VI/2008	2008
Method of Issuing State Sharia Securities	No: 70/DSN-MUI/VI/2008	2008
Sukuk	No: 137/DSN-MUI/IX/2020	2020

The fatwas illustrate that the fatwa institution responds to the development of a green economy in Indonesia, meaning that according to Islamic law, the practice of Sukuk can be said to meet sharia standards, but in practice, it needs to be monitored in order to remain compliant with the fatwas. Assessing the urgency of handling climate change in Indonesia is motivated by the condition of the Indonesian state. Indonesia is a country with the largest archipelago in the world, consisting of more than 17,508 islands, covering an area of about 790 hectares with a total coastline of 95,181 km and a land area of about 200 million hectares. (Direktorat Pembiayaan Syariah et al., 2022), As a result, Indonesia is highly vulnerable to the adverse effects of climate change. Therefore, it motivates Indonesia to take action to combat climate change. Indonesia has committed to reducing carbon emissions by 20% by 2030 and 41% with international technical assistance. Indonesia's commitment to combating climate change can also be seen in the policies that have been issued, including after ratifying the Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. The climate change convention was ratified through law number 6 of 1994 concerning the ratification of the United Nations Framework Convention on Climate Change, followed by hosting the 2007 COP-13 in Bali, which resulted in the Bali Action Plan, which is committed to reducing logging and providing shared solutions. (Kementerian Lingkungan Hidup, 2015). However, this commitment has run into several issues, including a financial gap or gap between funding needs and currently available funding sources to support the Indonesian government's commitment to financing climate change activities. The cost of climate change mitigation and adaptation actions in 2015-2020 is estimated to be 81 billion USD or Rp. 1.188 trillion rupiahs. Furthermore, Sri Mulyani, Minister of Finance of the Republic of Indonesia, stated during a visit to the webinar titled Climate Challenge: Preparing for Indonesia's Green and Sustainable Future that Indonesia requires Rp. Three thousand four hundred sixty-one trillion to combat climate change. This large number has caused the country to reform its financing model so that it does not compete with other needs (Adinda Putri, 2021). As a result of this inequality, the Indonesian government issued efforts through financial instruments in the form of green Sukuk. Green Sukuk is not much different from the definition of Sukuk in general. The difference is that green Sukuk is a financial instrument that focuses on green financing projects that support climate change adaptation and mitigation following the Sustainable Development Goals (SDGs), followed by concepts that follow sharia provisions. Sukuk has become a financial instrument for green financing projects in various countries, including Indonesia, the Kingdom of Saudi Arabia, Turkey, Malaysia, Emirates of Dubai, Oman, Bahrain, Qatar, Pakistan, Hong Kong, United Kingdom, England, South Africa, and the Maldives. The sectors paid for are diverse, ranging from renewable energy, transportation, etc. In Indonesia, several green projects financed by green Sukuk are Renewable Energy, Energy Efficiency, Green Building, Sustainable Transport, Waste and Waste to Energy Management, and Resilience to Climate Change for High Velerable Areas and Sector/Disaster Risk Reduction. The Indonesian government issued several series of green Sukuk from 2018 to 2021, including the global series and the savings series; retail green Sukuk (savings) is one of the types of Retail SBSN issued by the Indonesian state. Retail SBSN is a Government Securities instrument primarily aimed at domestic individual investors. Therefore, the issuance value varies significantly from year to year. For example, in 2018, the government successfully issued 1.25 billion USD or Rp. 16.75 trillion, for the global series. Then, in February 2019, with the same global series, 750 million USD or the equivalent of Rp. 11.25 trillion were issued. Furthermore, in November 2019, it was the first momentum for

Indonesia to issue retail Sukuk with the code ST-006 with a total achievement of Rp. 1.46 trillion. The country then issued global Sukuk worth 750 million USD, or Rp. 11.25 trillion in June 2020. In November 2020, the state issued the second series of retail Sukuk with the code ST-007, worth Rp. 5.4 trillion. The following year, in 2021, the government will issue a global Sukuk worth 750 billion USD, or Rp. 11.25 trillion. The same year, the government issued a retail rate of Rp. 5 trillion in November 2021. (Kementerian Keuangan Republik Indonesia, 2022). The realization and impact of the issuance can be seen in various current developments, including railways in Palembang, South Sumatra, coastal protection in Taluda Beach, Gorontalo, and green buildings in Meda City, North Sumatra, etc (Kementerian Keuangan Republik Indonesia, 2022). Infrastructure or physical building development is one of the economic development models that is part of the national strategic objectives (Andreas, 2021). Financing with the concept of green Sukuk is expected to impact environmental ecosystems with sustainable principles, demonstrating the Indonesian government's commitment. Moreover, according to the explanation of green Sukuk, Islam has a philosophical relationship, namely benefit, with its Maqasid sharia concept.

D. CONCLUSION: Academics are concerned about human-nature relationships from a religious perspective. Green sukuk, which has ties to maqasid sharia, demonstrates how a religious approach can be used to build commitment to environmental ecosystems that are currently changing or are said to be experiencing climate change. The concept of maqasid sharia, which has been thought up by Muslim scholars for thousands of years and then formulates a concept that carries the spirit of preserving religion, soul, lineage, reason, and property, is currently being implemented. The exposure in this paper draws a common thread in the form of an understanding that there is an interrelationship between green finance via green sukuk and maqasid sharia. Simultaneously, according to the data presented by the researchers, the development of green sukuk in Indonesia has increased from year to year. Researchers make several recommendations, including conducting various studies to develop financing models that support a green economy by the government, academics, and the community. Furthermore, the government has increased socialization of the concepts of ESG, SDGs, and green sukuk, so that the general public can think more about how to use their assets (investment) in accordance with sustainable development. If the investment is carried out by promoting sustainable development, investors will not only consider profit (profit orientation), but also long-term glory not only in this world but also in the hereafter, which is known in Islam as falah (falah orientation).

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Effects of Teacher Licensing on Educators' Professionalism: UAE Case in Local Perception

Asma Abdallah
College of Education, United Arab Emirates University, UAE

Mohammed Borhandden Musah
Department of Education Studies, Bahrain Teachers College, University of Bahrain, Sakheer, Bahrain

Abstract: There is neither a universally recognized teacher licensure system, nor consensus on the criteria for assessing how teacher licensing programs affect the quality of teachers. This is the study to assess the licensing program impact on the professional qualities of UAE teachers. The perception survey was piloted with a group of teachers from random UAE schools. A survey method with valid tests and descriptive statistics were used to determine the self- evaluation of teachers in a wide range of competencies related to licensing. Teacher self-evaluates themselves during the test accentuates strong social competence, while professional qualities and professional growth received significantly lower scores. A strong direct correlation was found between test size and participants' experience. There was no correlation between the quality of the assessment and gender or age factors. The results of the study are aimed at helping government and academic policymakers to obtain feedback from teachers on educational reforms. Both the results of the study and the methods of its implementation can be expanded beyond the UAU due to the typological similarity of problems of licensing of teachers in different countries. The originality and novelty of the research is presented by the analysis of the subjective assessment of their results by teachers who passed licensing for the first time in the conditions of UAE, where the licensing system is in the process of formation. The findings of the study demonstrate the points of further development of the newly created teacher licensing system.

1. Introduction:

1.1 A teacher licensing issues: Quality education is driven by a variety of factors, from the content of education and learning environment to the quality of the teaching staff. Almost every study exploring a new teaching method point to a decisive role of a teacher in enhancing or hindering the learning process (Cherkasov et al., 2019a, 2019b; Fryer and Bovee, 2016; Hubackova and Semradova, 2016; Nortvig et al., 2018). The United Arab Emirates (UAE) as a rapidly developing country sees educational development and student success as factors that may be critical in the coming decades. This study's purpose aims to identify, using the UAE example, significant difficulties in the competencies of teachers undergoing licensing in a country where licensing is in the initial process of implementation and requires constant fitting. A teaching license is a teaching credential that an individual needs to legally work as a teacher in a given area (Keller et al., 2016; Tokta my sov et al., 2021). For licensing implementation, a review of best practices and standards is required. Wiseman et al. (2017) argue that there is a need to improve, rather than eliminate or substitute, teacher training. According to those authors, teacher training in the 1980s was left unaddressed despite multiple education reforms, as they focused more on curriculum, homework, length of the school program, student evaluation, etc. Among their findings is that education programs for teachers have remained largely unchanged in structure and content since World War II. Issues such as teacher salaries, assessment issues, etc. were given enough attention, while teacher preparation and licensing needs were overlooked. Brock and Ryan (2016) offered a demand-and-supply model designed for teachers. Teacher licensing is aimed at distinguishing between those who are capable of entering the classroom in the context of abilities measured through the exam and those who are not. Ideally, exams would permit such differentiation by limiting the supply of skills. On the supply side, people decide between teaching and other jobs on the grounds of benefit expectations, salary, and non-financial forms of compensation, once the education and training costs are covered (Nie et al., 2020). As a baseline case, Brock and Ryan considered the situation wherein there is no exam. In this case, the model presumes that people who are potentially skilled teachers cannot be differentiated from those who are potentially incompetent. The net advantage to teaching in any labour market is therefore assumed to be similar for all

participants regardless of their potential ability. Nonetheless, people are presumed to differ in the net advantages, which they receive from other jobs. Raising teacher compensation will therefore result in an increased supply of both incompetent and competent individuals.

1.2 Licensing exams problems: Davies et al. (2018) state that licensure exams, by their very nature, increase the cost of entering a teaching job. While demanding payment of the exam fees and investments in terms of effort and time, licensure exams yet associate with a significant failure rate and build uncertainty about gaining employment in teaching. Furthermore, the cost of failure heightens thanks to a special course needed for teacher licensure. Guryan et al. (2020) claim that since this kind, of course, has a lesser market payoff as compared to other courses a person may take to prepare for the exam and/or grow as a professional, an opportunity cost may be incurred. Candidates who do not pass teacher licensure exams and hence do not get the desired employment to receive less in terms of payment from other jobs than individuals training specifically for those jobs. Hence, the total cost of the license exam includes the difference in salaries (Keller et al., 2016). The direct cost of a licensure exam and the opportunity cost which emerges in the event of failure make the teaching job less appealing than alternatives. Hence, as per the Brock-Ryan model, the higher the cost that licensing imposes on teaching candidates, the smaller the supply of both potentially capable and potentially incapable teachers. Another study by Shuls and Trivitt (2015), using data from the state of Arkansas (USA), compared the effectiveness of teaching students by teachers who received the traditional one through licensed exams after receiving an education degree and teaching experience with an alternative, somewhat simplified way of licensing. According to the results, the difference in the quality of work of teachers licensed by the traditional and alternative methods was insignificant, nevertheless, licensure exams do have some predictive power. Studies in Los Angeles, which practice strict licensure rules based on 3 tests, have shown that teacher licensure test scores are unrelated to teacher success in the classroom, and student performance does not depend on the teacher's degree (Buddin and Zamarro, 2008). Goldhaber et al. (2017) proved that because of measurement errors, licensing exams are not completely reliable and accurate. In theory, an ideal exam is one with a passing score established such that a candidate who hits or outperforms the benchmark is competent and a candidate who reaches below that benchmark is not competent.

1.3 Measuring teaching competence: In the early 17th century, the criteria for entering the teaching job focused mainly on moral character. During that time, there was almost no consistency in teaching and even greater inconsistency from region to region. Goldhaber et al. (2017) claim that when early educational leaders sought to incorporate teacher education into the institutes of liberal arts, there were disagreements between science and art professors and education professors. Those arguments made a division that still results in conflicts in academia today (Beketova et al., 2020). Howell et al. (2016) notes that in the US, this pathway towards the teaching profession faced not much competition until the 1980s when an initiative to create alternative routes for teacher licensing gained momentum. This period even witnessed different movements in response to the critiques of customary teacher preparation programs. By the end of the 1980s, reforms in teacher training moved programs toward a more structured and integrated design, which resulted in quality teaching (Allington et al., 2017). Cowan and Goldhaber (2016) highlighted that effective teaching needs more than direct teaching techniques. An effective teacher should possess a specific set of competencies so that he/she could adopt creative approaches to the teaching practice. There are many competencies to enhance student performance, namely pedagogical, personal and professional. The urgency to start competency testing emerged from the rising concern about schooler accomplishments during the 1970s and 1980s. Deterioration in students' test scores ignited many to put the blame on teachers. For instance, Ahmad et al. (2019) deemed conclusions that responsibility for poor exam scores should be fully pinned on students and their families unjustified, assuming that a certain portion of the blame must be laid on teachers, for they could have been incompetent and weak. Based on the existing literature, the competency framework is underpinned by four dimensions of teaching, each defining the core attributes of the profession which are a key to the attainment

of professional efficacy. The first dimension is concerned with professional competencies and relates to those professional characteristics that help maximize teachers' capability of enhancing student-learning outcomes. What is crucial for the implementation of professional competencies is the possession of strategies, materials, and sources of information that could enable effective knowledge delivery (Bürgener and Barth, 2018; Hakim, 2015; Nousiainen et al., 2018). Requirements for teacher competencies such as relationship management and stress tolerance are well articulated (Adnan, 2018; Bliese et al., 2017; Espasa et al., 2018; Nou- siainen et al., 2018). These competencies are often combined under the name of social competence. It may be difficult to accurately determine the line attributes of a teacher, but they are manifested in the teacher's social interactions, primarily with students. However, researchers distinguish clearly between personal qualities (e.g., strength and pleasant behaviour) and professional competence, which is associated with certain attitudes and creeds that ensure high-quality teaching and learning. These qualities contribute to the respect of students and increase their desire for learning (Blo€meke and Kaiser, 2017; Hakim, 2015; Zanella et al., 2017).

1.4 UAE case specificity: Over 600 teachers across UAE participate only in a pilot project which is paving the way for the region's first teacher licensing system initiative. This is likely to transform the profile of teachers in the country, and teachers themselves will be required to show their commitment to the profession by acquiring the license (Pennington, 2017a). Since the first phase of implementation, this licensing pro- gram has reached many times more teachers in different areas of UAE. The implementation of this licensing system is likely to enhance educational standards across UAE; however, some educators are fearful of what it has for them. UAE MOE licensing program assumes a two-test evaluation. The first test focuses on pedagogy, and the second tests the applicant's knowledge of the discipline he intends to teach. Based on the test results, if they were failed, training courses are offered, customized based on the applicant's level revealed during the tests, in order to help him reach the desired level as quickly as possible in the future. Those who passed both tests will be given a license, while others will be required to go through training prior to re-appearing for the tests in 2 years period (Pennington, 2017b). Among the competencies expected from teachers are the ability to promote the values of the UAE, organizational abilities, elements of social and emotional competence and mandatory requirements for personal and professional ethics, based on European and American experience (Aslanargün et al., 2015). The licensing system is currently focused not on screening out, but on the rapid preparation and achievement of the required level by teachers (Zanella et al., 2017). This study aims to explore the UAE school teachers' impressions of the teacher licensure program impact on teacher professionalism. This study focuses on teacher perceptions and self-evaluations rather than an empirical objective validation of the licensing requirements. The findings have both governmental and academic implications and will help policymakers understand what teachers think of the licensing system and make changes accordingly. As evident, the existing literature on teacher licensing is purely based on the Western World. The UAE's teacher licensing system goes through the nascent stage. Hence, no research has addressed it yet, leastwise from a teachers' perspective. The theoretical contribution of the study is to examine the assessment of the teacher licensing process in a situation typical for developing countries, when such licensing has just started. Therefore, the present study will delve into the topic of teacher licensing in the UAE, while looking at it from the standpoint of teachers.

1.5 Aim, objectives and implementation: The aim of this study is to obtain and evaluate the initial experience of licensing teachers in the UAE on the basis of international licensing experience and search for directions for its improvement in the near future. The objectives of the research are to find an answer to a number of research questions: How do teachers who have already passed the UAE national program licensing assess the teacher professional competencies measured across dimensions of the licensing? What skills and competencies, according to the licensed teachers' perception, require more attention in teacher training and better assessment in subsequent certification? How can gender, teaching experience, and age of teachers be related to the teacher

professional competencies measured across dimensions of the licensing? The implementation of the research results implies further improve- ment of the teacher licensing system in the UAU in order to select and emphasize teaching competencies, differentiate training or requirements for teachers, taking into account gender, teaching experience or other factors, and improve the quality of licensing selection. The experience of introducing a licensing system is significant for many countries, as different education systems require comparison of different methods of licensing and quality control of teacher training. Particularly important is initial experience, such as the UAE experience, which reveals more errors and opens up opportunities for improving licensing practices in other countries as well. This is a topical issue, considering the international nature of education, labor migration and knowledge sharing.

2. Material and methods:

2.1 Participants: The respondents are teachers from public and private schools in the city of Al Ain who participated in the teacher licensing program organized by the Department of Education and Knowledge (ADEK), UAE. The sample size was calculated using the confidence interval and the margin of error. Confidence interval gives a range of values to estimate population characteristics. This operation is needed to obtain accurate results that reflect the target population as accurately as possible. The study is designed to sample 600 respondents; all teachers of the city of Al Ain who have passed the specified licensing (about 5,000 people) are accepted as the general population. The demographic characteristics of the sample were determined by demographic data for the general sample (all licensed teachers): the same as in the general sample, the percentage of genders, the ratio by age and other demographic characteristics. Based on this, at confidence interval of 0.05, the admissible sampling error does not exceed 3.75. The sample of participants was carried out by the method of random sampling to ensure the maximum representativeness of the sample. Considering the above, the sample can be considered representative. Aside from giving answers to the major research-related questions, respondents were asked to provide demographic information such as gender, age, and years of teaching experience.

2.2 Research design: This study is a survey design in which teachers' perceptions towards the teacher licensing program impact on their professional qualities and competencies were identified. The perception survey was conducted with a group of teachers from random UAE schools to ensure that the given instrument is valid and reliable. The sample of this survey is not identical to the scope of the UAE teacher licensing pilot project mentioned earlier. The content validity and the language of the questionnaire were examined by a panel of experts. The survey instrument uses two multi-item adopted scales: Teacher Licensing (TL) and Teacher Professionalism (TP). The Teacher Licensing (TL) scale was developed by the National Qualifications Authority [NQA] to ensure that teachers across career stages are able to demonstrate professional competencies that align with the aspirations of the UAE Vision 2021 and the international best practice. The TL scale is a composite of professional competencies measured across four dimensions of licensing: professional and ethical conduct, professional knowledge, professional practice, and professional growth. The Teacher Professionalism (TP) scale is composed of nine items (Table 1), which were previously described and applied in Aslanargün et al. (2015).

2.3 Research Instruments: To reach the research aim, the scale choices complement each other. The TL scale consists of professional competencies that are measured at the licensure exam, whilst the TP scale comprises attributes that define a professional teacher. The comparative quantitative analysis may be un- justified, for the given scales vary in size and composition and thus cannot be reduced to the same comparison base. Yet, responses related to similar dimensions of professionalism are comparable. For this reason, it was decided to compare the results from both scales to identify if there are inconsistencies in teacher perceptions that require additional investigation, improvement of the teacher training system, or revision of the inventory. The proposed tests were used on the basis that they were created by Arab authors on the basis of local experience in studying the problems of educational development; one of the tests was proposed, adapted and repeatedly tested by the National

Qualifications Authority [NQA] (TL), the second test (TP) was created and was also tested initially being complementary and complementary to the first test. Thus, they create the most optimal conditions for research and identify variables (for example, significant competencies of teachers) that are significant for this particular task. The instrument designs follow both the UAE and international requirements for teacher training, testing, and licensing. All items were answered using a 5-point Likert scale, ranging from completely disagree to completely agree. The scores were averaged over the entire sample and dispersion values were found.

Teacher quality and professional sensitivity	4.4333	0.624
Perception of top administrators and public to profession	3.8751	0.345
Having higher knowledge and skills	4.1268	0.698
Commitment to profession	3.8965	0.698
Professional discipline	4.5632	0.326
Professional development	3.8965	0.659
Public's perception of trust in the profession	4.5986	0.125
Perception related to the importance of the profession	4.3659	0.358
Professional autonomy	3.5620	0.123

2.4 Data Analysis: The test was carried out only once, after passing the certification. This was done in order to obtain the results of self-assessment of teachers based on the results of certification because the study did not study objective assessments of teachers' success in one or another parameter or the assessments of their students, for which a comparative analysis could be applied before and after certification. Licensing by itself does not change the teacher's quality and professional competence, as was shown in the literature have been used. Licensing confirms the qualifications and influences the teacher's performance, and it is this aspect that lies in the focus of the research. Descriptive statistics obtained in the course of the survey using two complementary tests were distributed according to gender, age, and pedagogical experience, as presented in the figure. Correlation analysis was also carried outing e Pearson linear correlation method between the weighted averages obtained in the TP test for individual competencies and factors of age, gender and experience (in years) of participants. Test data from individual participants were used to find correlations, not averaged values. The search for correlations was carried out at a significance level of α ¼ 0.05.

2.5 Ethical issues: The survey was conducted with the personal consent of all participants who were previously invited and familiarized with the objectives and methods of the survey. Each of the participants received an electronic random ID and received and then sent the completed questionnaires and conducted other correspondence through a special randomly generated email address. Thus, the anonymity of the participants during the survey was guaranteed. No personal data was collected, stored or used during the study.

2.6 Statistical instruments: For statistical processing of the data obtained as a result of test polls IBM SPSS Statistics 25.0 was used; for data visualization, the Microsoft Excel 2019 software package was used.

3. Results: Teachers were asked to self-evaluate their skills and achievements after the licensing program. No additional objective assessment was carried out, as it was sought to determine the subjective impression about the effect of licensing on the quality of teaching. The Likert-type responses normally may be far away from each other. To develop the sense of dispersion, the variance of scores was computed. The more different the scores get from each other, the higher dispersion, and vice versa. Data in Table 1 show that “Commitment to the profession” and “Professional development” scored lowest on the TP scale. A similar tendency was detected among responses related to professionalism and personal development on the TL scale (Table 2). Teachers themselves gave a high score to the promotion of UAE values (mean, 4.46689, dispersion, 0.563) and professional ethics (mean, 4.45692,

dispersion, 0.456). The “Perception of top administrators and public to profession” scored below average as compared to other attributes (mean, 3.87516; dispersion, 0.345), assuming a variation in opinions on this issue among respondents. This suggests a need for the enhancement of teacher training in terms of quality. The “public trust to” and “importance of profession” received scores that turned out to be very high (mean, 4.59864, dispersion, 0.125 and mean, 4.36598, dispersion, 0.358, respectively). Evidences in Table 2 suggest that with a more detailed inventory of assessment criteria, respondents tend to assign lower scores to their professional characteristics. Wherein, the value of dispersion is often higher, assuming a greater division of opinions. For instance, teachers most doubt their ability to implement learner centered teaching (mean, 2.98965; dispersion, 0.556). Similarly, the score of 3.22563 on “creating positive learning environment” was obtained alongside a high dispersion value of 0.569. This gap may be explained by the fact that many teachers either strive to improve or think of themselves as there are more skilled. The possibility of overestimation bias cannot be ruled out but a large sample size reduces it to a certain extent. The study was conducted with regard to demographic data but the results turned out to be rather insignificant. Specifically speaking, investigation showed little relationship between the outcome of the survey and the characteristics of respondents like gender, age and experience. Therefore, it was decided to showcase only significant differences (Figure 1). The TP scale has been already tested through Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) and proven reliable in the article of Aslanargün et al. (2015). The averaged results obtained with the TP scale in this study are displayed in Table 1.

professional and ethical conduct	showing respect to and promoting UAE Values	4.4668	0.563
	demonstrating personal and professional ethics	4.4569	0.456
	accountable for and to learners	4.2365	0.359
	meeting national and organizational expectations	3.5962	0.458
	communication and collaboration	3.2369	0.589
professional knowledge	having knowledge of Learning	3.5639	0.459
	having knowledge of learner diversity	3.9865	0.569
	having knowledge of Curriculum	4.0365	0.452
	having knowledge of	3.5692	0.659

	Teaching		
professional practice	creating positive learning environment	3.2256	0.569
	implementing learner-centered teaching	2.989	0.556
	able to use varied assessments	3.9856	0439
professional growth	reflecting on one's own teaching	3.3659	0.369
	engaging in professional development	3.2654	0.487
	evaluating impact on learner achievement	3.1312	0.482

Figure 1 shows differences between men and women in weighted sub-scores without regard to the gender ratio in the sample, as the focus was initially laid on gender-based variation of responses. Note that these differences do not exceed the weighted mean deviations of the given variables, that is, they are insignificant. The weighted average of age-adjusted response patterns, however, tells that differences relating to age are somewhat significant (Table 3). The most evident finding is that individuals in the oldest age group tend to give higher scores. For respondents aged 25 to 40, the weighted average estimates (3.6363, 3.7241, and 3.6164, respectively) fall within the mean deviation of 0.1262. The weighted average score of the 40 groups (3.8933) significantly exceeds the means deviation by contrast. This finding is worth attention, as older teachers normally have both a license and extensive teaching experience. In this study, the relationship between age and experience variables was not investigated but the re-results of weighting by work experience coincided with the above assertion. Likewise, older individuals, teachers with more years of experience gave significantly higher scores. For less experienced individuals who have 1–15 years of teaching experience, the weighted average estimates (3.6558, 3.7694, and 3.6706, respectively) fall within the mean deviation of 0.16523, wherein teachers with work experience ranging from 16 to over 20 years scored a weighted average of 3.8824 and 4.0532, respectively. Those groups which are statistically significant in weighted sub-scores show a tendency towards higher means (Table 4), which may diverge significantly be- tween these two groups.

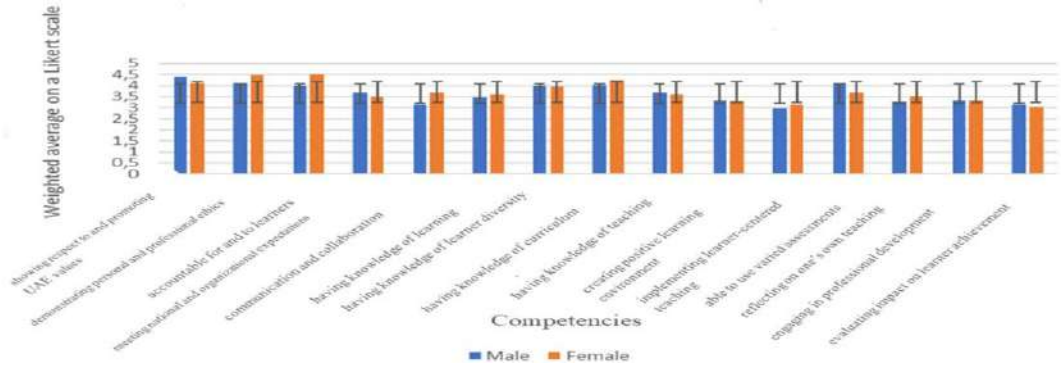

Figure 1:" Gender differences in perception of teacher licensing impact on teaching competencies

Thus, among characteristics that define the quality of teaching and professional development, teachers

distinguished those associated with social connections by assigning higher scores to them. Meanwhile, those attributes that relate to professional skills scored significantly lower. Based on these data, there are the communication competencies, the skills of collaboration with students and other teachers within the framework of the general teaching curriculum and the teaching skills proper that need to be strengthened in teacher training and should be given a stronger focus in licensing. Older respondents and those with more experience (16 years) rated many competencies higher. Although single sub-scores may vary greatly between those groups, their weighted averages of all sub-scores still will be significantly higher. This concludes that licensing is more social, rather than professional, instrument. Professional skills are given high scores by more experienced teachers, while a relatively lower estimation raises a concern, as it means that teachers became more self-critical. Licensing contributes to a more critical and more adequate self-perception of professional competence, as it is based on high-level standards that rely largely on international, rather than local or regional, experience, at least in the UAE. The interviewed teachers could have rated themselves higher in many competencies, but they did not; at the same time, it is clearly necessary to improve the quality of licensing in the selection on the basis of professional teaching skills and communication competencies (Zubkova et al., 2019). There- fore, there is no need to re-assess professional competence of participants in the future. The study of the correlation links between the estimates obtained in the framework of the tests used by the study and the factors of age, experience and gender demonstrated the following (Table 5). The strength of correlation of all types of assessed competencies with gender and age should be assessed as low or, at best, medium. Only two studied competencies ("demonstrate knowledge of learning, development and diversity" and "demonstrate learner centered teaching") showed a correlation r .33 and r .31, respectively. A positive, pre- dominantly strong correlation was revealed between the majority of competencies and the size of the teachers' experience (in years). The more experience, the higher the assessment of the corresponding competencies. The described correlation decreases to medium strength and lower in some competencies. Competencies have the strongest correlation with experience: "respect and promote UAE values" .71; "demonstrate personal and professional ethics" .69; "be accountable for and to learners" .66; "demonstrate learner centered teaching" .64. Such a picture of correlations indicates the manifestation in the self-assessment of teachers of the peculiarities of national traditional significant relations between the student and the teacher and the high social status of the teachers and their role in the transmission of national values. At the same time, no significant links between the level of competence assessment in the course of licensing and gender or age characteristics were found.

Table 4: Averaged scores on the Teacher Licensing (TL) Scale by National Qualifications Authority (NQA) (by experience).

respect and promote UAE values	4.31345	0.354	4.12424	0.407	4.41295	0.339	4.59708	0.319
demonstrate personal and professional ethics	4.05065	0.411	4.16942	0.379	4.12365	0.502	4.86722	0.451
be accountable for and to learners	4.00511	0.387	4.14188	0.276	3.58476	0.347	4.41332	0.474
comply with national and organizational expectations	3.35987	0.219	3.98715	0.548	3.46925	0.404	4.59218	0.522
establish	3.11309	0.402	3.68897	0.486	3.24356	0.415	3.87873	0.518

communication and collaboration								
demonstrate knowledge of learning	3.46486	0.388	3.56498	0.418	3.49987	0.329	4.12035	0.437
development and diversity	3.84864	0.463	3.98942	0.392	3.97716	0.377	3.32313	0.569
demonstrate knowledge of curriculum	3.98732	0.414	4.25769	0.342	4.23416	0.284	4.33647	0.562
demonstrate knowledge of theoretical basis of teaching	3.74822	0.381	3.56817	0.358	3.6953	0.501	3.59943	0.417
promote positive learning environment	3.41694	0.386	3.3645	0.284	3.33383	0.433	4.12032	0.384
demonstrate learner-centered teaching	2.97895	0.43	3.42338	0.411	2.99635	0.438	2.34486	0.378
use assessment for learning	4.12456	0.429	3.66782	0.501	4.16836	0.51	3.77652	0.521
reflect on own teaching	3.34348	0.299	3.48672	0.499	3.16245	0.459	3.18262	0.426
engage in professional growth	3.46588	0.316	3.42216	0.519	3.35618	0.268	3.31121	0.431
determine impact on learner achievement	3.32351	0.508	3.00567	0.439	2.98832	0.517	3.93721	0.319

4. Discussion: There are studies corroborating teacher licensure as well as studies devaluing it. A 2003 summary of 92 research works on teacher preparation perfectly shows the competing evidence. The summary identifies that, besides strong content knowledge, knowledge of how to teach a specific subject is also crucial. On the other side, the summary also identifies that while preparation in pedagogy contributes to effective teaching, it is not clear whether such preparation is best obtained via college coursework, on-the-job experience or field experience (Darling-Hammond, 2016), or combination of these factors. Research on NYC teacher certifications and their impact on student outcomes identified those improvements in teacher qualifications, particularly in schools for poor children, appeared to have led to improved student outcomes (Goldhaber et al., 2017). The use of alternative licensing methods in the United States without licensed exams has shown minor differences in teacher training, but still with a bias towards more effective examinations (Shuls and Trivitt, 2015). Another study showed that private school students taught by fully certified teachers failed to outperform students from private schools where teachers were not fully certified (Biesta, 2017). No association was found between licensure test scores and teaching quality in the USA (Los Angeles) (Buddin and Zamarro, 2008). Meanwhile, a brief out of Indiana University claims that teachers

who are fully certified via traditional teacher education program have a more positive impact on student achievements as compared to teachers who are not. EXploring the earlier research, Goldhaber (2019) identified that Teach for America (TFA) members (majority of whom were not trained through customary teacher education programs) were more effective as compared to other new teachers in reading, science, math, and English language arts. This data further shows that they are more comparable to experienced licensed teachers than new teachers in terms of effectiveness. There is slight evidence that licensure exams do act as a forecaster of teacher performance. Utilizing statewide data from a few states of USA, Allington et al. (2017) showed that overall school district performance on standard tests has enhanced with the overall performance of school teachers in the district on the National Teacher Test. Archambault et al. (2016) found that in the US, where teachers need to pass a license test, school districts with greater overall teacher performance on the exam have demonstrated higher student performance in math. Such findings are crucial because they indicate that licensure policies could impact student outcomes. Nonetheless, there is no surety that this is always the case. For example, most states in the USA which mandate teachers to pass certification tests have established comparatively modest obstacles.

respect and promote UAE values	4.3265	0.415	4.1845	0.426	4.4413	0.547	4.5979	0.554	4.3004	0.494
demonstrate personal and professional ethics	4.0102	0.291	4.1994	0.414	4.2846	0.289	4.7418	0.517	4.3156	0.421
be accountable for and to learners	4.12561	0.402	4.1649	0.299	3.5171	0.256	4.4361	0.514	4.2965	0.399
comply with national and organizational expectations	3.3491	0.322	3.9871	0.402	3.4519	0.364	4.612	0.414	4.2897	0.421
establish communication and collaboration	3.1252	0.337	3.6169	0.416	3.2591	0.389	3.8824	0.422	4.2899	0.528
demonstrate knowledge of learning, development and diversity	3.5176	0.501	3.5517	0.321	3.4845	0.212	4.1818	0.512	4.3026	0.431
demonstrate knowledge of	3.8519	0.416	3.9748	0.297	3.7171	0.362	3.3333	0.269	4.5634	0.202

curriculum										
demonstrate knowledge of theoretical basis of teaching	3.9717	0.329	4.2777	0.336	4.2448	0.368	4.3415	0.417	4.3249	0.298
promote positive learning environment	3.7518	0.314	3.4981	0.481	3.6853	0.299	3.5112	0.333	3.6918	0.381
demonstrate learner-centered teaching	3.4261	0.288	3.3814	0.328	3.3815	0.366	4.1211	0.277	4.2619	0.501
use assessment for learning	2.9887	0.213	3.4118	0.441	2.9718	0.446	2.3345	0.378	3.1659	0.437
reflect on own teaching	4.2355	0.392	3.6514	0.281	4.2717	0.284	3.7118	0.382	3.7895	0.297
engage in professional growth	3.3515	0.235	3.44977	0.296	3.2921	0.301	3.1975	0.261	3.4969	0.318
determine impact on learner achievement	3.1499	0.202	3.4234	0.287	3.3861	0.289	3.3514	0.322	3.6569	0.312

Table 5: The results of the correlation analysis between the studied competencies and gender, age and experience factors (Pearson's linear correlation was used; at a significance level of 0.05).

respect and promote UAE values	.21	.23	.71
demonstrate personal and professional ethics	.11	.19	.69
be accountable for and to learners	.18	.21	.66
comply with national and organizational expectations	.17	.13	.45
establish communication and collaboration	.21	.26	.33
demonstrate knowledge of learning, development and diversity	.13	.33	.28
demonstrate knowledge of curriculum	.14	.24	.28

demonstrate knowledge of theoretical basis of teaching	.11	.17	.33
promote positive learning environment	.17	.11	.16
demonstrate learner-centered teaching	.14	.31	.64
use assessment for learning	.11	.12	.24
reflect on own teaching	.09	.26	.44
engage in professional growth	.17	.21	.34
determine impact on learner achievement	.19	.22	.31

Hence, it could be the case that states in the US do not have a considerable impact on the teachers' quality in the classroom because they are not doing much to screen out incompetent candidates (Archambault et al., 2016). The European Commission develops guidelines for the implementation of a system of professional competencies for teachers and forms certification requirements. The European Commission noted in 2012 that it is necessary to clearly understand what society expects from the teaching staff. The lack of this understanding makes it difficult to ensure that the same high teaching standards are applicable in all schools (Goldhaber, 2019). Different countries in Europe use different approaches to formulate the list of core competencies expected from teachers. Finland and France offer very generalized lists of such competencies and professional standards, while other countries have prescriptive lists that must be met for career advancement (Kotenko and Holovatenko, 2020). In most European countries, certification is implemented in the higher education program and a university diploma with a pedagogical focus is analogous to a certificate giving the right to teach at school or university exams include a certification program (Binytska et al., 2020). The most stringent educational requirements are found in Finland, where the status of an elementary school teacher requires a master's degree in education. France has a system of competitive recruitment of teachers who have the status of civil servants. For them, university education and the education of Higher Schools of Teaching and Education are obligatory. As a rule, holders of teaching licenses in most EU countries have the right to teach on a non-permanent basis (Zanella et al., 2017). In Sweden, England, Spain and a number of other European countries, teachers must be registered with a special pedagogical national body, for example, the General Council of Education of England in the UK (Kotenko and Holovatenko, 2020). Researchers point out the importance of time limits in licensing. The rapid development of science as well as the emergence of new teaching methods and new competencies requires teachers to confirm their skills (Archambault et al., 2016). One of the main problems currently being studied is the insufficient technology competence, which manifests in poor knowledge of elementary and/or blended learning techniques and in below-average digital skills (Goldhaber et al., 2017). The experience of hyper-digitalization during the Covid-19 pandemic further demonstrated the critical importance of digital literacy and the rapid development of digital competencies among teachers (Al-Karaki et al., 2021; Kumari et al., 2020). Accordingly, the requirements for digital competencies should be consistently tightened in the rules for licensing teachers every year. One of the options for implementing this requirement, based on the average relatively low level of digital literacy among modern teachers in the UAE, can be a gradual increase in the corresponding licensing requirements over 3–5 years (al Darayseh, 2020; Al-Karaki et al., 2021; Leoet al., 2021).

4.1 Research limitation: Although the study sample is representative, it covers only one city, while social, ethnic and subject variability in teacher professionalism as influencing factors can significantly influence the licensing process. The study of these factors is the goal of further research in this direction.

5. Conclusion: This study is one of the first to explore the UAE licensing experience where a large sample of teachers was asked to self-evaluate their quality through two specially developed assessment scales reflecting the required competencies of state licensing programs. According to self- report scores, the teacher's professional competencies measured across dimensions of the licensing were very high after the licensing test. The low scores may also be

considered the impact of licensing, which encouraged respondents to make more accurate and adequate self-evaluations. The competencies identified by licensing were assessed on the basis of self-assessment and a strong correlation was found between a number of competencies and having more teaching experience. The re- sults demonstrate that individuals in the oldest age group tend to give higher scores. Teachers assess their own theoretical knowledge and el- ements of social competence as generally higher than specific and prac- tical skills, including management skills. This study provides information about the quality of licensing and its impact on the development of pedagogy in the UAE and the Middle East in general. It also contributes comparative data for assessing the licensing situation in developed Western countries. The present findings may be useful as pointers to both prepare teachers for the licensing exam and determine weaknesses of the teacher training program. In the future, the study shall examine the licensing impact on teacher quality with regard specifically to gender, age, and work experience in order to verify and explain the present findings.

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Comparison Of Market Risk on Mongolian Financial and Food Industry: Portfolio Approach

Dolgorsuren Jamsrandorj
Mongolian Institute of Education and Economic Research, Ulaanbaatar, Mongolia

Abstract: Comparing to Security Exchange Commission of United Nations or other developed countries, Mongolian Security Exchange is much younger, only 30 years of development. But in modern days, people participating in the capital market are increasing year by year and it is crucial to decide which asset to invest for beginners. In order to determine less market risk bearing industry, we used beta coefficient and portfolio construction approaches for finance and food industry of Mongolia. 10 companies from the two industries were under consideration. As a result, we find that the final conclusion can differ depending on portfolio construction approach we use. Using the optimally weighted portfolio approach, the food industry bears more market risk than finance industry in Mongolia. Beta coefficients are 0.5 and 0.25, respectively. For risk-averse investors, we recommend lower market risk portfolios such as the finance industry.

1. Introduction: Almost 230 years ago, on the corner of Wall Street and Broadway, the most famous stock exchanging platform known as Wall Street was born. Since the time the concept "stock" was known in the whole world, millions of people have been winning a return or losing their wealth. In one of the classic examples of developing countries, in Mongolia, the first stock exchanging platform named MSE was introduced in 1991, 30 years ago. Through the life time, developers hardly worked on the process and today it is nearly as developed as the stock exchange of big countries. In 2017, the market turnover reached MNT859.2 billion, the highest in its 30 years of history and the TOP-20 index was one of the best performing indexes in the world with 68.9% increase while market capitalization gained 67.4% (KHANGAI,2019). With regard to 2019, the primary market turnover reached peak in its history. Currently, 18 stocks from 6 industries are on A-class stocks of MSE and are traded daily on MSE. The A-class stocks are mostly traded and other stocks are relatively thinly traded on the market. 13 of the stocks are from financial and food industry, and other 5 are from 4 different industries. In order to compare market risk of the financial and food industries, I chose the following 10 companies:

Company name	Ticker symbol	Industry
MIK Holding JSC	MIK	Financial Service
Ard Insurance JSC	AIC	Financial Service
BD Securities	BDS	Financial Service
LENDMN	LEND	Financial Service
Mandal Insurance	MDL	Financial Service
Talkh Chiher	TCK	Food
Milk JSC	SUU	Food
MahImpex	MMX	Food
APU	APU	Food

Tumen shuwuut	TUM	Food

Table 1: List of stocks under consideration

As food and financial service industries make the 63.2% of the A-class stocks by market capitalization, it is crucial to define which industry has greater risk associated to the market. As long as every investor on the world is concerned about returns, the unavoidable concept, risk, should always be discussed. Among all the types of risk, one which ties price of the underlying with the whole market of it is the systematic risk we know. It refers to the variation of return on stocks associated with changes in the return on the market in general. Through the time, economists and analysts evolved many methods to measure relationship between a stock and the capital market. In this paper, we used the heart of Sharpe-Lintner Capital Asset Pricing Model, which is the beta coefficient. Since the CAPM model plays a very important role in establishing the investment portfolio, as Mongolia's stock market continues to develop, the CAPM model will also be increasingly used in Mongolia. Therefore, it is necessary to test the applicability and effectiveness of CAPM in an emerging capital market like Mongolia. After 30 years of development, the Mongolian stock market has made great achievements. As an important part of Mongolian securities market, the stock market plays an important role in economic development and social stability. Comparing to other highly developed countries, Mongolian capital market has much lower turnover, not because of the trading platform or brokers, but caused by low population of only 3.3 million people, and financial knowledge of them. Currently, 1.85 million people have security accounts on brokerage firm (L, 2020). And more than 60% of the accounts are inactive. Of course, there will be significant difference in making comparison by beta of individual stock, or comparing two equally weighted portfolios, or optimally weighted portfolios. In this paper we tried to make comparison of risk of the industries by using all of the 3 approaches mentioned above and the final result will be based on the optimally weighted portfolio comparison. Unfortunately, there is not any publicly available existing research on this topic in Mongolia. But we do have some studies in usage if beta and portfolio construction form overseas. For example, a paper named "Systematic Risk at the Industry Level: A Case Study of Australia" studied industrial risks using CAPM, FF3F, FF5F, C4F models. Lining with its previous studies, in conclusion, it stated that "The verification of beta as a measure of systematic risk varies considerably with the type of portfolio construction, the employed estimation technique, and/or the selection of news about economic condition, which party contribute to the asset pricing puzzle." As concluded, the paper differs on purpose significantly from our research. In other words, it does not conclude which industry is riskier. Another paper named "Considering the DAPM: Low-beta and High-beta Industries" also worked on data of 12 industries of US SEC and concluded the risk of them. As a result of this paper, we tried to recommend which industry to invest and how should the portfolio be constructed, and how much will the data be, compared to another portfolio consisting of the other industry.

2. Theoretical Framework: Return calculation: A return, also known as a financial return, in its simplest terms, is the money made or lost on an investment over some period of time. A return can be expressed nominally as the change in dollar value of an investment over time. A return can also be expressed as a percentage derived from the ratio pf profit to investment. (Hayes, 2020) Return can be calculated differently by compounding methods. For example, a holding period return can be calculated as final value of the asset increased by benefit it gave at the end of the holding period divided by initial value minus one:

$$oldingperiodreturn = \frac{Priceattimet + benefit}{Priceattime0} - 1$$

Equation 1: Holding period return

Continuously compounded return gets the use of exponential, but this method is an exception for our paper.

The risk measurement: Modern academic finance is built on the proposition that markets are essentially rational. The initial model of market rationality is the capital asset pricing model (CAPM). The CAPM developed by Sharpe (1964) and Lintner (1965), marks the birth of asset pricing theory. The CAPM is still widely used in applications such as estimating the cost of capital for firms and evaluating the performance of managed portfolios (Rossi, 2017). The attraction of the CAPM is that it offers powerful, intuitively appealing predictions regarding how to measure risk and of the relationship between expected returns and risk. The model is an idealized depiction of how financial markets price securities and thereby determine expected returns on capital investments.

$$RequiredReturn = R_f + B * \left(R_m - R_f\right)$$

Equation 2: Required rate of return by

$R_f - Riskfreerate$
$R_m - Marketreturn$
$B - Companyspecificcoefficientofrisk$
$associatedmarket$

The CAPM provides a methodology for quantifying risk and translating it into estimates of expected return on equity (ROE). The principal advantage of CAPM is the objective nature of the estimated costs of equity that the model can yield. Financial managers can use it to supplement other techniques and their own judgement in attempting to develop realistic and useful cost of equity calculations. Although its application continues to generate debate, modern financial theory is now applied as a matter of course to investment management. And increasingly, problems in corporate finance are also benefiting from use of the same techniques (Rossi, 2017).

Beta = slope of the line

Figure 1: Explanation of Beta Coefficient

As known on the formula above, the investor's required return consists of 2 parts which are risk free rate and risk premium. The risk premium is calculated as difference between market risk- and risk-free rate multiplied by the beta coefficient of the company. The Beta coefficient is a measure of sensitivity or correlation of a security or an investment portfolio to movements in the overall market index or benchmark. Generally, the index of one is selected for the market index, and if the stock behaved with more volatility than the market, its beta value will be greater than one. If the opposite is the case, its beta will be a value less than one. A company with a beta of greater than one will tend to amplify market movements (for instance the case for the banking sector), and a business with a beta of less than one will tend to ease market movements. One of the most popular uses of Beta is to estimate the cost of equity in valuation models. The CAPM estimates an asset's Beta based on a single factor, which is the systematic risk of the market. The cost of equity derived by the CAPM reflects a reality in which most investors have diversified portfolios from which unsystematic risk has been successfully diversified away. In general, the CAPM and Beta provide an easy-to-use calculation method that standardizes a risk measure across many companies with varied capital structures and fundamentals. The largest drawback of using Beta is that it relies solely on past returns and does not account for new information that may impact returns in the future. Furthermore, as more return data

is gathered over time, the measure of Beta changes, and subsequently, so does the cost of equity. There are then two ways to determine data. The first is to use the formula for beta, which is calculated as the covariance between the return of the stock and the return of the index divided by the variance of the index (over a period of three years).

$$B = \frac{Cov(R_{company}, R_{market})}{Var(R| \quad |market)}$$

Equation 3: Beta Coefficient

B – Beta coefficient of the company

Cov – Covariance

Var – Variance

R_company-Returnofthecompany underdiscussion

R_market-Returnofthemarketindex

The second method is to perform a linear regression, with the dependent variable performance of stock over the data as an explanatory variable and the performance of the index over the same period. The coefficient of the explanatory variable is our beta (the covariance divided by variance). /This method is not used in this paper/ Beta can be seen as a measure of risk: the higher the beta of a company, the higher the expected return should be to compensate for the excess risk caused by volatility. Therefore, from a portfolio management or investment perspective, one wants to analyse any measures of risk associated with a company to gain a better estimation of its expected return.

Portfolio construction: Portfolio construction is a widely-used theory on how investors can construct investment portfolios to maximize expected returns and minimize risk. The practice of portfolio construction includes implementing an asset allocation strategy, which involves balancing investment risk and return by adjusting the percentage of a portfolio allocated to each asset class (Sandhar, Jain & Kushwash, 2018). Expected return of a portfolio is a return which and investor expects to earn from holding a portfolio for an amount of time. The portfolio expected return is calculated as sum of the expected returns from each asset multiplied by their weights:

$$w_a * R_a + w_b * R_b + \cdots = \sum_{i=1}^{n} w_i * R_i$$

Equation 4: Expected return of a portfolio

Portfolio weight is one of the most important measurements, which defines the risk and return of the whole portfolio. Portfolio weight is the percentage of an investment portfolio that a particular holding or type of holding comprises. The most basic way to determine the weight of an asset is by dividing the dollar value of a security by the total dollar value of the portfolio (Chen, 2020). There are many portfolio construction methods such as equally weighted portfolio construction, optimal risky portfolio and etc. Modern portfolio theory (MPT) is a theory on how risk-averse investors can construct portfolios to maximize expected return based on a given level of market risk. Harry Markowitz pioneered this theory in his paper “Portfolio Selection”, which was published in the Journal of Finance in 1952.1 He was later awarded a Nobel Prize for his work on modern portfolio theory. Modern portfolio theory argues that an investment’s risk and return characteristics should not be viewed alone, but should be evaluated by how the investment affects the overall portfolio’s risk and return. MPT shows that an investor can construct a portfolio of multiple assets that will maximize returns for a given level of risk. Likewise, given a desired level of expected return, an investor can construct a portfolio with the lowest possible risk. Based on statistical measures such as variance and correlation, an individual investment’s performance is less important than how it impacts the entire portfolio. MPT assumes that investors are risk-averse, meaning they prefer a less risky portfolio to a risker one for a given level of return. As a practical matter, risk aversion implies that most people should invest

in multiple asset classes. (Chen, Modern Portfolio Theory (MPT), 2021) In an equally weighted portfolio, all the assets in it have the same weight. Which means the return and risk of every single asset affects equally to the portfolio constructed by those.

$$w_a = w_b = w_c = w_d \ldots$$

Equation 5: Weights of an equally weighted portfolio

The optimal risky portfolio does not only define a weight, but also it maximizes the additional return over risk free rate per standard deviation, a risk measurement by fluctuation. The measurement which must be maximized, we mentioned above is named Sharpe-Ratio. The Sharpe ratio was developed by Nobel laureate William F. Sharpe and is used to help investors understand the return of an investment compared to its risk. The ratio is the average return earned I excess of the risk-free rate per unit of volatility or total risk. Volatility is a measure of the price fluctuations of an asset or portfolio. Subtracting the risk-free rate from the mean return allows an investor to better isolate the profits associated with risk-taking activities. The risk- free rate of return is the return on an investment with zero risk, meaning it's the return investors could expect for taking no risk. (Fernando, 2020)

$$SharpeRatio = \frac{R_p - R_f}{sigma_p}$$

Equation 6: Sharpe Ratio

3. Methodology: Our mail purpose is to determine the risker one of the finance and food industry, then provide an investment plan by constructed portfolio which is used on comparison. In order to achieve this, following few steps should be taken: 1. Choosing the appropriate companies; 2. Selecting analysis time horizon and collecting data of the companies chosen; 3. Construct a monthly time series of returns by using the price data; 4. Find the beta coefficients of individual stocks by determining covariance between assets and market (MSE TOP-20). The first conclusion must arise from here; 5. Construct an equally weighted portfolio of two industries, then find and compare betas for each of portfolios; 6. Construct an optimally weighted portfolio which maximized the share ratio, then find and compare betas for each of portfolios:

Data collection and selection: The MSE keeps the trading data of Mongolian stocks on its website which is publicly available. The mostly traded stocks are A-class stocks of MSE and it consists of 18 stocks from 6 industries. 13 of the stock are from finance and food industry. In order to make the comparison sound, we chose equal number of stocks from the 2 industries. 6 of each could be possible but 2 of companies, which are "Bodi insurance" and "Monos food", publicly traded too later than others, on Jun 2020 and May 2019, respectively. As the available public data on those 2 companies is too short, we chose 10 companies, 5 from finance industry and 5 from food industry which are shown on introduction section.

4. Results: Beta coefficients of individual stock are an important measure to conclude which industry is riskier and we can even define the riskiest stock among the 10 stocks under analysis.

	MIK	AIC	BDS	LEND	MDL	TCK	SUU	MXX	APU	TUM
Covar	0.33	0.10	0.22	0.16	0.14	0.15	0.20	0.14	0.34	0.21
Variance	1.61	0.51	0.99	1.17	0.26	0.51	0.83	0.58	0.67	0.76
Var	0.36									
Beta	0.91	0.29	0.6	0.44	0.37	0.42	0.55	0.38	0.93	0.58

Table 2: Beta Coefficients of Individual stocks

As shown on the table above, the most market-risk bearing stocks are APU and MIK. The highest-lowest beta ranking is shown as:

	Beta	Rank	Industry
APU	0.93	1	Food
MIK	0.91	2	Finance

BDS	0.60	3	Finance
TUM	0.58	4	Food
SUU	0.55	5	Food
LEND	0.44	6	Finance
TCK	0.42	7	Food
MXX	0.38	8	Food
MDL	0.37	9	Finance
AIC	0.29	10	Finance

Table 3: Ranking of the stocks by their beta

The ranking shows the lowest market risk bearing stocks are from financial industry. But it is too early to conclude that food industry in Mongolia is riskier than finance industry.

Equally weighted portfolio comparison: In and equally weighted portfolio, all the assets in it affect portfolio return exactly the same way. The expected monthly returns for BDS and LEND are lower than zero. So, the stocks were eliminated from the portfolio. On the other hand, TUM from food industry bears return lower than zero and is also an exception for the portfolio.

Industry	Finance	Food
Covariance	0.214%	0.208%
Beta coefficient	0.59	0.57

Table 4: Betas of equally weighted portfolios

The table above shows estimation of beta coefficient constructed by positive return bearing stocks from each industry. The beta of the finance industry is slightly higher than the food industry which implies the market risk for the finance industry in Mongolia has slightly higher risk compared to Mongolian food industry.

5. Conclusion: From the beginning of the research work, we hoped that this research on Mongolian two big industries can help investment decisions for risk averse investors in Mongolia. It is hard to blindly say which industry bears higher market risk without any number for any economists. The beta coefficient approach we used in order to define the risker industry helped a lot to recommend an investment decision. As shown on the final result, the beta coefficient of food industry is higher than that of finance industry, which means the market risk of food industry is higher than finance industry in Mongolia. During the research, we found that the portfolio construction approach we use is the most important feature of result. On an equally weighted portfolio, the coefficients were almost equal to each other, where beta of finance industry was slightly higher than food industry, implying that finance industry bear s little bit more market risk than food industry in Mongolia. Furthermore, in the individual beta calculation section, we found that the riskiest stock was APU which is a food industry company, while the lowest beta companies were MDL and AIC which are the finance industry stocks. From the individually calculated beta coefficients, we can predict the conclusion as food industry bears more market risk. However, the equally weighted portfolio shows finance industry bears a bit more market risk than food industry. The portfolio construction approaches a rational investor would use is definitely the optimal risky approach, we assume. The optimally weighted portfolio showed that beta coefficient of the food industry is significantly higher than that of finance industry. So, comparing the optimally weighted portfolio approach to other two comparison approaches we used, the results can differ significantly following the approaches we use. For further research to compare other industries than food and finance, researchers need data with reliable and long-time horizon. Currently, other hundreds of stocks in B-class or C-class are too thinly traded to make conclusion. Comparing to other stock exchange commissions in highly developed countries, Mongolian turnover is much lower, not because of the platform development or broker, but because of the population, and financial knowledge of people in the nation as mentioned in the introduction section. In order to extend this kind of industrial market risk comparing researches

in Mongolia, the capital market must be more active. To achieve an active capital market, financial market knowledge of the nation and individual money surplus after consumption must be sufficient. So that, individuals can directly invest into capital market using some of their surplus instead of saving all. We hope that in 10-15 years, Mongolian capital market turnover will be much higher and number of actively traded stocks increase dramatically to be able to use any analytical approaches without any struggle.

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Gender Differences in The Perceptions of Online Learning

Ahmed Al-Hunaiyyan
Faculty of Computer and Information Systems Department, College of Business Studies, Public Authority for Applied Education, Kuwait

Shaikhah Al-Ainati
Business Department, College of Business Studies, PAAET, Kuwait

Prof. Faisel Al-Hammad
Business Department, College of Business Studies, PAAET, Kuwait

Rana Alhajri
Computer Science Department, HITN, PAAET, Kuwait

Abstract: This research investigated gender differences within the use of online learning. Gender is highly recognized in the literature as an influencing factor in human-computer interaction research, however some scholars believe that its influence is overemphasized. Organizations face crises such as the ongoing Covid-19 pandemic, during which educational institutions at all levels have had to shift to e-learning. Instructors have had to adapt to this change in the way skills and knowledge are delivered, and not all actors have been properly prepared to do so: Instructors' ability to manage e-learning is vital to ensuring its effective implementation, but the rapid change from traditional to online methods, with very little opportunity for preparation or training, has undermined the confidence of some instructors. This study used a quantitative approach and a questionnaire collected from 309 instructors to elucidate instructos' perceptions at the Public Authority for Applied Education and Training (PAAET), a higher education institution in Kuwait. The findings indicated that there are significant differences

between male and female instructors' perceptions of online learning. The results also indicated that instructors had a positive experience of the online virtual learning however, barriers such as poor helpdesks, lack of training, less management motivations, and limited electronic educational materials were recorded.
Keywords: Gender Differences, Online Learning, E-Learning, Faculty Members.
1. Introduction: Organizations face crises such as the ongoing Covid-19 pandemic, during which educational institutions at all levels have had to shift to e-learning, also known as "distance" and "virtual" learning (Al-Hunaiyyan, Al-Hajri, & Bimba, 2021). This is a crucial issue for developing countries when faced with an issue like COVID-19 pandemic (Gigauri, 2020). Instructors had no chance to prepare for this change, their ability to teach their subject in the classroom may not be so satisfied with their technical abilities. With these difficulties, e-learning remains beneficial not only for the education sector but also for all aspects worldwide with the customized learning experience (O'Doherty, et al. 2018). Universities and colleges are adapting such technologies to develop quality education and accommodate user groups to be involved in the teaching and learning processes in their educational institutions. The role of the educator within learning has been much debated, but it is arguably gaining in importance. Hence, it can be argued that intensive training is required for instructors, in particular, so that they are competent to deal with new modes of delivery with the various learning management systems now adays (Al-Sharhan S., Al-Hunaiyyan, Alhajri, & Al-Huwail, 2020; Al-Hunaiyyan, Al-Sharhan, & Al-Hajri, 2020). That said, it is also important to address other issues which will enable all actors to adapt efficiently to the new environment, and this concern less the educator's role than concepts and work processes. Developers, therefore, need to constantly be creating better, more usable systems informed by understanding their potential users with considerations of social and cultural issues (Alhajri, Al-Sharhan, Al-Hunaiyyan, & Alothman, 2011); individual differences (Al-Huwail, Al-Sharhan, & Al-Hunaiyyan, 2007); and gender and age differences (Al-hunaiyyan, Al-Sharhan, & Alhajri, 2017). The differences between people, which can be affected by gender, may have an impact on the way users use online systems. Instructors' perception varies depending on different user constructs such as personality, cognitive styles, gender, age, and prior knowledge which can affect users' perceptions and attitudes toward technology (Alhajri, Alhunaiyyan, & AlMousa, 2017). Gender is a vulnerable factor in an environment like Kuwait's collective conscience. Because of societal conventions, the usage of technology may differ between male and females Understanding the conservative society we live in, particularly in the field of technology and system utilization, requires synthesizing this sensitivity, gender, and culture (Alainati S. J., 2021). Given their collectivist cultural milieu, it is reasonable to expect Kuwaiti males and females to utilize online programs primarily as a social link (Al-Kandari, Al-Sumait, & Al-Hunaiyyan, 2017; AL-Kandari, Alhunaiyyan, & ALhajri, 2016). In Kuwait, little study has been conducted on individual variables such as gender variations in mobile learning (Dashti & Aldashti, 2015). This study attempts to close the gap by examining online learning with an emphasis on gender inequalities. The purpose of this research is to look into instructors' impressions of online and virtual learning technologies utilized by the Public Authority for Applied Education and Training (PAAET). Given the scarcity of research on this topic and the backdrop of Kuwait's educational system, it is a pioneering study (Al-Sharhan, Al-Hunaiyyan, & Al-Sharrah, 2010). It assesses online learning in an uncharted environment in Kuwait, where minimal research has focused primarily on gender disparities. This study's findings will teach system developers about unique growth opportunities that can increase prospective usage of online and virtual learning. These enhancements will not only increase the efficiency and beauty of the systems, but will also improve user interactions, taking gender differences into account, and improve their perception of its associated functions (Morville, 2014). This article is organized as follows. Section 2 reviews the relevant literature, and section 3 explains the methodology. The results and a discussion are presented in section 4, while section 5 draws the conclusion.

2. Literature Review: In the early stages of the Covid-19 pandemic, governments around the world introduced restrictions on how many people could meet in public spaces. Under these circumstances, the sector globally was

obliged to seek out new modes of delivering and receiving education, among which was the creation of mandatory online learning so academic courses underway at the time the restrictions were imposed could be completed (Lau, Yang and Rudrani 2020). This sudden transition to distance learning impacted instructors in practically all countries. In particular, instructors who to that date had not questioned their competence to impart the required skills and knowledge found themselves less confident when obliged to use the technologies involved in the online delivery (s. Alainati 2021) which abruptly became the "new normal" during the pandemic (Obrad, 2020; Ionescu, et al., 2020). Given Kuwait's position as a developing nation, pre-pandemic little use was made of information and communication technology (ICT) within the education sector. Online learning, where present at all, was at a rudimentary stage, and the vast majority of lessons were delivered face-to-face in a traditional classroom setting (Al-Hunaiyyan, Alhajri, & Al-Sharhan, 2018; Al-Hunaiyyan, Alhajri, Al-Sharhan, & Al-Ghannam, 2021). Although a variety of initiatives had attempted to introduce and support online learning in public education institutions, there had been little take-up among users. Indeed, although Kuwait is a wealthy nation, it appeared that its low capacity and poor rate of innovation had caused it to fall behind other states in this regard (AlKharang 2014). A considerable body of research has emerged on the role of instructors in e-learning. The model developed by (Yengin, Karahoca, Karahoca, & Yucel, 2010) lays out steps which instructors can follow to create online learning content that will effectively engage learners. It also offers instructors access to free-for-use tools that can be used to produce interactive learning. Meanwhile, (Almas & Machumu, 2021) carried out quantitative and qualitative research to explore the perspectives, motivations, and e-learning competence of instructors at Mzumbe University, with results indicating a generally positive perspective on the use of e-learning systems and suggesting that such systems are principally used to generate teaching notes, assessments and feedback, and course outlines, as well as for the online grading of learners' work. The authors (Zareie & Navimipour, 2016) investigated the relationship between e-learning systems and employee commitment and found the latter was significantly positively impacted by four variables: learner satisfaction, 24/7 access to training materials, personalized learning, and efficiency. Similarly, (Liu, Zhao, & Su, 2022) examined perceptions among instructors of students' online learning outcomes and whether such outcomes could be predicted by instructors' resilience and competence in online delivery. The authors (Batalla-Busquets & Pacheco-Bernal, 2013) stressed that instructors should be trained before they embark on designing and delivering online courses (Alainati S., 2015). Several studies have found gender variations in technology use in cross-cultural contexts (Hijazi-Omari & Ribak, 2008; Baron & Hård af Segerstad, 2010; Alhajri, Al-Sharhan, Al-Hunaiyyan, & Alothman, 2011). Goh (2011) investigated how male and female students in New Zealand perceived a text messaging service (SMS). The findings demonstrated substantial variations in perceived utility and intention to use between males and females, but no significant differences in self-efficacy or ease of use. Furthermore, Baron and Cambell (2012) report on gender characteristics discovered in a cross-national research of college students' usage of smart phones in four countries: the United States, Japan, Sweden, Italy, and Korea. The findings indicated many gendered usage and attitude trends. Baker et al. (2007) used Saudi Arabia as an example of a country with cultural traditions linked to gender inequalities. According to (Boy, 2017), users' impressions might vary greatly, and their views of systems can fluctuate depending on their age and gender. It is critical to comprehend users' perspectives based on their gender, age, background, and culture (Prayaq, 2019). (Sharif & Al-Kandari, 2010), for example, researched the reasons why females in the Arab GCC countries use online bulletins and discovered that they utilize them for self-expression. Females stated that internet communications enable them to participate more, ask questions, and discuss issues that they would not be able to ask or discuss in traditional social settings. The authors portrayed these motivations in the context of the constraining conservative cultural contexts.

3. Methodology: The research methodology is described in this section, which includes the research sample and research instrument. This study used a quantitative approach in which an online questionnaire was distributed to the entire study population.

3.1 Research Sample: This study included 309 participants (187 male and 122 female instructors) from The Public Authority for Applied Education and Training (PAAET) in Kuwait. Table 1 presents the demographic data and sample distribution of the study population (gender, IT competency, and teaching experience).

Table 1: Sample distribution according to the demographic variables

Variables		*Frequency (F)*	*Percent %*
Gender	Male	187	60.5
	Female	122	39.5
IT Competency	Little	15	4.9
	Average	99	32.0
	High	195	63.1
Teaching Experience	Less than 10 years	57	18.4
	10 years to 20 years	89	28.8
	More than 20 years	163	52.8

3.2 Research Instrument: This research used a quantitative approach in means of a survey. The items in the questionnaire reflect the specific nature of PAAET instructors. The final version of the questionnaire used in this study consists of two parts. The questionnaire was specifically designed for this research with the aim of eliciting opinions from participants and examining both problems and opportunities in PAAET' current e-learning processes. Part 1 collects participants' demographic data, including gender, professional experience, and IT competency, Part 2 investigates instructors (male and female) perceptions of online learning at PAAET. Answers use a 5-point Likert-type scale, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. A pilot study was carried out on all research instruments to ensure the questionnaire meets its intended aims, assess the feasibility of the survey, and verify initial results. The data collected from the questionnaires were statistically analyzed in which several statistical methods were used, including frequency, percentage, mean, standard deviation (SD), and an independent ample t-test. The independent-sample t-test is carried out to detect any statistically significant difference between means in two independent variables (in this case, male and female instructors). In addition, SPSS was used to calculate the correlation coefficients. The correlations between the individual dimensions and the overall score were high ($p < 0.01$) and ranged from 0.805 to 0.902, which indicates high internal reliability and construction integrity. Similarly, the reliability of the questionnaire has been calculated by finding Cronbach's alpha by using SPSS. The total score of Cronbach's Alpha is (0.94). So, the questionnaire can be generalized to the basic study sample, and the results can be trusted.

4. Results and Discussions:

4.1 Instructors' Perceptions of Online Learning: Table 2 shows the results obtained from the preliminary analysis to reflect instructors' perceptions of online learning. Instructors' responses were statistically analyzed using frequency, mean, standard deviation (SD), and t-test. Among the 15 items presented in Table 2, each item's mean value is higher than 3.0, which indicates that instructors have positive perceptions about online and virtual learning at CBS. Item 9 got the first rank with an average mean value of 4.61, which demonstrates that instructors agree that teaching online has reduced the use of paper and photocopying. Also, item 15, "I prefer teaching in the classroom while getting the benefit of e-learning platforms and tools" got the second rank with an average mean value of 4.50. one participant stated that the combination of physical education and taking advantage of the features of online learning platforms is valuable. Another stated that "e-learning platforms serve as an aid to physical classroom education and not a substitute for it". Another said, "I see that blended learning helps to achieve the goals of modern education". Item 14 "Students cheat to a large extent through online learning" comes third with an average mean value of 4.40. A faculty member stated that "teaching online is exciting, however, many students of CBS are not prepared for online learning, and cheating spreads easily in exams using MS-Teams platform and the grades do not reflect the level of students". He added, "I agree to use the online learning platforms as a

teaching tool, but I refuse to use it to conduct exams". There is a widespread perception in the area that online learning encourages misconduct and makes cheating easier. However, with new technology, (Meilleur 2018) listed some tools and techniques that discourage cheating in online examinations. Question 1 "E-learning tools facilitate managing and correcting exams and tests" comes in fourth with an average mean value of 4.30. An instructor stated that the platform is excellent for exams, excellent for submitting assignments online, and excellent as a means of communication between professors and students. Another stated that "With the online education experience, we must renew the concept of returning to normal life and attendance education. We must benefit from this experience by integrating technology into the physical learning in the classroom through blended learning". Question number 11, "I was well trained to use the e-learning platform", ranked 7 with an average mean value of 3.90. One comment from an instructor stated that in the event that we want to implement e-learning in our educational institutions, there must be a holistic view to benefit from all the electronic services available in the virtual learning platforms and their use should not be limited to teaching only.

Table 2: Gender Differences in Instructors' Perceptions of Online Learning (Frequency)

N.	Question	Gender	Freq.	Mean	SD	t	t-test Sig. (2
Q1	E-learning tools facilitate managing and correcting exams and tests	male	187	4.21	0.999	-1.899	0.06
		female	122	4.43	0.899		
Q2	Teaching through e-learning platforms is exciting	male	187	3.48	1.224	0.917-	0.36
		female	122	3.61	1.223		
Q3	e-learning platform motivates students to learn	male	187	2.95	1.211	-1.194	0.23
		female	122	3.12	1.263		
Q4	e-learning platform has increased the quality of teaching practices	male	187	3.21	1.247	-2.361	0.02
		female	122	3.56	1.253		
Q5	e-learning platform helped increase the interaction between instructors and	male	187	2.98	1.261	-1.962	0.05
		female	122	3.28	1.392		
Q6	Teaching through an e-learning platform saves my time and effort	male	187	4.01	1.037	-0.380	0.70
		female	122	4.06	1.086		
Q7	Educational electronic materials are available for my courses	male	187	3.76	1.046	-1.408	0.16
		female	122	3.93	1.018		
Q8	Students get high grades through e-learning	male	187	4.09	0.860	-2.117	0.04
		female	122	3.86	1.039		
Q9	Teaching online has reduced the use of photocopying	male	187	4.56	0.696	-1.604	0.11
		female	122	4.69	0.657		
Q10	E-learning help students to be well-prepared for the labor market	male	187	3.27	1.216	-2.144	0.03
		female	122	3.57	1.192		
Q11	I was well-trained to use the e-learning platform	male	187	3.74	0.904	-3.858	0.00
		female	122	4.15	0.924		
Q12	I see a need to provide incentives for instructors who use e-learning platforms	male	187	3.32	1.321	-2.550	0.01
		female	122	3.70	1.251		
Q13	Technical support is available to solve my problems with the e-learning	male	187	3.53	0.918	-0.418	0.42
		female	122	3.62	1.086		
Q14	Students cheat to a large extent through online learning	male	187	4.39	0.850	-0.192	0.85
		female	122	4.41	0.898		
Q15	I prefer teaching in the classroom while getting the benefit of e-learning	male	187	4.41	0.846	-2.733	0.01
		female	122	4.66	0.678		

The lowest mean value is in item 3 with an average mean value of 3.02, this implies that the instructors moderately believe that online learning motivates the students to learn. The fifth question, “e-learning platform helped increase the interaction between instructors and students,” ranked 14, with an average mean value of 3.10. One comment from an instructor “E-learning loses the sense of interaction between the instructors and the students, and loses the sense of body language between them”. However, (Azlim, Husain, Hussin, & Zulisman, 2014) stated that students and instructors have the flexibility to collaborate through LMS, allowing better collaboration and interaction (Emelyanova & Voronina, 2014). Similarly, item 4 “e-learning platform has increased the quality of teaching practices” ranked 13 with an average mean of 3.35, this is supported by (Daniels, Jacobsen, Varnhagen, & Friesen, 2013), who stated that Online learning itself is not the optimal solution for student engagement in teaching and learning stressing that instructors play an important part in inspiring learners to take advantage the features to increase the quality of online learning practices. Item 10 “E-learning help students to be well prepared for the labor market” ranked 12 with an average mean value of 3.39. Question number 12 “I see a need to provide incentives for instructors who use e-learning platforms” ranked 11 with an average mean value of 3.47. As for motivation, one suggested, “I suggest honouring the professors who excelled in their performance and teaching through e-learning platforms”. Also, motivation was identified as a critical factor in achieving a successful online learning environment (Hartnett 2016). Question 3 reflects respondents' opinions, which imply that instructors do not feel confident that their institutions encourage or motivate the use of e-learning. Item 10 “Teaching through the e-learning platforms is exciting” ranked 10. In regard to technical support, item 13 “Technical support is available to solve my problems with the e-learning platform” rank 9 with an average mean value of 3.57. The study (Alenezi, 2018) concluded that preparing instructors for online teaching is a real challenge. Similarly, (Smith & Abouammoh, 2013) claimed that the significant challenges of LMSs in Saudi Arabian institutions are a lack of or insufficient training and support, infrastructure weakness in the institutions, and a lack of proper technical support.

4.2 Gender Differences: This research documented that there is a significant difference between male and female, demonstrated in 5 items of the questionnaire as indicated in table 2. Item 4 “e-learning platform has increased the quality of teaching practices” shows significant differences between males’ and females “level of significance” ($p=0.02$), in favor of females (t-test) $p < 0.05$. In addition, item 8 “Students get high grades through e-learning” indicates significant differences between males’ and females “level of significance” ($p=0.04$), in favor of males (t-test) $p < 0.05$. Similarly, item 11 “I was well trained to use the e-learning platform” shows significant differences between males and females “level of significance” ($p=0.00$), in favor of females (t-test) $p < 0.05$. Item 12 “I see a need to provide incentives for instructors who use e-learning platforms” also shows significant differences between males and females “level of significance” ($p=0.01$), in favor of females (t-test) $p < 0.05$. While item 15 “I prefer teaching in the classroom while getting the benefit of e-learning platforms and tools” shows significant differences between males and females “level of significance” ($p=0.01$), in favor of females (t-test) $p < 0.05$. As discussed in this section, female instructors may interpret online learning challenges differently than males. The variations between people, which might be influenced by gender, may influence how instructors use online platforms. Instructor perceptions fluctuate depending on user variables such as personality, cognitive styles, gender, age, and prior knowledge, all of which can influence users' perceptions and attitudes about technology (Alhajri, Alhunaiyyan, & AlMousa, 2017). Due to societal conventions, the use of technology in teaching and learning may differ between male and female instructors. In view of their collectivist cultural setting, it would be expected that Kuwaiti males and females would utilize online applications primarily as a social link, especially because the Kuwaiti educational system is gender-segregated.

5. Conclusion: Organizations face crises such as the ongoing Covid-19 pandemic, during which educational institutions at all levels have had to shift to e-learning. Numerous educational institutions use online education to foster a collaborative learning environment. This research investigates instructors’ perceptions of online and virtual

learning systems focusing on gender differences in the perception of online and virtual learning and learning management system, a key platform in the operation of any contemporary academic institution, by analyzing instructors' perceptions from PAAET. Using a quantitative methodology, a questionnaire was administered to 309 faculty members from PAAET. Findings obtained from the questionnaire indicated that instructors were generally comfortable and had positive perceptions about online learning. The study also pointed to some challenges and barriers to overcoming the proper implementation of online learning platforms such as poor helpdesks, lack of training, fewer management motivations, and limited electronic educational materials were recorded. These should be studied to ensure that PAAET will adopt a system to improve the learning process and academic performance. This study highlighted gender differences and found significant differences in the perceptions of online learning in favor of females. In addition, cultural and social factors play a crucial influence in the acceptance and adoption of online learning. Over time, instructors who had been averse to adopting technology in the classroom will become more receptive to their newest teaching approaches. In light of this, the institution should assist in training and motivating its faculty to promote the use of online instruction in order to succeed in their courses.

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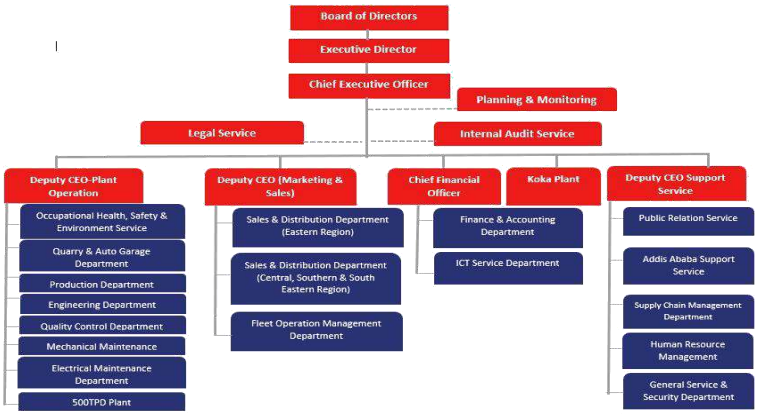
Leadership Performance in an Organization

Lukman Olamilekun Wahab
Business Administration, Al Azhar University, Cairo, Egypt

Introduction: The main objective of this research is to investigate if a specific type of CEO's leadership is related to the performance of the employees, using a case study related to CEO's Dangote group Organization, as is the case of Aliko Dangote. The study also described both leadership qualities and performance in service sector of good leadership qualities. Keywords: Organizational Performance relationship, Rewards for performances, Culture and Leadership Qualities. Leadership Concept of Dangote group Organization. The leadership Concept of Dangote group Organization is the process of influencing the behavior of other to work willingly and enthusiastically for achieving predetermined goals.



Leadership Behaviors: Be open and honest. The best leaders are open and honest with their team members. Lead by example. Effective delegating is a necessary skill for managers to have and leading by example is also key. Have confidence. Encourage feedback. Provide evidence. Be self-analytical. Promote successes. Embrace change.

Types Of Leadership Behaviors: I) Task-focused: Task behavior is when your actions are centered on the task - the job that needs to be done. ii)Relationship-focused behaviors: Relationship behavior is when your actions are more centered towards relationships with your people.

Leadership Styles: Delegative Leadership: a delegative leadership style focuses on delegating initiative to team members. This can be a successful strategy if team members are competent, take responsibility and prefer engaging in individual work and it also no as laissez-faire leadership.

Organizational Performance: Organizational performance involves comparing a company's actual output with what it intended its output to be, i.e., its goals and objectives.

Research Methodology: This chapter examines the various sources of data used in the research, the designed population study, sample size, techniques used, instruments and method of data analysis.

Objectives and Research Hypothesis: The main goal of this research is to investigate if a specific type of CEO's leadership is related to the performance of the employees, using a case study related to CEO's Dangote group Organization. Therefore, this research intends to answer the following research questions: 1. How does leadership style positively and significantly affect job performance? 2. How does leadership practice positively and significantly related to job performance? Considering the previous literature review, the present work was conducted to investigate how leadership practices affect organization job performance using qualitative data (questionnaires) and in-depth interviews. Sample, Sources and Data Collection Methods. It was not possible to administer

questionnaires to all staff rather a combination of stratified random sampling with multi -stage cluster sampled was used. Stratified random sampling was used to ensure that the selection cut across all categories of staff. Multi-stage sampling was also used to ensure that the research cut across the zones and some of the institute branches within the state. The data collection method used in this study involved two sources: the primary and secondary sources. The primary sources include the information obtained from the administration and a survey by questionnaire. The secondary source was based on information from relevant literature, textbooks, journals and academy of management reviews on leadership style on employee performance.

Data Analysis Method: The data collected through the questionnaire presented in tabular form. The data gathered from the questionnaire were analyzed and presented in frequency and percentage tables. The data were also interpreted, and the chi square statistical test was used to test the stated hypotheses.

Conclusion And Recommendations: The important purpose of the studies is to seek out the effect of management conduct on a firm's enterprise growth. The case employer in the studies became Dangote Group. An interview with the CEO of Dangote Group became carried out. There are over 30,000 employs performing at Dangote Group in Nigeria, 29 professionals the survey questionnaire way to covid 19. The studies became accomplished to test how the firm grows toward achievement and achieves objectives with the help of management behaviors and differing sorts of management behaviors have been discussed. Thanks For Listen and Any Question?

Impact of Accreditation on Higher Education institutions in India

Dr. Apoorva Prashant Hiray
Professor, Mahatma Gandhi Vidyamandir's Institute of Management & Research, Nashik, MS India

Dr. V. S. More
K.B.H. Dental College and Hospital, Panchavati, Nashik, MS, India

The spread of accreditation is a recent phenomenon in India and is gradually reshaping the competitive environment of higher education. As a result, it is essential to understand the impact of accreditation on Indian higher education institutions. Accreditation is an important barometer of quality in higher education and should be the first step in ensuring quality in the education system. The UGC is considering a number of reforms in higher education in the country, including the introduction of mandatory accreditation for institutions seeking funding and the National Assessment and Accreditation Council for technical programs. The UGC is also considering the creation of additional accreditation agencies, including the National Board of Accreditation. Accreditation can provide transparency and reliability. Moreover, it should involve academia in the process. The NAAC has suggested that 2% of the higher education budget be allocated to quality improvement schemes. The use of incentives should also be considered. These strategies will give additional impetus to the accreditation process. However, there is a long way to go in improving the quality of higher education institutions in India.

Keywords: Educational Institutions, accreditation, NAAC, higher education institutions, quality check, benchmark.

INTRODUCTION: The process of accreditation has a huge impact on the quality of higher education in India. It has led to major changes in all aspects of higher education. Many good practices found a formalized basis and institutions adopted more progressive initiatives. The process has also resulted in strengthening extension activities and grievance redressal mechanisms. Many institutions have internal quality assurance cells. These changes have influenced the attitude and functioning of higher education institutions. These changes are due to the commitment of the management towards quality (Ricardo Faria & Mixon Jr., 2022). The process of accreditation is an effective

way to ensure the quality of higher education in India. It offers an informed and transparent evaluation of an institution, which helps students migrate between universities. Moreover, accreditation allows the institution to meet standards set by other agencies. It also ensures a common frame of reference for students. It also helps them to make improvements in their programs. However, it is important to remember that the entire process is costly, and requires resources (Atul Kumar, 12 April 2022). Accreditation requires a thorough documentation process. The process begins at least three years in advance. The institute or university must assign a team or person to oversee the process. Once the accreditation process is complete, the institute or university is granted institutional accreditation. This accreditation helps students determine whether or not an institute is acceptable for program enrollment. The National Assessment and Accreditation Council (NAAC) is an independent organization that accredits higher education institutions in India. NAAC is comprised of university vice-chancellors, experts in higher education, and others who conduct assessments of educational institutions. The team assesses institutes on several parameters and awards a cumulative grade. Those with a score of three or more are accredited. The process of accreditation differs according to the type of institution. It can be departmental or institution-wide. The former requires that representatives of the college be present at the main campus during the accreditation process. The latter requires that the institution has an established relationship with a government agency and has faculty and students that are full-time. In addition, the institution must also offer research programs within the course curriculum (Sangeeta Aroa, 22 November 2021) (Sarker & Akujuobi, 2021, December). The assessment process is undertaken prior to the beginning of academic programs. Accreditation, on the other hand, takes place after the institution reaches certain years of existence and has passed out two batches. Generally, two major accreditation bodies in India accredit general colleges and technical colleges. Accreditation is an important part of the educational process because it sets benchmarks for learning. It promotes accountability and public trust in the institution. Accredited institutions also create a safer environment for students and parents, since they know that their educational program has been vetted and has passed stringent quality measures. Accreditation of higher education institutions is crucial for the credibility of the degree earned by graduates. It ensures the quality of services provided by the institution to external organizations. Accreditation is mandatory for all universities and higher learning institutes in India, except those created through an Act of Parliament (Kumar, Parvesh; Singhal, Sandeep; Kansal, Jimmy, 2 November 2022). • Scope of the accreditation process: The accreditation process is a barometer of the quality of higher education in India. The process has been a relatively recent development, but it is slowly reshaping the competitive environment of higher education in the country. The process is conducted at the departmental and institution level. The process is designed to assess the quality of teaching and learning within an institution. Higher education institutions are assessed and graded based on the criteria of the NAAC. The criteria vary depending on the unit of accreditation. The University Central Governance Structure, all the departments of studies, and the school or center are all subject areas that are assessed and graded. If an institute is deemed not to meet the criteria for accreditation, it will be granted temporary status in order to meet compliance requirements (Jerald Ozee Fernandes, 30 July 2021). The process is designed to evaluate the quality of education provided and the standards of excellence. Accreditation helps the institution identify its strengths and weaknesses. Without this process, an institution may not be aware of its core strengths and identify areas for improvement. For example, it may have high rankings in student services or teaching-learning processes. Knowing where it falls short can help the institution make changes to improve its overall performance and provide its students with better educational opportunities. Once the institution has been accredited by NAAC, it will undergo periodic review. During this time, the institute may need to implement various quality improvement measures. If the institution fails to meet these standards, NAAC will require a reassessment. In this case, the institution must meet certain conditions, such as having completed at least two batches of graduates (Cossani, Codoceo, Cáceres, & Tabiloa, June 2022). Accreditation is an important tool for higher education institutions in India. It helps ensure that they are meeting the highest standards

possible and that the curriculum and examination format are aligned with the requirements of the National Accreditation Board. It is also important to ensure that all institutions comply with the requirements set forth by the various education boards. Higher education in India includes universities and colleges that offer formal education and non-formal education. Most of these institutions are affiliated with state Universities, which is the primary academic arrangement in the higher education system in India (Phad & Sonkamble, Jul-Sep 2022) (João Ricardo Faria, 2022).

REVIEW OF LITERATURE:

NAAC (NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL) The impact of NAAC accreditation on higher education institutions in the country can be felt in many ways. Firstly, the accreditation process triggers quality initiatives and changes in HEIs. These changes have direct bearing on the quality of education provided by these institutions. Secondly, the process ensures that the re-accreditation of these institutions takes the quality initiatives that were promoted during the first assessment into account. Third, NAAC accreditation encourages institutions to improve their teaching and learning processes. This enables them to move beyond the examination-oriented outcomes. These changes include improved teaching methods, such as the use of educational technology, student seminars, and the provision of computer skills. They also require the creation of institutional distinctiveness. Additionally, they require institutions to adopt green campus initiatives such as solar energy utilization and workflow automation. Further, they must focus on community adoption and village-level social work. Lastly, they should incorporate innovative teaching methods and a strong mentor-mentor system. The government of India introduced the revised accreditation framework in 2017 and it came into effect in 2018. Currently, 74 universities and 1,485 colleges have been accredited by NAAC, while 600 institutions remain unaccredited. These findings highlight the importance of accreditation in higher education in India. As a result, HRD ministry officials point out that NAAC accreditation can help institutions guide students and ensure that they have access to top universities abroad (K, Samanta, & Rath, 0221). Function of National Assessment and Accreditation Council The assessment and accreditation process of a college or university is carried out by NAAC. The assessment process is based on international best practices and the experience of academicians. The council identifies factors such as infrastructure, facilities and performance of teachers to give a grade to the institution. It works closely with other stakeholders to help institutions improve their quality. Accredited institutions undergo periodic reassessments. Institutions may be upgraded from provisional to full accreditation if they have improved their quality over time. These upgrades depend on the performance of the institution and recommendations from NAAC during assessment visits. Institutions that are reassessed must meet strict standards to maintain their accreditation. The NAAC's main role is to assess the quality of higher education in India. It uses a rigorous methodology and a common set of core values to evaluate the institutions. Among its functions are the development of appropriate accreditation instruments, identifying qualified assessors, conducting on-site inspections, and organizing seminars.The NAAC was established as a result of recommendations from the National Policy on Education in 1986. It sought to address the issues of declining education quality in India. The NAAC's Programme of Action (POA) was published in 1992. It was headquartered in Bengaluru, India. It recently published a list of higher education institutions with valid accreditation for the year 2020 (K, Samanta, & Rath, 0221). The National Board of Accreditation - The National Board of Accreditation is one of the two major accreditation bodies in India. The other is the National Assessment and Accreditation Council. These accreditation bodies work together to ensure the quality of higher education. These bodies accredit educational institutions based on their requirements and are widely recognized. They also help individuals obtain professional qualifications, such as teaching assistant and teacher certification. The National Board of Accreditation was founded by the All-India Council for Technical Education (AICTE) in 1987. Its main objective is to evaluate technical educational institutions based on quality standards and outcomes. The board works with various educational institutions approved by AICTE to assess their teaching and learning practices. It has

a number of criteria to assess quality and has a standard procedure for self-assessment (P. S. Mayurappriyan, 2021). The National Board of Accreditation evaluates institutes and programs periodically. It has an in-depth and comprehensive process, evaluating the quality of teaching and learning, infrastructure facilities, and support services. The process is also geared towards improving student learning outcomes. Accredited institutions are able to increase student enrollment and graduate student employability. The National Board of Accreditation has standards for teaching, which require that teachers submit materials to be evaluated. The National Board also offers webinars to provide information for educators, as well as fee assistance and incentives in their area (Rudd, 07 February 2022). Higher education in India is plagued by insufficient funding and excessive bureaucracy. Though most institutions are under the supervision of a university or a government body, the lack of funding and bureaucracy are both the main causes of lower quality in the sector. As a result, many institutions lack the resources to effectively regulate themselves.Despite these reforms, the quality of higher education remains a key issue. The UGC's National Policy on Education and its Programme of Action urged for the establishment of an independent agency to assess the quality of institutions. In 1994, the UGC established the National Assessment and Accreditation Council. The NAAC's mission is to assess higher education institutions and determine whether they meet minimum standards (Kalita, 2022). In addition to the UGC-accredited institutions, private institutions have also increased significantly in India. Today, nearly seventy percent of the country's colleges and universities are private. While this trend has increased capacity in Indian higher education, the quality of private institutions is uneven. Recently, the All-India Council for Technical Education approved a moratorium on the creation of new engineering colleges (Phukan, 2022). Function of the National Board of Accreditations - Currently, the National Board of Accreditations oversees the accreditation of colleges and technical institutes in India. Its primary objective is to provide quality assurance by examining the teaching methods used by organizations. Its mission is to ensure the competence and quality of engineering and technical programs. The National Board of Accreditations was established in 1994 by the All-India Council of Technical Education. There are various types of accreditations. Some are specialized and apply to only a single program or department within an institution. Others may accredit freestanding institutions of higher education. In either case, the specialized agency will designate the scope of its accrediting activities. The accreditation process is a voluntary, outcome-based process that aims to improve the quality of technical programs and institutions. It is based on peer and self-assessment. The process is repeated every five to ten years to ensure the quality of accredited programs. Accrediting bodies are voluntary membership organizations that monitor the academic and administrative quality of their members. NBA accreditation is important because it helps institutions know their strengths and weaknesses and helps them improve their programs. Accreditation also allows these institutions to attract more students and boost their reputation. Most Indian universities and technical institutes have been accredited by the NBA for at least one course or programme (Narendra Kohli, 2015).

CONCLUSION: Accreditation has impacted almost every aspect of higher education in India. It has prompted institutions to undertake initiatives beyond the mandatory requirements of the affiliating system. Accreditation is a process that helps institutions measure the quality of their teaching and learning processes. It includes the infrastructure, human resources, curricula, and admission procedures, as well as governance structures. Higher education institutions can become accredited by a nationally recognized body. The government has appointed the National Assessment and Accreditation Council (NAAC), which accredits universities and colleges. Its work spans across various sectors. Despite its widespread use, accreditation for higher education institutions in India is still a relatively new practice. The growth of accreditation for higher education institutions is being attributed in large part to recent reforms in the country. This trend is slowly reshaping the competitive environment in higher education in India.

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Smart Class Room Attendance Using Facial Recognition and Lot

Dr. R. Sujatha

Associate Professor, School of Electronics Engineering, VIT University, Vellore, India

Abstract: This project presents an automated system for human face recognition in real-time for colleges and Universities to mark the attendance of their students. So Smart Attendance using Real Time Face Recognition is a real-world solution which comes with day-to-day activities of handling students. The manual task of marking attendance is too tedious and much time consuming. Using Face recognition on an edge device with limited computing power is still a challenge. To detect real time human face, Haar Cascade is used and SVM algorithm is

used to recognize the faces detected with a high accuracy rate. The matched face is then used to mark attendance in a text file, which will be sent to respective faculty via email (using SMTP protocol). This product gives much more solutions with accurate results in user interactive manner rather than existing attendance and leave management systems. Even biometric attendance requires students to form a line and wait for their turn to give attendance which again disrupts the decorum of the class. So, if in some case if the attendance can be taken when the student in entering the class itself, then we can achieve more efficiency in the class. The system is tested for various use cases. We consider a specific area such as classroom attendance for the purpose of testing the accuracy of the system. The metric considered is the percentage of the recognized faces per total number of tested faces of the same person. The system is tested under varying lighting conditions, various facial expressions, presence of partial faces (in densely populated classrooms) and presence or absence of beard and spectacles. An increased accuracy (nearly 100%) is obtained in most of the cases considered.

Introduction: Technology is used everywhere is automate and fasten the existing process. So, we noticed college faculty members struggling to mark attendance and also this period of time gets wasted. So, we thought to implement a simple and elegant solution for automating the attendance process and reduce the time invested for taking attendance. By this every faculty will be able to teach for a couple of minutes more. Our hi-tech world has brought to us so many machineries which made our lives quite easy. Amongst these equipment, one popular technology is biometric attendance system and the face recognition attendance system is one of them. This advanced face recognition attendance biometric system enrolls the unique and permanent facial fine points of employees and records them in the database as stencils. Once the enrollment process is complete, you just need to look at the camera to verify your identity and the face recognition attendance system automatically marks your attendance on your behalf. Face recognition attendance system is an accurate technology for managing attendance as it hardly gives errors. The goal of the project is to build an independent and automated attendance system which provides teachers with a time saving solution for the taking attendance. As experienced daily in the classrooms that attendance can usually take up to ten minutes of the lecture time and often is extended to the time in between classes, which in turn results in students getting late for their other classes. If we can come up with a solution to automate a process, while the class is the going on, then time saving can be established. Even biometric attendance requires students to form a line and wait for their turn to give attendance which again disrupts the decorum of the class. So, if in some case if the attendance can be taken when the student in entering the class itself, then we can achieve more efficiency in the class.

Literature Survey:

S.NO	AUTHOR	YEAR	METHODOLOGY
1	Yousra Ben Jemaa and Sana Khanfir	2009	“Automatic local Gabor features extraction for face recognition” that Face is represented with its own Gabor coefficients expressed at the fiducial points (points of eyes, mouth and nose). The first is composed of geometrical distances automatically extracted between the fiducial points. The second is composed of the responses of Gabor wavelets applied in the fiducial points and the third is composed of the combined information between the previous vectors.

2	Hossein Sahoolizadeh	2008	Proposed a new hybrid method of Gabor wavelet faces using extended NFS classifier in “Face Detection using Gabor Wavelets and Neural Networks”. Down sampled Gabor wavelets transform of face images as features for face recognition in subspace approach is superior to pixel value approach.
3	Fatma	2008	“Comparison between Haarand Daubechies Wavelet Transformations on FPGA Technology” that the Daubechies wavelet is more complicated than the Haar wavelet. Daubechies wavelets are continuous; thus, they are more computationally expensive to use than the Haar wavelet. This wavelet type has balanced frequency Responses but non-linear phase responses. Daubechies wavelets use overlapping windows, so the high frequency coefficient spectrum reflects all high frequency changes.
4	Alaa Eleyar and Hasan Demiral	2007	proposed PCA and LDA based Neural Network for Human Face Recognition. Lekshmi and Sasikumar (2009) have analysed both the Global and Local Information for Facial Expression Recognition.
5	Vonesch	2005	illustrated the flexibility of the proposed design method in “Generalized bi-orthogonal Daubechies wavelets”. Most importantly, it is possible to incorporate a priori knowledge on the characteristics of the signals to be analyzed into the approximation spaces, via the exponential parameters.
6	Sushmita Mitra and Sankar	2005	explained that Fuzzy sets are well-suited to modeling different forms of uncertainties and ambiguities, often encountered in real life in “Fuzzy sets in pattern recognition and machine intelligence”. Fuzzy set theory is the oldest and most widely reported component of present-day soft computing, which deals with the design of flexible information processing systems.

7	Smach	2005	implemented a classifier based on neural networks MLP (Multi-layer Perception) for face detection in "Design of a Neural Networks Classifier for Face Detection". The MLP is used to classify face and non-face patterns. Then a Hardware implementation is achieved using VHDL based Methodology. The system was implemented in VHDL and synthesized using Leonardo synthesis tool. The model's robustness has been obtained with a back propagation learning algorithms.
8	Keun-Chang Kwak	2007	employed Fisher based Fuzzy Integral and Wavelet Decomposition methods for face recognition in the University of Alberta Shiguang Shan et al (2004) dealt with the Gabor Wavelet for Face Recognition from the angle of its robustness to mis-alignment.
9	Dmitry Bryliuk and Valery Starovoitov	2002	"Access Control by Face Recognition Using Neural Networks" have considered a Multilayer Perceptrons Neural Network (NN) for access control based on face image recognition. The robustness of NN classifiers with respect to the False Acceptance and False Rejection errors is studied. A new thresholding approach for rejection of unauthorized persons is proposed.

Table 1: literature survey about project from past few years

Acknowledgement:

Hardware and software used Raspberry Pi - Raspberry Pi is a credit card-sized computer powered by the Broadcom BCM2835 System-on- chip (SoC). This SoC includes a 32-bit ARM1176JZFS processor clocked at 700mhz, and Video core IV GPU. It also has 256MB of RAM in a POP package above the SoC. The Raspberry Pi is powered by a 5V micro-USB AC charger.

Components on board:

***1.* ARM CPU/GPU** -- This is a Broadcom BCM2835 System on a Chip (SoC) that's made up of an ARM central processing unit (CPU) and a Videocore 4 graphics processing unit (GPU). The CPU handles all the computations that make a computer work (taking input, doing calculations and producing output), and the GPU handles graphics output.

2. GPIO -- These are exposed general-purpose input/output connection points that will allow the real hardware hobbyists the opportunity to tinker.

3. RCA -- An RCA jack allows connection of analog TVs and other similar output devices.

4. Audio out -- This is a standard 3.55-millimeter jack for connection of audio output devices such as headphones or speakers. There is no audio in.

5. LEDs -- Light-emitting diodes, for all of your indicator light needs.

6. USB -- This is a common connection port for peripheral devices of all types (including your mouse and keyboard). Model A has one, and Model B has two. You can use a USB hub to expand the number of ports or plug your mouse into your keyboard if it has its own USB port.

Acknowledgements:

1. HDMI -- This connector allows you to hook up a high-definition television or other compatible device using an HDMI cable.

2. Power -- This is a 5v Micro USB power connector into which you can plug your compatible power supply.
3. SD cardslot -- This is a full-sized SD card slot. An SD card with an operating system (OS) installed is required for booting the device. They are available for purchase from the manufacturers, but you can also download an OS and save it to the card yourself if you have a Linux machine and the wherewithal.
4. Ethernet -- This connector allows for wired network access and is only available on the Model B.

Figure 1(a):- ***Raspberry Pi 3***

figure 1(b):- ***Raspberry Pi Camera***

Raspberry pi Camera: ***Hardware specifications:***

Size	Around 25 × 24 × 9 mm
Still resolution	5 Megapixels
Video modes	1080p30, 720p60 and 640 × 480p60/90
Sensor resolution	2592 × 1944 pixels
Sensor image area	3.76 × 2.74 mm
Pixel size	1.4 µm × 1.4 µm
Sensitivity	680 mV/lux-sec

Table 2: - about pi camera

Software specifications:

Picture formats	JPEG (accelerated), JPEG + RAW, GIF, BMP, PNG, YUV420, RGB888
Video formats	raw h.264 (accelerated)
Triggers	Keypress, UNIX signal, timeout

Table 3: - software specifications

Proposed work - This project presents an automated system for human face recognition in real-time for colleges and Universities to mark the attendance of their students. So Smart Attendance using Real Time Face Recognition is a real-world solution which comes with day-to-day activities of handling students. The manual task of marking attendance is too tedious and much time consuming. Using Face recognition on an edge device with limited computing power is still a challenge. To detect real time human face, Haar Cascade is used and SVM algorithm is used to recognize the faces detected with a high accuracy rate. The matched face is then used to mark attendance

in a text file, which will be sent to respective faculty via email (using SMTP protocol). This product gives much more solutions with accurate results in user interactive manner rather than existing attendance and leave management systems.

DESIGN APPROACH AND DETAILS

Block diagram –

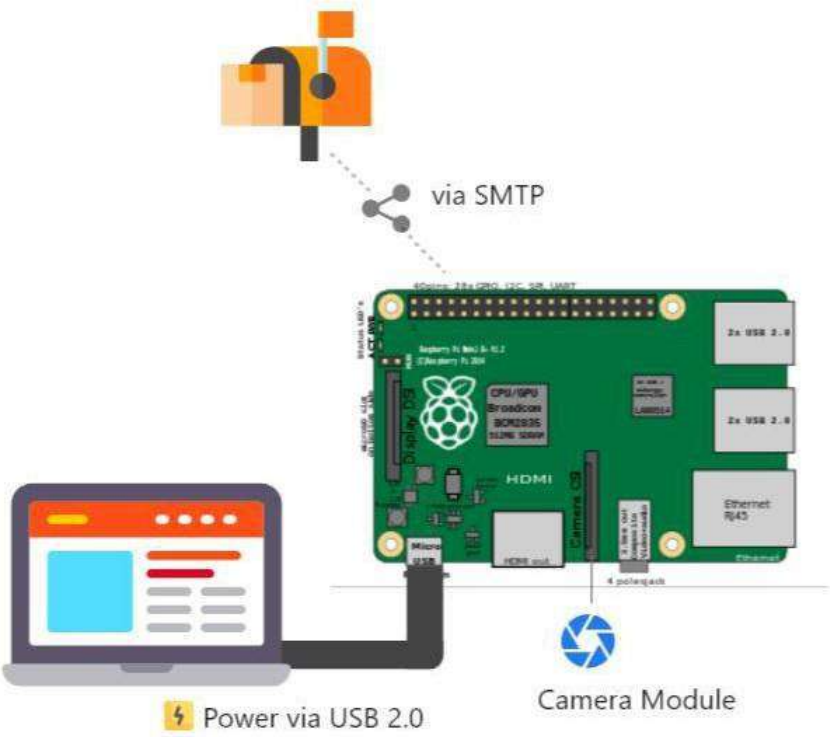


Figure 2: block diagram

Laptop – Raspberry Pi Interface – Via Ethernet cable (Data Transfer) Via USB 2.0 cable (Power Transfer) Raspberry **Pi – Pi Camera Interface -** Via Camera port Protocol **Interface –** SMTP (Simple Mail Transfer Protocol) – For sending the Attendance list as a text file NOTE – Raspberry Pi with External Monitor requires no further setup for implementing the project. Raspberry Pi without External Monitor requires IP address scanning (use ***Advance IP Scanner)***, SSH communication (Putty **SSH client)**, GUI Interface for using Raspbian OS (VNC **Server or Windows Remote Desktop)**.

Prior setup of compatible **Virtual Environment of Python** for installing all the required libraries.

UML DIAGRAM:

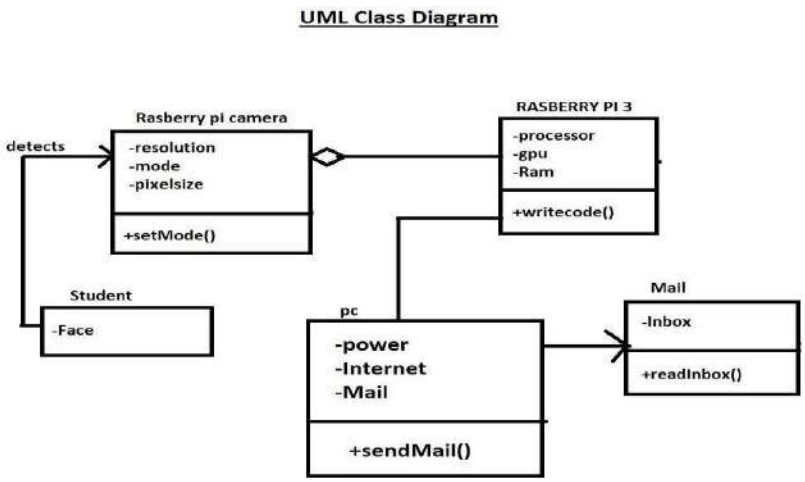


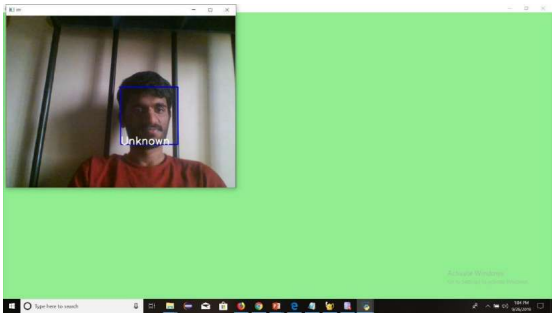
Figure 3: - UML diagram

Implementation: -

[1] Hardware part: Raspberry Pi – Raspberry Pi is a credit card-sized computer powered by the Broadcom BCM2835 System-on- chip (SoC). This SoCincludes a 32-bit ARM1176JZFS processor clocked at 700mhz, and Video core IV GPU. It also has 256MB of RAM in a POP package above the SoC.The Raspberry Pi is powered by a 5V micro-USB AC charger. Raspberry pi Camera: Size Around 25 ×24 ×9 mm Still resolution 5 Megapixels Video modes 1080p30, 720p60 and 640 ×480p60/90 Sensor resolution 2592 ×1944 pixels Sensor image area 3.76 ×2.74 mm Pixel size 1.4 µm ×1.4 µm Sensitivity 680 mV/lux-sec

[2] Hardware and software integration: Python 3.7 and its libraries: Tkinter: As with most other modern Tkbindings, Tkinteris implemented as a Python wrapper around a completeTclinterpreter embedded in the Python interpreter. Tkintercalls are translated into Tclcommands which are fed to this embedded interpreter, thus making it possible to mix Python and Tclin a single application. OpenCV (Open-Source Computer Vision Library) is released under a BSD license and hence it's free for both academic and commercial use. It has C++, Python and Java interfaces and supports Windows, Linux, Mac OS, iOS and Android. OpenCVwas designed for computational efficiency and with a strong focus on real-time applications. Written in optimized C/C++, the librarycan take advantage of multi-core processing. Enabled with OpenCL, it can take advantage of the hardware acceleration of the underlying heterogeneous compute platform. Adopted all around the world, OpenCVhas more than 47 thousand people of user community and estimated number of downloads exceeding 14 million. Usage ranges from interactive art, to mines inspection, stitching maps on the web or through advanced robotics.

Pandas - Pandas is an open-source, BSD-licensed Python library providing high-performance, easy-to-use data structures and data analysis tools for the Python programming language. Python with Pandas is used in a wide range of fields including academic and commercial domains including finance, economics, Statistics, analytics, etc.



Result: -

Figure 3(a): before registering

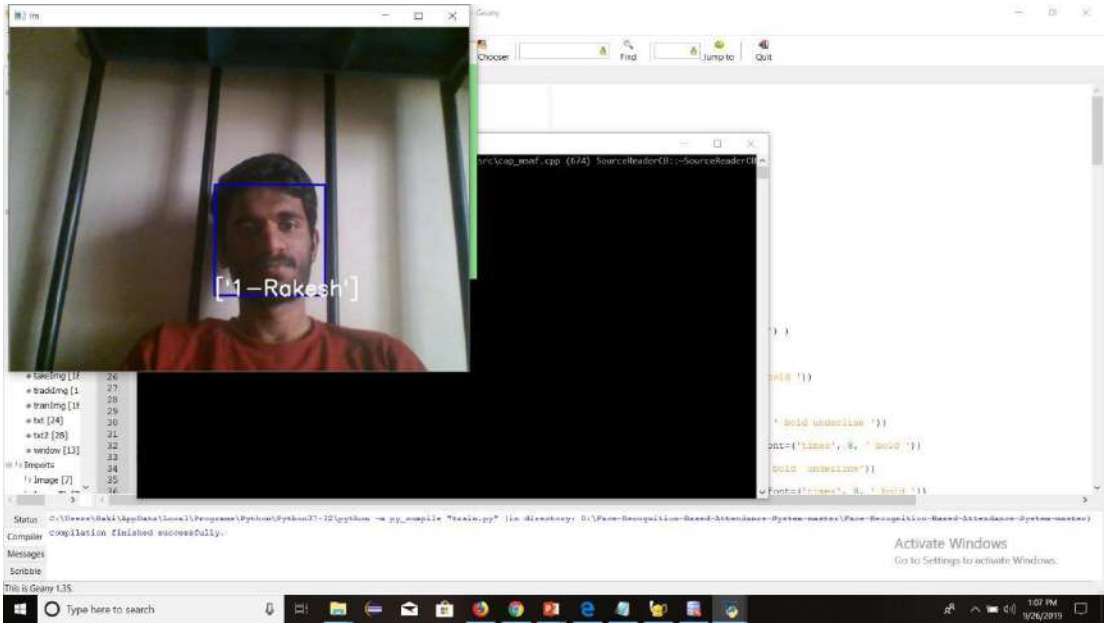


Figure 3(b): after registering

Conclusion: - By this Project the faculty can view exact date and time of attendance given by each student. The faculty can know students who is coming late. The Excel sheet will be posted into faculty mail automatically which provides teachers with a time saving solution for the taking attendance. As experienced daily in the classrooms that attendance can usually take up to ten minutes of the lecture time.

Appendices a. Appendix – sending mail

```
sender_address = 'rakeshreddy6190@gmail.com' sender_pass = 'netgear22'
receiver_address = 'rakeshreddy6190@gmail.com' message = MIMEMultipart()
message['From'] = sender_address message['To'] = receiver_address
message['Subject'] = 'A test mail sent by Python. It has an attachment.'
message.attach(MIMEText(mail_content, 'plain')) fullfilename=fileName
attach_file = open (fullfilename, 'rb') # Open the file as binary mode payload =
MIMEBase('application', 'octate-stream') payload.set_payload((attach_file).read())
```

```
encoders.encode_base64(payload) #encode the attachment
#Add payload header with filename
payload.add_header('Content-Decomposition', 'attachment', filename=fullfilename)
message.attach(payload)
    #Create SMTP session for sending the mail

session = smtplib.SMTP('smtp.gmail.com', 587) #use gmail with port session.starttls() #enable security
session.login(sender_address, sender_pass) #login with mail_id and password text =
message.as_string()
session.sendmail(sender_address, receiver_address, text) session.quit()
print ('Mail Sent')
```

a. APPENDIX 2 – TAKE IMAGES

```
Id=(txt.get()) name=(txt2.get())
if(is_number(Id) and name.isalpha()): cam = cv2.VideoCapture(0)
harcascadePath = "haarcascade_frontalface_default.xml" detector=cv2.CascadeClassifier(harcascadePath)
sampleNum=0
while (True):

ret, img = cam.read()

gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY) faces = detector.detectMultiScale(gray, 1.3, 5)
for (x,y,w,h) in faces: cv2.rectangle(img,(x,y),(x+w,y+h),(255,0,0),2) #incrementing sample number
sampleNum=sampleNum+1
#Saving the captured face in the dataset folder TrainingImage cv2.imwrite("TrainingImage\ "+name +"."+Id
+'.'+ str(sampleNum) + ".jpg",
    gray[y:y+h,x:x+w])

#Display the frame cv2.imshow('frame', img)
#Wait for 100 miliseconds

if cv2.waitKey(100) & 0xFF == ord('q'): break
# Break if the sample number is morethan 100
elif sampleNum>60: break
cam.release() cv2.destroyAllWindows()
res = "Images Saved for ID: " + Id +" Name: "+ name row = [Id, name]
with open('StudentDetails\StudentDetails.csv','a+') as csvFile: writer = csv.writer(csvFile)
writer.writerow(row) csvFile.close() message.configure(text= res)
else:

if(is_number(Id)):

res = "Enter Alphabetical Name" message.configure(text= res)
if(name.isalpha()):

res = "Enter Numeric Id" message.configure(text= res)
```

- **APPENDIX – TRAINING IMAGE**

```
recognizer = cv2.face_LBPHFaceRecognizer.create() harcascadePath =
"haarcascade_frontalface_default.xml" detector =cv2.CascadeClassifier(harcascadePath) faces,Id =
getImagesAndLabels("TrainingImage") recognizer.train(faces, np.array(Id))
recognizer.save("TrainingImageLabel\Trainner.yml") res = "Image Trained"
message.configure(text= res)
```

APPENDIX – RECOGNISING FACE

```
recognizer = cv2.face. LBPHFaceRecognizer_create()#cv2.createLBPHFaceRecognizer()
recognizer.read("TrainingImageLabel\Trainner.yml")
harcascadePath = "haarcascade_frontalface_default.xml" faceCascade =
cv2.CascadeClassifier(harcascadePath); df=pd.read_csv("StudentDetails\StudentDetails.csv") cam =
cv2.VideoCapture(0)
font = cv2.FONT_HERSHEY_SIMPLEX

col_names =  ['Id','Name','Date','Time']

attendance = pd.DataFrame(columns = col_names) while True:
 ret, im =cam.read() gray=cv2.cvtColor(im,cv2.COLOR_BGR2GRAY)
 faces=faceCascade.detectMultiScale(gray, 1.2,5) for(x,y,w,h) in faces:
cv2.rectangle(im,(x,y),(x+w,y+h),(225,0,0),2) Id, conf = recognizer.predict(gray[y:y+h,x:x+w]) if(conf < 50):
ts = time.time()

date = datetime.datetime.fromtimestamp(ts).strftime('%Y-%m-%d') timeStamp =
datetime.datetime.fromtimestamp(ts).strftime('%H:%M:%S') aa=df.loc[df['Id'] == Id]['Name'].values
tt=str (Id)+"-"+aa

attendance.loc[len(attendance)] = [Id,aa,date,timeStamp]
    else:

Id='Unknown' tt=str (Id)
    if (conf > 75): noOfFile=len(os.listdir("ImagesUnknown"))+1
    cv2.imwrite("ImagesUnknown\Image"+str(noOfFile) + ".jpg", im[y:y+h,x:x+w])
    cv2.putText(im,str(tt),(x,y+h), font, 1,(255,255,255),2)
 attendance=attendance.drop_duplicates(subset=['Id'],keep='first') cv2.imshow('im',im)
 if (cv2.waitKey(1) ==ord('q')): break
```

Hybrid Teaching Strategies: The New Normal Teaching Approach

Dr. Maria Teresa Matriano
Assistant Professor, Department of Management Studies, Middle East College

Abstract: In-person teaching has been the standard of education across the globe. However, as new technologies emerged, the way education was provided to learners changed. Schools exerted the best possible strategies just to continue the education of students by enabling hybrid teaching (Boyarsky, 2021). New terminologies in

education have surfaced in this current period, such as blended learning and hybrid teaching. Currently, educators have the opportunity to integrate technology with their teaching strategies through the help of different technologies. Integrating hybrid teaching with the ongoing educational system was also apparent during the global health crisis. One of these approaches is maximized utilization of technology through hybrid teaching. This article covers the significant aspects surrounding hybrid teaching and learning, which were put into practice by the writer from Fall 2021 till present. Despite the challenges, hybrid teaching and learning are expected to continue as part of the future educational system in Oman and other nations. Keywords: Hybrid Teaching Strategies, New Normal Teaching Approach, teaching strategies, Integrated Hybrid Teaching.

Introduction: The definition of hybrid teaching and hybrid learning is stated as the combination of distance learning and in-person teaching (Abi Raad & Odhabi, 2021). The authors also stated that one's understanding of hybrid teaching concept may depend on the person's knowledge on the evolution of distant learning. Hence, hybrid educational environment is a representation of human's pursuit of knowledge, since this concept involves the delivery of learning either through face-to-face interaction or through remote learning. In addition, it was perceived that hybrid teaching and learning is already here to stay because it creates multiple benefits which enhance the facilitation of education delivery based on the modern context. However, the article also provides some limitations and challenges related to adoption of hybrid learning. In another study, hybrid teaching was defined as a teaching approach that is engaging and relevant in today's period because hybrid educational environment involves a high level of flexibility (Raes, 2022). Although this study mentioned the separation of distant and in-person learners, the authors' way of developing a definition of hybrid teaching was done by asking a research question about whether or not the learner's physical presence still matter. Key Elements in Hybrid Teaching and Their Limitations

Audio - This ensures that the delivery of instructions must be clear and easy to understand by the students. One of the approaches that are being used in hybrid teaching is a podcast recording via MS Teams or Zoom. In the current setting of hybrid education, a podcast is one of the elements educators use to provide instructions and conduct a discussion. Oman higher education teachers use podcast, to deliver instructions to their students, especially during the height of the pandemic. According to Palenque (2016), podcasting offers various benefits such as ease to educational instructions and usability. However, this element also has some limitations regarding achieving its full potential for educational use. It was stated that hybrid teaching through audio elements would lead to the loss of audible and visual cues that are usually observable among students within the classroom setting (Raes, 2021). This issue can lead to some problems related to teachers' teaching experiences and students' learning experiences.

Video – The current hybrid teaching practice in Oman also uses the video element. Various video-conferencing platforms were used by colleges like Middle East College when conducting classes and meeting. Zoom and Microsoft Teams are among the most popular (Kamath, 2021). Thus, video conferencing supports synchronous learning because it offers real-time dissemination of instructions and also enables interaction between faculty and learners (Fitriyana et al., 2021).

Multiple Content Sharing - Multiple content sharing in hybrid teaching means faculty used the college website or platform, or in the case of Middle East College (MEC), it's the MEC Learn platform for sharing of the education-related / module related content with students. Study shows that multiple content sharing with students allows deeper learning cognition and improved teaching abilities. However, some faculty prefer to have the presence of their students inside the classroom due to possible psychological issues brought about by the lack of student interaction (Al Rawashdeh et al., 2021). Class Summary - A class summary is a strategy used to test students' comprehension and memory of the previous lessons taught by teachers. In many cases, students are asked to identify the topics and write detailed understanding of what was taught in class. This approach is also integrated into hybrid teaching via video conferencing or written assignments. This element is not technology-specific because students can also present class summaries inside the classroom. However, challenges or limitations can be experienced if the presentation of the class summary is done online. Teachers providing instructional materials

via video conferencing platforms could limit the students' understanding when there is a technical issue, such as poor video quality, audio quality, or bad internet connectivity. The same limitations realized in video and audio elements are also the same limitations that can limit the effectiveness of a class summary strategy for students.

Five Challenges to Hybrid Teaching - There are different challenges to the successful utilization of hybrid teaching. In a recent study conducted by Nebrida & Bangud (2022), one of the significant challenges is the lack of interaction between the online and onsite students. This issue was described by the researchers as a risk for achieving synchronous learning because many teachers tend to focus on onsite students than the online students who may be left behind the class discussion. Additionally, another challenge to hybrid teaching is the online students' perception who might feel that they end up teaching themselves rather than being part of the whole class (Bubacz et al., 2021). The authors viewed this challenge as an additional limitation to achieving the better academic outcomes. Thus, there are other students who prefer to see and hear their professors than to deal with audio-video problems. Relatively, another challenge to hybrid teaching would be the technical issues that are common to all teachers and students. This problem mainly affects the online learners, but could also affect the goal of synchronous learning. The fourth challenge to hybrid teaching is the lack of readiness and technical skills of some teaching staff (Alvarez, 2020). The author explained that one of the reasons why some teachers are not technically competent is because many colleges maintained the status quo of face-to-face learning. Thus, it is proof that significant number of teaching staff are still more familiar with traditional teaching approach than the hybrid environment. Lastly, the lack of engagement among students makes hybrid teaching more challenging. Interestingly, Eliveria et al. (2019) discovered that despite the fact that many students prefer the online learning, the same students also acknowledged that in-classroom activities and discussions are more effective teaching approach.

Hybrid Teaching: 12 Strategies - The 12 teaching strategies can be integrated to hybrid teaching. These strategies are direct instruction, play-based learning, game-based learning, prompting, modelling, and cooperative learning. Furthermore, the strategies also involve service learning, think-pair-share (TPS), two-minute presentation, fishbowl, peer-assisted learning, and brainstorming. In Oman, direct instruction in hybrid teaching is similar to other colleges, where the teacher uses a audio-visual projector and computer with web camera. As for the play-based learning, students develop social, emotional and cognitive skills while learning and even improve their self-confidence through this strategy (Pyle et al., 2020). Games and play sessions have been integrated into hybrid teaching using additional tools, such as interactive whiteboards and tablets. Higher educational institutions in Oman also use game-based learning as one of the teaching strategies, which showed significant acceptance among students (Tawafak et al., 2021). Prompting is mostly effective among learners with different learning styles (Iksan et al., 2021). Omani teachers have also realized the effectiveness of prompting during its integration with hybrid teaching, as it is not as complicated as other teaching strategies. Thus, prompting is also a teacher-centered approach. On the other hand, modeled teaching is another teaching strategy that educators have practiced for many years that allows students to explore the answers on multitude of questions (Stickler & Sykes, 2016). Hence, all these strategies can be modified so they can become more suitable in hybrid teaching.

Ways to Measure the Effectiveness of Hybrid Teaching - There are various ways in which faculty and colleges can measure the effectiveness of hybrid teaching. One of the major factors would be the learner outcome. For example, the college can measure the level of students' motivation to learn, learning satisfaction, students' knowledge construction, and overall class performance (Kintu et al., 2017). Measuring satisfaction is a significant factor in measuring the effectiveness of online and blended learning. Relatively, students' dissatisfaction with the hybrid learning environment can lead to academic incompetence. On the other hand, knowledge construction is achieved when learners are actively participating in class discussion and activities. Colleges in Oman can use these factors to measure whether or not the current hybrid educational environment is effective. Furthermore, measuring the overall academic performance of students serves as one of the most significant measurements of hybrid teaching effectiveness. Academic performance involves multiple aspects, such as test scores, completion of educational benchmarks, willingness to participate in class activities, and even their perspectives toward learning.

How to Achieve Synchronous Learning in Hybrid Teaching - Synchronous activities lead to synchronous learning. However, the case may be different for a hybrid teaching environment, especially since the student is blended in terms of their locations and access to learning materials. The colleges in Oman must ensure that, despite the adoption of hybrid education, synchronous learning must still be achieved. Primarily, teachers must ensure that student's engagement is maintained throughout the class discussion (Carter et al., 2020). In addition, teaching staff must develop an approach that will provide the same teaching phase, both for in-person class students and the online learners. Thus, hybrid teaching must utilize the available technology to ensure that all students are being taught synchronously. This approach will essentially treat all students equally yet providing the students inside the campus to experience some in-person meetings that do not disadvantage those who are learning off-campus.

The Pros and Cons of Hybrid Teaching - The government of Oman has adopted various strategies that will enhance the nation's capability to maximize the benefits of hybrid learning. The Ministry of Education renewed its agreement with Google Workspace so that colleges in the Sultanate of Oman can continue to use the platform as a significant educational tool (Arab News, 2022). Thus, colleges in Oman are finding success in utilizing hybrid teaching, especially when it comes to increasing graduate students' employability (Times Higher Education, 2021). Hybrid teaching and blended learning environments gave way to students to learn using different methods. Thus, offering learning opportunities for individuals, regardless of their locations. However, a hybrid teaching environment also has some drawbacks. Basically, students attending the hybrid class are divided, as some of them are inside the school while others are online. As a result, there are fewer personal interactions among the students, which is essential for learning various personal skills (Winstead, 2022). Another significant drawback of hybrid teaching is the dependence on technological infrastructure, which can disrupt the flow of discussion when there is a technical issue.

Different Activities in Hybrid Teaching - One of the common activities done in a hybrid education setting is collaborative storytelling. In this activity, students will have the chance to share and contribute to the class discussion by telling the whole class about any subject-related experiences. Omani students inside the classroom can either stand in front of the class while the online students are watching through the video conferencing platform, such as Zoom or MS Teams. Online learners can use slide presentations, or they can also share their screen and add some audio backgrounds. Another activity that Omani faculty can do in a hybrid learning environment is a class debate or a question-and-answer activity between the in-person and online students. In this activity, students will have the chance to ask a related question to the presenter. In the same manner, colleges in Oman that adopt hybrid learning can also conduct a friendly debate between students to enhance their critical thinking and thought development skills.

Looking Forward - The Future of Hybrid Teaching - Hybrid teaching has changed the way learners acquire knowledge. For many years, the educational system has been focused on in-person class settings, despite the educational opportunities offered by a hybrid educational environment. The changes in the educational setting are not exclusive to Oman alone. According to experts, hybrid learning and teaching will change the future of education (Arabian Business 2021). Many countries, including Oman, have realized that there are other ways education can be provided. Hence, the technological aspect of this learning environment makes hybrid teaching and learning more interesting for the new generation of students. Through hybrid teaching, faculty will also be required to enhance their technical knowledge to better adapt to the constant changes in technology, as it applies to hybrid teaching. In addition, colleges across Oman are expected to become capable of offering massive open online courses or MOOCs to students in the country (Al-Harthi & Al Ani, 2022). Through a hybrid educational environment, acquiring education and knowledge across different disciplines will become easier and more accessible.

Conclusion/Recommendations - Hybrid teaching is a concept that offers new ways to participate in classroom discussions. The emergence of a hybrid learning environment was apparent when the COVID-19 pandemic created health risks to many people. Hybrid teaching is also viewed as a flexible way to teach students, especially since

there are different elements that enable teachers to teach synchronously between in-person and distant learners. Hybrid teaching becomes effective through the help of audio elements such as podcast recording through MS Teams or Zoom, video element, such as video conferencing, and multiple contents sharing through MEC Learn. However, there are some limitations on the use of these elements that lead to various perceptions of teaching staff toward hybrid teaching. There is no doubt that hybrid teaching has created multiple learning opportunities for students and even helped teachers to develop new teaching methods that would increase student innovation and academic performance. Teachers and college administrators in Oman must collaborate and develop approaches that will create positive educational experiences in hybrid teaching. A review could be done on the technological infrastructure of private sectors to ensure the stability to support the hybrid learning and teaching environment.

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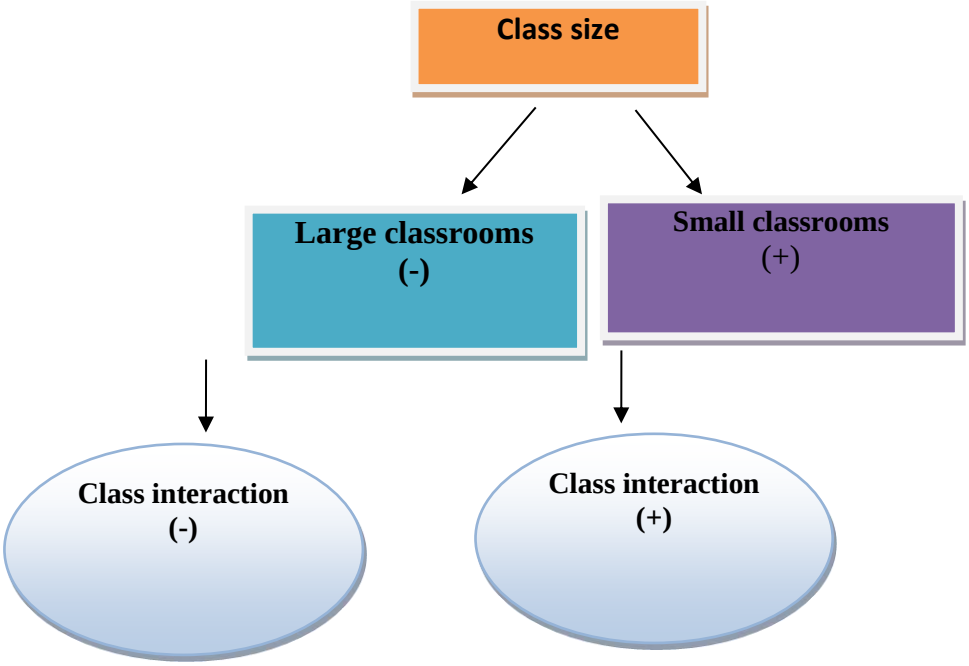
Investigating The Relationship Between Class Interaction and Class Size in The Faculty of Language Studies at Sohar University: A Qualitative Case Study

Halima Ali Sulaiman AL-Maktoumi
Lecturer, GFP, Sohar University

Abstract: This paper describes the relationship between class interaction and class size in the Faculty of Language Studies at Sohar University. The sample of this study is selective. It includes all lecturers who taught level two students in the Faculty of Language Studies in the academic year 2021/ 2022. The number of the lecturers with little experience was five while the number of the experts was fifteen. Two study instruments were utilized, direct observations, and individual interviews. Furthermore, the reliability of the study was proven by repeating the research tools several times. The findings showed that in all three study themes—lecturer engagement with learners, learner interaction with lecturers, and learner interaction with learners—there is an inverse link between class interaction and class size. The findings showed that there was greater class interaction in small classrooms than in large classrooms. This finding aligns with the model of the assumed theory. In order to keep the same number of students in small classrooms for two to three hours, it is advised that the number of learners in large classes should be decreased. Additionally, the study suggests offering lecturers training sessions on how to manage the issue of class interaction in large classrooms. Key words: class interaction, learner interaction, class size. Introduction - Interaction in classrooms between teachers and learners is considered one of the most effective educational factors in the learning process. Sofian & Rogger (2017) asserted that interaction is the heart of learning in classrooms and it is an effective way to support the learners' understanding in classrooms. Interaction is the way of receiving and giving information collaboratively and effectively. Rhalmi (2016) argued that high interaction in classrooms leads to effective learning and as a result, teachers contribute in the learning process by providing good techniques in terms of dealing with class interaction in large and small classes. Based on the learning theory of constructivism, learning process is a dynamic and active process of constructing meaning and transforming effective understanding in interaction with learning environment (Grabinger & Dunlap, 1995). Edutechwiki (2009) stated that theory emphasizes that effective learning is all about knowledge construction, collaborative

discussions, and active learning strategies in terms of improving interaction in classrooms via considering the effects of learning environment and the learners' learning styles of understanding details. Class interaction in teaching process - Class interaction is a major factor in teaching at Sohar University in Oman in both small and large classes (Thamarai, 2017). Class size is a challenging factor in terms of teaching and managing a very big number of learners in a classroom in many aspects of facilitating productive and collaborative learning that improves class interaction. Roy (2017) indicated that in small classrooms learners do not have multiple opportunities to interact with others as their number is little while they have multiple opportunities to interact with others in large classes. Hanum (2017) affirms the role of interaction in helping the teaching and learning process to run smoothly and increasing learners' communication. It tells how the learners interact among them and the lecturer and even with the whole class. It supports communication to happen in the classroom. Both the lecturer and the learners will be active in communication and take part in the teaching and learning process. Class size and learners' interaction - Balakrishnan (2017) proposed that many techniques be included in classroom engagement to ensure its effectiveness. This is also consistent with the traits of effective education for the twenty-first century. Everything done should be interesting, relevant, sensible to the learners, related to their prior knowledge, abilities, and experiences, capable of arousing their curiosity about new information every time, and either directly or indirectly applicable to their daily lives. Such tactics might result in deep learning, which is what the majority of curricula and educational institutions throughout the world aspire for. This study investigates class interaction, and class size at Sohar University. the following presumed theoretical framework (model) illustrates the relationship between class size and class interaction. Figure 1.1, the presumed model illustrating classroom size and class interaction. The above figure shows that small class size indicates more class interaction and vice versa.



Class size challenges - It can be difficult to teach and manage a large group of students in a classroom while still creating effective and collaborative learning that enhances class engagement. Additionally, the size of tiny classes presents a challenge for group control because there are so few learners in them. (Davis ,2013). In large classrooms, low class interaction causes lack of supervision, which prevents lecturers from correcting students' errors which results in a lack of error correction. All students cannot receive equal attention from the teachers. Each learner cannot be watched after by the lecturers and as a result they will be perplexed. The lecturers do not have enough time to grade every paper in large courses. As a result, the learners will be perplexed and the lecturers don't provide helpful feedback to learners in the classrooms; instead, they simply check to see if they have finished the assignment. They also squander time checking attendance records and delivering directions. On the other side, low

class interaction occurs in small courses since there aren't enough students to allow for adequate group and individual sharing of information (Imtias, 2014). Moreover, the disciplinary problems cause confusion among the learners. However, due to insufficient student numbers for proper group and individual information sharing, there is little class interaction in small classrooms. (Shah & Inamullah, 2012). In contrast, learners can learn more in small settings. In classrooms with a small number of students, lectures can motivate students to do well; however, this is challenging in classrooms with a large number of students. Because they think their grades and performance would be better in smaller courses, learners want to enroll in classes with fewer learners. Additionally, learners perform very poorly in huge classrooms while excelling in smaller classrooms with fewer learners (Chingos, 2013). On the other hand, large classrooms may cause the lecturers to become more anxious. They put into practice strategies for large classrooms. The challenges and limitations of low-class contact can be handled by lectures. The lecturers, however, encounter difficulties in tiny classes and are unable to manage fewer students due to the limited opportunities for conducting multiple groups' interaction discussions (Miller &Frtz,2003). Albert (2014) observed that lecturers can better help students in larger classrooms than they can in smaller classrooms, which instills in learners a sense of responsibility and makes them feel important and respected in the learning environment. Due to the limited size of the class, there is little interaction among the learners. As the learners have limited opportunity to interact with others, there is little interaction. Additionally, Roy (2017) noted that because there are fewer learners in small classrooms, there are fewer possibilities for them to interact with one another than there are in large classes. On the other hand, making groups like Jigsaw or Banjo, which are thought to be beneficial in cooperative learning groups that can be controlled in large classrooms, allows lecturers to boost the interaction between learners in huge classes. Due to the small number of learners, lecturers cannot form effective groups in small classrooms. As a result, in small classrooms, the boredom of the learners affects the lecturers. As a result, the interaction is drastically reduced (Johnson & Christensen, 2010). In large classrooms, there is relatively little interaction between professors and students. The teachers in these classrooms don't have enough time to give each student their undivided attention, which results in a lack of feedback. Teachers also struggle with minimal interaction in small courses due to their poor detail understanding. This is the reason Sohar University has now hired certain qualified professors to provide additional support to students who experience learning challenges in crowded classrooms through advising sessions and further consultation. The classes are conducted in **Majlis Support Learning Center**. The role of the professional lecturers in Majlis plays an incredible role at Sohar University because it assists the learners and helps them to overcome their problems of low interaction in both large and small classes (Rogger, 2017). As a lecturer at Sohar University, I have observed that interaction occurs in classrooms more often in smaller settings. On the other side, when there are slow learners present and the lecturers find it difficult to instruct them using methods that suit their learning styles, small classrooms result in very little interaction. Additionally, there is less interaction in large classrooms than in small ones. Although the high learners' population creates several opportunities for different discussions, lecturers and learners both struggle with engagement, information delivery, and information reception due to the congestion in the classrooms. Methodology **-** The study is based on a qualitative study case to investigate whether there is a relationship between class size and class interaction in the Faculty of English Language Studies at Sohar University. Both observations for small and large classrooms and individual and focus group interviews for 20 lecturers are implemented. The study explores the reality of relationship and its type whether negative or positive between class size and class interaction.

Conclusion - This study discovered that small classrooms tend to have greater interaction than large classrooms. The lecturers stated their worries that they could manage small classrooms but not large ones, with the exception of tiny classrooms with one-hour sessions. Additionally, they discovered that managing a large number of learners was particularly difficult compared to managing small classrooms in terms of time management, supervision, and teaching strategies. They were also afraid that they couldn't accommodate learners in the large classes. The lecturers lacked the time necessary to use effective teaching techniques, monitoring, and feedback. Additionally, absenteeism among learners was higher in large classrooms than in small classrooms. This study also showed that

due to time constraints, there is limited contact even in some small classrooms. Due to the time constraints and the enormous number of learners, both the lecturers and the learners were under pressure in the large classes. One-hour classes were challenging for the lecturers. Even in cramped classes, the lecturers were unable to monitor the learners' work throughout the hour-long session. More learners contact occurs in smaller classrooms than in bigger ones. However, there can occasionally be productive class interactions in large classrooms when the lecturers are effective in their reinforcement. Even if getting a certain grade is important to finishing one's studies, learners prefer to interact with other groups when they are in learning groups. As a result of their experience, skilled lecturers can effectively manage learners in large classrooms by giving them enough feedback so that they can remember what they have learned. They can effectively control the classrooms and the pace of the lecture by using body language and gestures. Smaller classrooms tend to have better class interactions than larger ones in the Faculty of Language Studies at Sohar University.

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Investigating The Effects of Social Media On The Well-Being Of Teenagers

Sara Saraiji
Gems First Point School, Dubai, United Arab Emirates

Abstract: There has been a positive association between screen time and depressive symptoms among adolescents. Research has found that using social media will increase self- comparisons especially if engaged with passively. Therefore, this would increase the chances of depression and lower well-being. However, the main reason why I decided to investigate social media further is due to its rather counter-intuitive and controversial results on individual's well-being, especially the youth. hypothesized that if you actively use social media, your overall well-being, social bonding and sense of connectivity will be increased. Research investigating Facebook users found positive results on their well-being after 3 months. I conducted an experiment to investigate the effect of social media on happiness, then conducted a t-Test which showed a statistically significant difference in the mean of happiness scores before and after the experiment. I asked many students to refrain from social media for 33 hours and then tested their happiness score before and after.

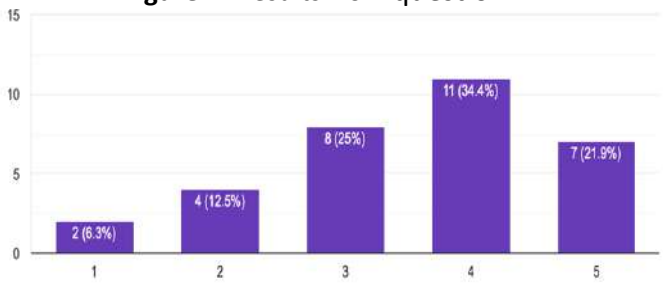
1 **Introduction:** social media is a platform where various videos, pictures, locations, and music are shared with people worldwide. It is a way of expressing personalities, hobbies, interests, culture, and intimacy. We could praise social media for being a significant contributor in comprehensively embracing diversity and raising awareness on countless social, cultural and political issues due to its convenience and practicality. However, something is exciting on social media; the use of positive intermittent reinforcement (PIR); which is also used in slot machines to see what you won. This is a design technique that is also used on social media- every time you pull down your social media page, you get new posts from different accounts, but you do not know what the latest posts are going to be or who shared it and this operates exactly like slot machines in casinos. This unconscious habit is consciously implanted to program social media users (Orlowski, 2020). Previous research (Verduyn et al., 2017) hypothesized that actively using social media increases connectivity, social bonding, and well-being, while using social media passively can have the opposite effect on an individual by decreasing well-being, increasing social comparisons, and envy (Burke et al., 2010). A study of 10,557 Facebook users had their Facebook accounts examined for three months, and after that, they were asked to fill out a questionnaire. They found that active Facebook users' well-being was not affected; however, users who used Facebook for communication with friends and family were found to have positive results (Burke and Kraut, 2016). This suggests that social media if used correctly, increases well-being. Therefore, this is supported by another experiment which discovered that those who use social media frequently as a source of communication are more satisfied with their lives (Dienlin et al., 2017) and have more positive attitudes (Hunt et al., 2018). In contrast, undergraduate students from the University of Pennsylvania were asked to limit their social media to 10 minutes a day or continue using it as usual. The control and experimental groups showed decreased FOMO (fear of missing out) and anxiety, but the experimental group showed more decrease in depression and loneliness (Hunt et al., 2018). However, other studies have found very minimal correlations between social media and life satisfaction/depression (Utz and Breuer 2016, Orben and Przybylski 2019). A more extensive study of 2897 participants were told to deactivate Facebook for four weeks and found that the experimental group showed slight increase in well-being measures (Allcott et al., 2019). Another study on emotional responses across time (Bayer et al., 2016) investigated our emotional outcomes from updating your status on social media and found an increased positive effect after 10 minutes, but the positive effects did not last long. Additionally, there is a positive correlation between screen time and depressive symptoms among adolescents (Hoare et al., 2016). The on-screen evidence time affecting self-esteem is weak (Hoare et al., 2016) as there are mixed results, but more studies have found negative results (Carson et al., 2016). There is a wealth of experiments about social media use affecting self-esteem. An experiment was conducted on children aged 10-14 who were interviewed about their social media use regarding appearance relating to self-esteem (Steinsbekk et al., 2021). They found that increased other-oriented social media use (users who view and respond to others' posts) caused a decrease in appearance self-esteem but only in girls (Steinsbekk et al., 2021). Furthermore, Frison and Eggermont, (2017) Rousseau et al., (2017) concluded that when users engage with social media passively (users who respond and view other posts), they are likely to have an increase in depression and lower well-being (Verduyn et al., 2017). They are exposing themselves to representations of idolized individuals, which inevitability leads to self-comparisons (Krause et al., 2019). However, active social media users (users that post self-oriented content

and interact with other users) correlate to a healthier well-being and lower levels of depression. This is because the online self-presentations are the best versions of themselves, and they mainly receive positive feedback. But active social media use can entail many things, including commenting, liking, and sharing other content (Escobar-Viera et al., 2018). Hence, Steinsbekk and Wichstrøm, (2021) proposed that 'self-oriented' social media use would consist of personal pictures and updates, 'other-oriented' use consists of behavior such as liking or commenting on other users' posts. These terms have important implications for self-esteem (Festinger, 1954). There is supporting research: browsing on your profile does not impact self-esteem, whereas browsing others' profiles do (Gonzales and Hancock, 2011). Social media has an intriguing yet suspicious way of fixating and obsessing people over Instagram feeds, lifestyle posts, and artificial lives built through the power of social media. Consequently, this consumes people's lives and sucks them into a platform that may be more focused on economic factors and capitalization over social factors by allowing users to create their own 'social media identity' based on Gauntlet's Identity theory (Guantlett, 2008) which states that our identities are reinforced through social media. Previous research (Robinson et al., 2021) has stated that social media promotes self-absorption (Lawrence et al., 2021), but it could be argued that posting Instagram stories or pictures of yourself would improve self-esteem and confidence levels (Bayer et al., 2016). All in all, I will cover both the positive and negative effects of social media use on the well-being of individuals. Furthermore, I plan on making inferences of social media's effects after conducting an experiment as a source of primary research and correlating the results I have found by conducting a t-Test to measure the extent to which my results are statistically different**.**

2 Methodology: Firstly, I selected 32 participants using target sampling. I went up to students in my year group during our free lessons, asking them whether they could complete this questionnaire. I turned the link to this questionnaire into a Q.R. code and asked participants whether they could complete it to ensure participants did not feel any peer pressure and felt comfortable. I also did not want to force anyone or make them believe that this was compulsory by giving them the right to withdraw at any time. So that way, this research would be ethical - considering some people find questions about their social media use (like the number of hours they spend on social media every day) to be private or sensitive information due to personal struggles (mental health, procrastination, cyberbullying). Once participants could access the questionnaire, I left the premises to limit researcher bias as much as possible as I did not want to look intimidating or make them feel rushed to receive the most accurate results possible, increasing the internal validity of this primary research. All participants knew I was available nearby to inquire about a question if they did not understand it. Therefore, this increases the internal validity of the results. However, all participants who completed this questionnaire go to Gems FirstPoint school in Dubai and are in year 12. Therefore, the results may not accurately represent all teenagers within the 16-18 age range as there may be culture bias. During my free lesson, I asked students in year 12 whether they would be willing to stay off social media for 33 hours and complete the happiness quiz (https://www.pursuit-of-happiness.org/science-of-happiness/happiness-quiz/) before and after the experiment begins. I selected my participants using opportunity sampling by going into the study room and asking for their consent (detailing the nature of the study's aims to potential participants). I did not want to deceive participants of the true meaning of the experiment as this would be unethical, which would mean that I would have to give participants retrospective consent. Participants may have also felt annoyed and so choose to withdraw their data. While selecting participants, I asked around 80 students, and only 42 individuals agreed; four withdrew during the experiment. Students who disagreed felt that it was too complicated and doubted they could complete the entire experiment. Some students asked for time to decide and then informed me whether they would be taking part or not. Additionally, participants' social media platforms were not allowed to use were Instagram, Snapchat, TikTok, Facebook, Twitter, Pinterest, and Messenger. Email, YouTube, and WhatsApp were permitted for educational and family purposes. Participants were told to stay off social media starting from 12am to 9pm the next day (33 hours). I communicated with the participants on the day where they collectively deprived themselves of social media to check whether any participants withdrew from the experiment and did not open any social media apps so far. Moreover, I ensured all participants understood the aims and objectives of this study, and I made them aware that they could ask me any questions about the

experiment. I conducted this experiment twice to control and monitor participants carefully in each experiment.
3 Results: I included both open and closed questions within this questionnaire. I used closed questions by asking my participants to rate themselves based on a question using a scale of 1-5, and I used open questions by including some answer choices that do not consist of numbers. Using open questions would mean that the results would be more complicated and time-consuming to analyze than closed questions. However, I would gain a lot more detail through open questions. Most respondents (80%) reported that they enjoy spending their time on social media with a tie between the option 4 and a 5 on the numerical rating scale. Indicating that social media is still entertaining and users are happily accessing it, but does this come from users' being social and interacting with others or playing their part in modern consumerism? Moreover, 0 participants selected the option 1 or 2 which suggests that social media users are truly satisfied when they spend their time on social media. The rest of my participants (18.8%) selected 3 which means I can infer that my participants find social media quite enjoyable. Most of my participants (34.4%) stated that social media impacts their procrastination levels daily, scoring 4 out of 5 as can be seen in Figure 7. Meaning that social media may be damaging this generation's degree of education and knowledge as teenagers feel less motivated to study, read, and get an internship to gain real-life experience. Yes, social media can provide entertainment (Figure 8), but this source of entertainment can lead to overindulgence in perhaps not very useful things, reducing the time that could be spent on beneficial activities. However, since the modern world has become more technologically based, spending time on social media platforms and looking at media products could be an extremely positive move as this may be the more up-to-date method for 'gaining experience,' primarily because social media platforms are incredibly business-driven- as I concluded from my research. Around 25% (8 participants) selected a 3 out of 5, which is moderately acceptable. Similarly, 21.9% (7 participants) selected the maximum option – a 5 out of 5. This score could be viewed negatively or, depending on how users use social media; this could be highly advantageous because using social media to deepen knowledge on religion, history, current political issues would be worthy of your time. This makes social media a source of information, supported by the Uses and Gratification theory by Blumler and Katz (Fisher, 2020) which states that social media can be used for educational purposes. On a scale from 1-5, to what extent does social media impact your procrastination level daily?

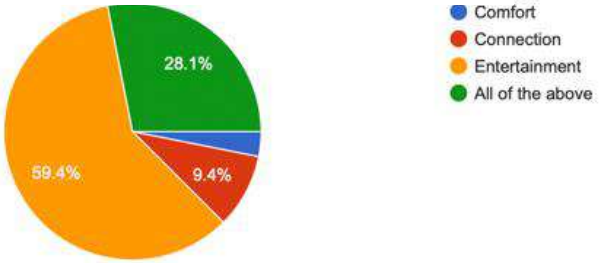
Figure 1- Results from question 1



According to my results, 59.4% of participants state that social media provides entertainment as shown in Figure 2. The other most popular option was 'All of the above,' which was 28.1% of participants' answers. This shows that social media gives them comfort, connection, and entertainment. Theoretically speaking, it could give them comfort due to its drug effect (an increase of dopamine – a happy hormone in your brain) (Robinson et al., 2021). Alternatively, it could be because they are connected with others, ('connection,' 9.4% of my participants selected this option). In addition, using Blumler and Katz's Uses and Gratification theory (Fisher, 2020), social media users either use media products (social media being inclusive) for 1) Entertainment/Escapism 2) Education/Information purposes 3) Social interaction/Personal relationships 4) Relatability/Identification. If a media product provides more than one part of this theory, it could be more popular with audiences (Fisher, 2020). This supports my findings within my questionnaire as social media users use social media for connection,

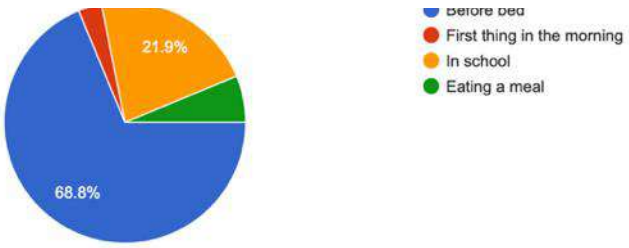
entertainment, and identification (respondents may have selected the 'comfort' option as it provides them with a sense of relatability and identification with other people).
What does social media mostly give you?

Figure 2- *Results from question 2*



In relation to my results, the majority of the participants stated that social media is 'sometimes' more business-based than social-based. 28.1% of my participants said it 'yes' is more business-based. However, a close percentage of 21.9% of my participants stated that it is NOT more business-based. These results could be counterintuitive as social media is social and the core of a large and growing market. I evaluated this concept throughout my research, suggesting points for and against the theory of social media being more economically driven; it can only be implied that social media is becoming more commercially focused. When I asked my subjects when do they use social media, a staggering 68.8% said they use social media the most before bed according to Figure 10. I have yet to find out why people crave to use social media before bed. Could it be because they are done with all their daily tasks and commitments and finally have the time to use social media? The next most selected answer choice was 'In school' with 21.9% - this could be due to my sample of participants as they are all in the sixth form and have free lessons so they may be more able to use their mobile phones in school compared to younger students. When do you use social media the most?

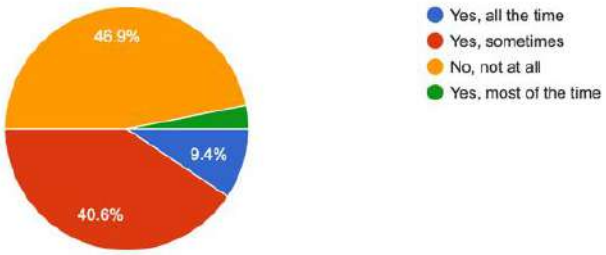
Figure 3- *Results from question 3*



When I asked my subjects whether social media ever made them feel worse about themselves, 46.9% said no, not at all and 40.6% said sometimes, as you can see from Figure 11.

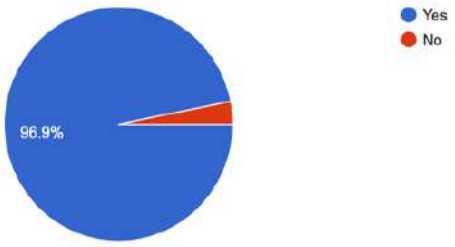
Has social media ever made you feel worse about yourself? (Lower your self-steam)

Figure 4- Results from question 4



Almost all my respondents stated that social media does give them motivation and hopes for the future. This response is in contrast with the information by Akram (2018) as his article says that “The student’s motivation level lessens because utilization of these long-range interpersonal communication locales; “They depend on the virtual condition as opposed to increasing reasonable learning from this present reality." Perhaps the results are subjective to each individual's Instagram account, depending on the Instagram pages they follow.
Has social media ever given you hope and optimism for your future? This could be a future job, motivation to study, travel, etc.

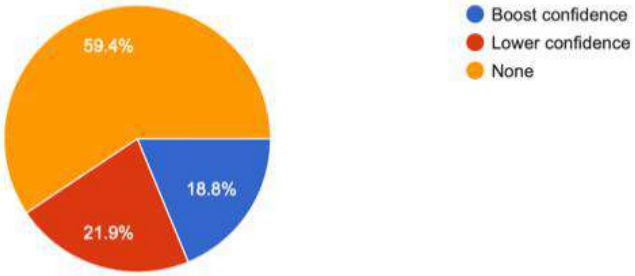
Figure 5- Results from question 5



The results in Figure 13 show that out of 32 of my participants, roughly 60% said that it does not lower nor boost their confidence levels. This is contrary to the research I have looked at (Steinsbekk et al., 2021). Additionally, approximately 20% of my participants stated that it boosts their confidence levels; this correlates with (Bayer et al. 2016); however, he found that the positive effects only last for a short period. However, perhaps the individuals who selected this option of 'increased self-confidence' may have been active social media users (Steinsbekk and Wichstrøm, 2021). Around 20% of my respondents stated that social media lower their overall confidence levels. This correlates with (Burke et al., 2010). Overall, my findings are similar to Orben and Przybylski, (2019) and Utz and Breuer, (2016) as there is only very slight correlations between social media and confidence levels/well-being according to the respondent's results.

Does social media boost your self-esteem (confidence) or lower your confidence levels?

Figure 6- Results from question



Systematic reviews that examine older populations state that one in 8-12 studies find a null correlation, and the rest find a positive correlation between screen time and unfavorable psychological outcomes (Dennison et al., 2016). This shows an unclear link which is why I wanted to investigate this subject further by analyzing my experiment. Notwithstanding, the results in Figure 14 show that most students (31.3%) estimate that they spend around 3-4 hours on social media daily, but overall, the results between the answer choices are almost equal.

Meaning that many of my participants are unaware of the amount of time on social media, as they could be spending a lot more time than expected or vice versa. Therefore, mirroring how they use social media; impulsively and treat it like a necessity.

Table 1- Results for question 7

What was your average time spent on 'social' platforms last week (according to your screen time)?

The average range of hours spent on social media per day	Number of students
2-3	8
4-5	7
6-7	5
8-9	3
10+	3

Screen time is the amount of time a user spends interacting with screens during a specific time frame (Orben, 2019). Table 1 shows that the majority of the participants spend 2-3 hours on social media per day. As you make your way down the table, the number of students decreases. This could be viewed positively due to less screen time or perceived negatively due to a lack of social interaction. However, if totaled (3 hours of social media per day for one week), that would add up to 21 hours per week.

3.1 Experiment results:

Table 2 and 3 show the results I gathered. These are the happiness scores before and after the experiment, using the online Pursuit of Happiness quiz (https://www.pursuit-of-happiness.org/science-of-happiness/happiness-quiz/) that gave a score out of 150 (150 being the highest). Since participants had to complete the same quiz twice, order effects could have occurred, which is the likelihood of participants getting better or bored when repeating the same task more than once, which means they would have lasting effects from the first time they completed the happiness quiz to the second, mainly because the time between completing the quiz is short (33 hours). The participants who consent to participate tend to be less reliant on social media or perhaps more self-actualized than other individuals, which would decrease the reliability of this experiment. Moreover, since I asked participants individually to participate in the experiment, demand characteristics may have occurred. This is because I (the investigator) could have unconsciously spoken differently to participants (different tone of voice, smile more, etc.), which may have affected participants' behaviors, changing their natural behavior.

Table 2- Happiness scores before and after

	Before	After
Average	68.1	79.3
Standard deviation	19.9	21.3
Minimum	29.0	32.0
Maximum	114	116

The standard deviation before the experiment is around 20, and after the experiment, it is approximately 21. Similarly, the minimum and maximum scores became larger after the experiment. The average, however, is the most differentiated, with an average of 68.1 before and 79.3 after. The average happiness score with the standard deviation as an error bar is shown in Figure 16.

3.2 Statistical Analysis and t-Test

The average happiness score increased after 33 hours. However, after conducting a two-tail t-Test using a 95% confidence interval, the p-value was 0.00064, which is less than 0.05. This shows that there is a statistically significant difference between the two means.

Table 3- Female participants' happiness scores

Before experiment	After experiment

53	44
67	57
47	48
82	92
61	71
83	89
45	89
76	97
95	96
74	87
89	116
50	68
80	71
114	115
87	77
74	84
79	85
79	85
58	45
113	101
54	92
71	98
49	57
50	48

Overview of female participants' happiness scores:

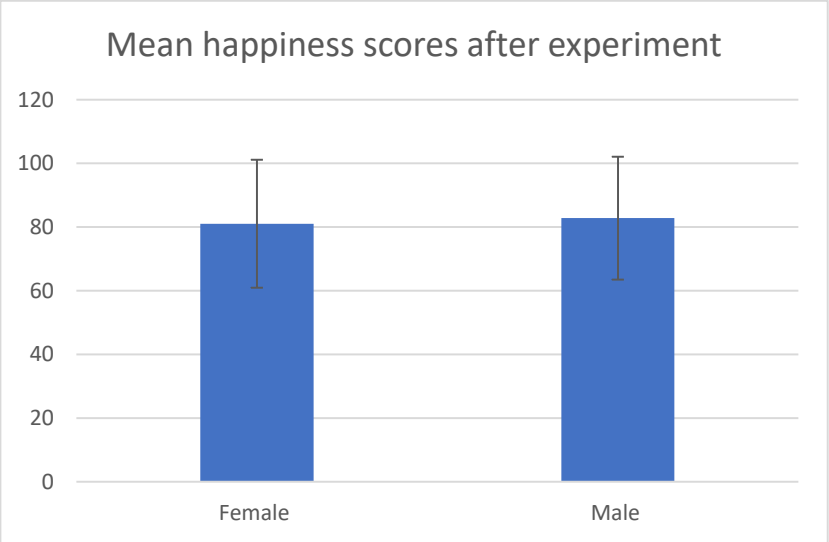
There were 24 female participants. The minimum happiness score within my female participants is 47 before the experiment and 44 after. Before the experiment was conducted, the highest happiness score was 114, and the highest after was 116. Female participants did score higher on the happiness quiz compared to male participants.

Table 4- Male participants' happiness scores

Before experiment	After experiment
62	71
82	96
95	92
72	78
43	65
90	97
46	64
92	99
89	93
62	104
29	32
75	104
89	88
84	76

Overview of male participants' happiness scores: There were 14 male participants. The lowest happiness score before the experiment is 29, and after the experiment is 32. The highest happiness score before completing the experiment is 95, and after the experiment is 104. Male scores before and after were overall lower than female participant scores. However, since my male sample size is smaller than my female sample size, I cannot conclude that males are overall less happy compared to females because this sample only ranges from ages 16-to 18. This means I cannot generalize my finding to the broader population as my sample may be unrepresentative of all males aged 16-18 years. All in all, the average happiness scores between males and females before the experiment are equal (72.1). The happiness scores after the experiment are both similar, with females receiving an approximate mean of 81 and around 83 for males. I conducted another two-tail t-Test to compare the averages between male and female happiness scores after the experiment. Figure 9 presents the average in a chart with error bars. I got a p value of 0.87460895 which is more than 0.05. Meaning that the average happiness score. Therefore, both male and female happiness scores increased to around the same extent.

Figure 7- Average happiness scores after experiment between males and females



4 Discussion: There are many ways to test participants' happiness levels that may be more accurate than a quiz. For example, looking at biological factors – taking saliva and urine samples from participants and studying the changes in neurotransmitters and hormones. However, this was not feasible for me due to complexity issues. Moreover, happiness can be measured by studying behavior (smiling with your eyes and studying with a Duchenne smile) (Sugay et al., 2022), but this would have required observation which would be very time-consuming. Using a quiz may be unrepresentative of real-life happiness behaviors. Therefore, lowering the ecological validity of my experiment and its explanation that a 33-hour social media deprivation would increase happiness levels. Moreover, I trusted participants not to check social media for 33 hours during the experiment. However, I could have activated participants' screen time to ensure they did not use any social media platforms during the 33-hour period. Doing so may have increased the internal validity of my experiment, but doing this would have also created an unethical invasion of privacy. I could have asked for consent for doing so but gathering participants for this experiment was already quite challenging and so informing participants to activate their screen time may have made participants less willing to participate in this experiment. Furthermore, as I gathered participants, I noticed that males were less likely to participate. This may mirror males' dependence on social apps, including online video games. All of the four participants who withdrew were males. Perhaps females are more aware of issues caused due to excess social media use and hence are more self-actualized and determined to use it less often. Since 27/38 (71%) of the participants had an increase in happiness scores, this would correspond to a study conducted by (Hoare, 2016). However, 29% of participants decreased their happiness scores, correlating with (Carson et al., 2016). It also relates with (Verduyn et al., 2017) as he hypothesized that an increase in screen time boosts well-being. Similarly, (Dienlin et al., 2017) as this

experiment discovered that those who use social media frequently as a source of communication are more satisfied with their lives. However, there is a lack of studies that evaluate the effects of prohibiting social media on well-being over a long time (Dienlin et al., 2017), and those investigations would be practical when studying well-being because wellness includes many things other than positive and negative effects, such as life satisfaction (Diener et al., 1999). Perhaps increasing the duration of social media deprivation could have created a much more significant increase in happiness levels.

5 Conclusion: In conclusion, my experiment has shown that social media can negatively impact teenagers' happiness levels and, consequently, teenagers' well-being to a certain extent. 34.4% of my questionnaire participants stated that social media had had a daily impact on their procrastination levels with a score of 4 or 5. This reflects the negative consequences of using social media extensively. Additionally, 68.8% of my participants stated that they most use social media mostly before bed. This is a drawback as social media has been positively associated with disturbed sleep (Levenson et al., 2017). In a study on 1,763 US young adults (aged 19-32) in the USA, those who checked social media 30 minutes before bed had increased sleep disturbance (adjusted odds ratio of 95% confidence interval=1.31-2.34) (Levenson et al., 2017). Moreover, if the hours of social media used per day, by my questionnaire respondents, were to be totaled (3 hours of social media per day for seven days), it would add up to 21 hours of social media per week – this is nearly an entire day of each week consumed by social media usage. Both, male and female teenagers became happier after the experiment to around the same extent. Therefore, there was no significant difference between the happiness score of males and females after they restrained from social media for 33 hours. Altogether, social media can bring entertainment, escapism, connection, and information. However, its consumption can inevitably cause demotivation through self-comparisons and so create a change in our overall happiness levels. It has the ability to allow you to connect with loved ones around the world and actively enhance our society in many ways. Unfortunately, it has been proven that social media can cause destructive effects on teenagers' well-being, which can impact their daily performance. For example, in school, poor sleep or distraction results. Therefore, social media negatively impacts teenagers' happiness and well-being. Meaning that social media users should treat social media with extreme caution.

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Influence of One Hundred Per Cent Transition Policy Implementation on Provision of Adequate Instructional Materials in Public Boarding Secondary Schools in Upper Eastern Region, Kenya

William Micheni M'birichi
Department of Education, Chuka University

Dr. Benjamin Mugambi Kanga
Department of Education, Chuka University

Dr. Eric Mwenda Gitari
Department of Education, Chuka University

Dr. Peter Kimanthi Mbaka
Department of Education, Chuka University

Abstract - The inception of the world Sustainable Development Goal Number four, Target number one raised world's bar of education from Universal Primary Education to include equitable and quality secondary education. This led to high demand for secondary school education. Countries world over started initiatives to admit large number of primary school leavers to secondary school. The Ministry of Education in Kenya developed 100 per cent transition policy to guide the transition of all pupils from primary schools to secondary schools. Despite the efforts of the government to implement 100 per cent transition policy, education stakeholders have expressed concerns that the implementation of the policy may affect the quality of education in secondary schools. The purpose of the study was to establish the influence of implementation of 100 per cent transition policy on the quality of education in public boarding secondary schools in Upper Region of Kenya. The objectives of the study were to; determine the influence of 100 per cent transition policy implementation on the management of quality teaching and learning activities, establish the influence of 100 per cent transition policy implementation on provision of adequate instructional materials, determine the influence of 100 per cent transition policy implementation on the adequacy of school adequacy of infrastructure and examine the influence of 100 per cent policy implementation on management of students' social and emotional wellbeing in public boarding secondary schools in upper eastern region, Kenya. The study utilized the descriptive survey

research design. The study population of was 3065, comprising of 20 QASOs, 145 principals and 2900 teachers. The sample size was 363 subjects consisting of 18 principals, 341 teachers and four QASOs. The 145 public boarding secondary schools were randomly selected. The 18 principals in the selected schools were purposively selected, four QASOs were randomly selected; while 380 teachers were randomly selected to participate in the study. Questionnaires were used to collect data from principals and teachers while an interview schedule was used the collect data from the QASOs. The reliability coefficients of 0.92 and 0. 87 were obtained for principals and teachers' questionnaires respectively. Data analysis was done using Statistical Package for Social Sciences (SPSS) Version 26. Hypotheses were tested using linear regression statistics at α=0.05 level of significant. Based on the findings, all null hypotheses were rejected in favour of and alternative hypotheses. The researcher recommends that; Ministry of Education should provide more funds to buy adequate instructional materials and providing adequate school infrastructure, Directorate of Quality Assurance and Standards conduct regular quality assurance assessments in secondary schools, Teachers Service Commission recruit and deploy adequate teachers, Boards of management to compliment government in providing instructional materials and improving school infrastructure. Principals should ensure that teachers make good use of instructional materials and school infrastructure while classroom teachers should incorporate counseling and guidance as part of teaching. The findings and recommendations have provided crucial information to the Ministry of Education TSC, BOM, Parents and principals on the status of 100 per cent implementation policy and on how to improve the quality of education. Key Words: Provision of Instructional Materials, 100% Transition Policy, Transition from Primary to Secondary, Public Boarding Secondary Schools, Quality of Education.

1. Introduction: Internationally, Studies carried out on teaching and learning resources have revealed that these are not always adequate in secondary schools in Brazil, because of increased enrollment of students (Scheffer, & Dal Poz, 2015). This was as a result of improved transition of learners from primary to secondary schools. The shortage was caused by a mismatch between the number of learners completing primary school, and the number of learners joining secondary schools. The shortages of teaching resources have been a concern for educators. Instructional facilities affected the quality of education in all levels of education in Brazil (Bruns et al., 2011). Furthermore, reports on public universities have noted that the quality and quantity of teaching and learning material was significant for quality teaching and research (Scheffer & Dal Poz, 2015). The quality of education was institutional, academic or subject based. Managers of educational institutions such as deans, heads of departments and principals regarded quality output as an asset and a promotional mechanism. Thus, the increased enrollment led to another challenge of decreased quality of learning in Brazil. Instructional materials are essential tools in learning every subject in the school curriculum. They allow the students to interact with words, symbols and ideas in ways that develop their abilities in reading, listening, solving, viewing, thinking, speaking, writing, using media and technology (Bukoye, 2018). According to Dahar and Faize (2011), instructional materials are print and non-print items that are designed to impact information to students in the educational process. Instructional materials include resources such as prints, textbooks, magazines, newspapers, slides, pictures, workbooks, electronic media, among others. In India, the global initiatives for universal education and rapid population growth have led to increase in enrollment in the primary and secondary schools, which has subsequently led to a strain in the available instructional resources (Jain & Prasad, 2018). Overcrowded or large classes are now common places in most educational institutions, especially those in like India. There are many challenges that teachers face when teaching large class size. Among the most common challenges, Jain & Prasad (2018) cited inadequate instructional materials to be the factor that hindered learning in the schools, the most. This was as associated with inadequate funds that lead to shortage of instructional materials, inadequate school buildings, inadequate educational facilities, poorly qualified and poorly remunerated teachers and inadequate learning conditions leading to poor results. The Kenyan situation is not different either, as the cumulative results of 100 per cent transition has led to increased enrollment. This current study aimed to establish how it had affected the adequacy of instructional materials in schools. A study carried out in United Kingdom by Blatchford et al. (2013) that established that students in smaller classes

(average of 19 students per class) exhibited more time being utilized for instructional purposes and less time being utilized for non-instructional purposes, such as talking to one's peers about non-academic topics, than students in larger classes (average of 32 students per class). Another research by Olaniyan and Ojo (2008) found out that lack of textbooks and training manuals was one of the challenges hindering successful implementation of early technology in Nigerian secondary schools. This is in agreement with Chiriswa (2002) who found out that effective teaching and learning depends on the availability of suitable, adequate resources such as books, laboratories, library materials and other visual and audio teaching aids which enhance good performance in the national examination. The current study has interest in government funding of secondary and the fact that it may not be adequate to purchase adequate instructional materials. Instructional materials play an important role in the teaching-learning process. The availability of resources such as textbook, chalkboard, study kits, teaching guides, audio-visual aids, overhead projectors, laboratory equipment among others are the important instructional materials. Instructional resources can be denoted as those materials that promote and aid the learner in understanding of the concepts or ideas presented to the learner in a learning place. Teachers employ these materials to assist student's learning and increase the interest in learning as well. These resources are used to enhance the learner's total participation in class activities aimed at effective learning (Klier, 2017). Instructional materials are very critical ingredients in learning and the intended programme cannot be achieved easily without them. The instructional materials sources information and chances for learners to utilize what they have learnt. Without resources materials and facilitates, the teacher may not be in a position to settle the set course objective. A study conducted at a medium sized polytechnic in the United Kingdom echoes these findings (Clark & Del Bono, 2016). The researchers established that students in large first-year courses experienced feelings of anonymity and a reluctance to speak up or ask questions, thus affecting the teaching and learning process, as they were not able to give feedback to their lecturers. In the study, the teachers were to comment on the teacher-students' interaction and how it was affected by the implementation of 100 per cent transition policy. A study by Olaniyan and Ojo (2008) found out that lack of textbooks and training manuals was one of the challenges hindering successful implementation of early technology in Nigerian secondary schools. This is in agreement with Chiriswa (2002) who found out that effective teaching and learning depends on the availability of suitable, adequate resources such as books, laboratories, library materials and other visual and audio teaching aids which enhance good performance in the national examination. The current study has interest in government funding of secondary and the fact that it may not be adequate to purchase adequate instructional materials. Mughal, (2020) carried out a study in Pakistan on determinants of enrollment in secondary education a case study of district Lahore. Primary data was collected from 3320 households where 2520 households belonged to the urban areas and 800 households belonged to the rural areas. The factors contributing positively and significantly to net enrollment of children at primary school level were found to be family size, dwelling ownership, expenses on education, literacy ratio and dependency ratio. It was also established that access to school is not a very significant factor towards inhibiting school attendance. It was concluded that despite the positive effect of some of the characteristics of individuals and households on gross as well as net enrollment, there are various strong qualitative factors across the socioeconomic spectrum that had differential impacts on school enrollment. Mughal, (2020) noted that teacher's qualification and adequate facilities were determinants of assessing academic performance of students in secondary schools. Hence the availability of facilities in schools affects the academic performance of students. Many studies done on factors influencing poor performance of students in KCSE examinations have indicated increased enrollment leading to inadequate teaching learning resources as one of the key variables. Aregbeshola and Khan, (2018) noted that central to the education process are educational resources which play an important role in the achievement of education objectives and goals by enhancing effective teaching and learning. According to Aregbeshola and Khan, (2018) physical resources include laboratories, libraries, classrooms and a host of other physical infrastructure while material resources include textbooks, charts, and maps and should be proportional to the enrollment in schools. They further commenting on educational resources says that, they are important because

the goal of any school depends on adequate supply and utilization of physical and material resources among others as they enhance proper teaching and learning. Karimi (2011) noted that effective school libraries provide additional reading opportunities for students which in turn improve reading skills, comprehension and writing clarity of expression which in turn support students‟ performance in all other curriculum subjects. He further noted that size of school library should be able to accommodate the size of the school. In Africa, Muyoyeta at al. (2017) carried out a study of the school-based factors affecting grade 12 learners' academic performance in Namibia Senior Secondary Certificate Ordinary Level Biology in the Khomas Educational Region. The study used mixed methods research, with a randomly selected sample of 480 respondents, who included 450 students, 15 Biology teachers and 15 science heads of department. Data were collected using questionnaires and interview schedules. The findings of the study indicated that, the teaching and learning of Biology in the Khomas Educational Region of Namibia was affected by lack of relevant teaching and learning resources, lack of laboratory equipment, a lengthy Biology syllabus, overcrowded classrooms, and lack of commitment by the school administration. Muyoyeta et al. (2017) recommended that the school administrators in the region should seek support from government, donor agencies and philanthropic organizations to equip the schools with the relevant teaching and learning resources. This was done in secondary schools under the normal transition policy. Under the 100 per cent transition policy, schools are required to handle more students than in the normal transition policy, thus placing a constrain on the resources. How effective teaching and learning process is maintained, despite the strain in the teaching resources, is the focus of this study. According to a study conducted in Tanzania by Akomolafe et al. (2016) to assess the influence of educational instructional materials such as chalk and books on the performance of ordinary level secondary schools in Morogoro and Dar Es Salaam, revealed that there is a significant relationship between instructional materials and academic performance. The study employed a cross-sectional study design with the respondents including head teachers of secondary schools in Morogoro and Dar Es Salaam. The interactions of students and the instructional materials enhance leaning by students. With the implementation of 100 per cent transition policy and the subsequent increase in enrolment in secondary schools, a major concern for schools is whether they are able to provide adequate instructional materials for all students. A Kenyan study by Othoo et al. (2019), investigated on the influence of teaching and learning resources on academic performance of public secondary schools of Kuria East and Kuria West sub counties. The study used a descriptive survey research design, and was carried out using a sample comprising 36 principals and 138 teachers. The results of the study showed that adequacy of teaching and learning resources had significant effect on students' academic achievement. The researchers found that the continued increase in enrolment in secondary schools which is not followed by increase in teaching and learning resources put pressure on the limited teaching and learning resources thus affecting the academic performance of the schools. The situation has been worsened by the 100 per cent transition policy that has made the schools to accommodate more students than they can handle. This increased enrollment without additional resources may compromise the quality of learning. A study by Wambua (2011) on the impact of school infrastructure on access and provision of quality secondary education in Kisumu Municipality established that the number and quality of school teaching and learning resources like classrooms, library, and laboratory influence the provision of quality secondary education in Kisumu municipality. Adequate tuition facilities facilitated the provision of quality education. She recommended that the ministry needed to level the ground for all learners particularly those who lack the facility. The study was done in urban centre but the current study was done in the rural and remote area and not only looked at school infrastructure but also other school resources like teachers and finances. The current study took cognizance of this finding and assessed the levels of adequacy and utilization of selected teaching and learning resources and their influence on quality of education. According to Agosiobe (2015) the exploitation of teaching resources is important because they motivate learners to learn as they offer stimulus variations and help in sustaining learners' attention throughout the lesson. Learning aids confirms information, sometimes a concept may be complex and words alone cannot offer a clear elaboration. Institutional materials enhance lively class discussion after watching a film in a class and listening to a radio.

They also challenge independent thinking most especially when used individually in an assignment or as a class activity. These teaching and learning materials generate more interest and creates a situation where the learner would fully engage in classroom and outdoor activities. Maximum utilization and employment of these instructional resources provides the learner with a practical experience which can aid selection of learning concepts more easily. Various terms such as instructional materials, audio visuals aids, teaching resources and learning aids are said to have a similar meaning. The comprehensive study by Alabere et al. (2017) importance of teaching aids on effective teaching of English language as a second language among the secondary school students in Nigeria. The study employed a descriptive survey design where data was analyzed using descriptive and inferential statistics. The study revealed that where students were taught without instructional materials the performance in examinations were very poor. The inferential statistical analysis revealed that there was no significant difference in performance by students and the use of instructional material. These findings are important is the current study they differ with expected results. This discrepancy is of concern for there could be other factor that led the good performance other than the instructional materials from what is expected. A study by Akinsanya (2010) to determine the influence of differential distribution and utilization of human resources on students' performance in state-owned and federal schools in Ogun State, Nigeria found that physical facilities like laboratories and libraries were inadequate which influenced students' performance. Oni (1995) found that availability and quality of materials facilitate smooth operation of any school and thereby enhancing effective teaching/learning activity and thus higher educational attainment by students. A study by Laurillard (2013) study on effective teaching, and learning technologies in Botswana found that lack of relevant teaching materials caused dismal students' academic performance. The study further found that students' academic achievement is mainly caused by lack of relevant textbooks and other print materials such as publications and handbooks. The government of Botswana is committed to ensure that the Ministry of Education and Skill Development receives lion's share, both recurrent and development budget (Matambo, 2013). Luke et al., 2014) posits that despite all the efforts by the government on education, the students' academic performance has been declining lately from 2010. According to Lyons (2012) students' performance is influenced by the quality and quantity of teaching materials. Lyons (2012), found out that institutions that have adequate teaching/learning resources such as textbooks, charts, maps, audiovisual and electronic instructional materials such as radio, tape recorder, television and video tape recorder stand a better chance of performing well in examination than poorly equipped ones. Therefore, poor academic performance could be attributed to lack of enough teaching materials and equipment, thus the need to carry out this study to establish the validity of this statement. Agosiobo (2007), noted that the use of teaching resources is important because they motivate learners to learn. They offer stimulus variation and assist in sustaining learners' attention throughout the lesson. Learning resources clarify information, and offer a clear explanation to complex concepts. In addition, instructional materials stimulate lively class discussion. For example, after watching a film in a class or listening to radio. In addition, they also challenge independent thinking, especially when used individually in an assignment or as a class activity. A study in Kenya by Chepkonga, (2017), observed that in some instances textbooks provide the only source of information for students as well as the course of studies for the subjects. He noted schools that sought to improve their quality of education then, their instructional materials change to facilitate actual teaching. While the selection of a textbook has been judged to be of vital importance to academic achievement, it is sad to say that relevant books are not available for teaching and learning activities. Improvements seem to be linked to the instructional practices implemented in the smaller classrooms rather than the classroom size itself (Faubert, 2012). The smaller schools may have a positive impact on disadvantaged students since teacher have personalized attention compare to large schools where a teacher interact with many students in different classes. A study by Omaiyo (2013) in Migori, Kenya on the effects of instructional resources on children's performance, a study that adopted a descriptive survey design. The researcher targeted a total number of 225 children were selected from a possible population of 750. Using the questionnaire and observation schedule, the study established that there was minimal use of teaching and

learning resources in these schools. The study concluded that use of teaching and learning resources affected the academic performance of the preschoolers and as such recommended that more teaching and learning resources should be applied in order to uplift the academic performance of learners in these schools. Though the study considered learners in semi-rural areas, the current study applied the same research design and considered provision of adequate instructional materials as a dependent variable in this study. A study by Orodho et al. (2013) revealed that challenges in availability and adequacy of learning resources had a negative effect on teacher effectiveness in the use of teaching methods as well as focus on individual learner. (World Bank 2014) posited that teaching and learning space determine access to secondary education and also transition from primary to secondary. According to Fillardo et al., ((2017), Poor teaching and learning space like classrooms, laboratories and libraries is a barrier to deliveries of curriculum. Spacious learning space provide teachers with adequate room to monitor individual student activity. At the same time spacious laboratories are safe as student are able to move freely during practical lessons. This current study is interested in learning resources. In Kenya, Oyugi and Nyagah (2010) assessed the influence of Teaching and Learning Resources on the Implementation of Inclusive Education in Pre-School Centers in Nyamira North Sub-County. The study sampled 134 pre- school teachers and 270 preschool parents through stratified random sampling and 12 Education Officers sampled by census sampling. The study found that teaching/learning resources comprise of community involvement, regular teachers for both special needs students and the average students which influence student performance. A study by Yara and Otieno (2010) on teaching and learning resources and academic performance shows that, stationaries and teaching aids influence students' performance. His findings are in agreement with findings of UNESCO (2008) report that teaching and learning materials such as text books, teaching aids (chalk, chalk board) and stationaries can influence students' academic performance. Nyambura (2012) studied the Challenges faced by school administrators in implementation of subsidized secondary education in Mombasa sub county, Kenya. The purpose of carrying out this study was to examine the challenges faced by schools' administrators in the implementation of subsidized education in public secondary schools in Mombasa sub-County. Descriptive research design was used in this study. Purposive sampling was also used to draw up a sample size of seven out of the 13 public schools in the district. Questionnaires were used as instruments for collecting data from the principals and head of departments. The data collected was processed and analyzed using SPSS package and output in Microsoft Word 2010. The findings revealed that the implementation of subsidized secondary education in Mombasa District faced many challenges which are attributed to high enrollment, high drop-out rate, low transition rate and inadequate funds among others and less resource for learning. This was a study on Challenges faced by school administrators in implementation of subsidized secondary education in Mombasa sub -county. The study used descriptive research design. This study focused on increased enrollment and its implications on quality education in public primary schools and also used sequential explanatory design that was employed within mixed methods approach. A study by Njenga (2019) found out that the secondary schools in the Nyandrua Central Sub County-Kenya, inadequate teaching and learning which made the implementation of the school curriculum difficult. The study noted that there were inadequate sanitary facilities. The shortage led to wastage of teaching time as the students spent more time queuing to access limited toilets and urinals. From the study it was concluded that the selected physical facilities have a positive influence on the implementation of 100% transition policy. The current study intends to establish the influence of the implementation policy on the quality of education in the public boarding schools in upper eastern region of Kenya.

1.2 Objective of the Study: The objective of the study was to establish the influence of 100 per cent transition policy implementation on provision of adequate instructional materials in public boarding secondary schools in Upper Eastern Region, Kenya.

3.2 Research Design: The study utilized the descriptive survey and a correlational research design. According to Groves et al. (2004), is a systematic method for gathering information from a sample of entities for the purposes of constructing quantitative descriptors of the attributes of the larger population of which the entities are

members. According to Kothari (2004) the major purpose of descriptive research is to describe the state of affairs as it exists at present. Therefore, this design was suitable in the current study since the 100 per cent transition policy implementation has been ongoing since 2018 hence the status can be assessed. The descriptive survey was also considered the most appropriate research design for this study because in the study, the researcher collected information on the state of affairs in the schools, without manipulating any variables. By using a descriptive survey design, the researcher managed to study a representative sample and generalized the findings to the entire target population. Mugenda and Mugenda (2009) notes that descriptive survey is useful in this study because the study was used to collect data from an identified groups of respondents with the objective of determining whether 100 per cent transition policy has an influence on quality education in public boarding secondary schools. A correlational research design was used since the researcher sought to establish the relationship between the dependent and the independent variables.

2.1 Results and Discussion: - The objective of the study was to establish the influence of 100 per cent transition policy implementation on provision of adequate instructional materials in public boarding secondary schools in upper eastern region, Kenya. The teachers were requested to rate their levels of agreement or disagreement on a 5= point Likert scale, where; (5) =strongly Agree (4) =Agree, (3) = Neutral, (2) = Disagree and (1) = Strongly Disagree. The findings obtained are presented on the Table 1.

Table 1: Teachers Responses on Provision of Adequate Instructional Materials

Statement	SA % N	A % N	N % N	D % N	SD % N
Implementation of 100% transition policy has led to inadequate relevant textbooks for all students.	71.5 (243)	3.2 (11)	7.4 (2)5)	13.5 (46)	4.4 (15)
Implementation of 100% transition policy has led to inadequate revision materials.	27.6 (94)	60.0 (204)	1.2) (4)	9.4 (32)	1.8 (6)
Implementation of 100% transition policy has led to inadequate electronic media equipment.	2.4 (8)	69.9 (237)	7.1 (24)	7.9 (27)	3.5 (12)
Implementation of 100% transition policy has led to inadequate fire and safety equipment in the school.	61.8 (210)	11.5 (39)	4.4 (15)))	18.8 (64)	3.5 (12)
Implementation of 100% transition policy has led to inadequate laboratory chemicals and science equipment.	69.7 (237)	7.1 (24)	6.2 (21)	13.5 (46)	3.5 (15)
Implementation of 100% transition policy has led to inadequate Chalk boards and wall maps.	8.5 (29)	7.4 (25)	6.8 (23)	16.5 (56)	60.9 (207)
Implementation of 100% transition policy has led to inadequate reference materials.	22.9 (78)	65.3 (222)	2.4 (8)	5.0 (17)	4.4 (15)
Implementation of 100% transition policy has led to inadequate science models and	16.2 (55)	61.5 (209)	8.8 (30)	9.1 (31)	4.4 (15)

geography globes.					

Findings in Table 1 show that 254(74.7%) of the teacher agreed that implementation of 100% transition policy led to inadequacy of relevant textbooks. A further 298(87.6%) concurred that 100% transition policy has led to inadequate revision materials. In addition, 245(72.3%) of the teachers noted that100% transition policy led to inadequate electronic media equipment. Another 249(73.3%) of the respondents opined that 100% transition policy led to inadequate fire and safety equipment in the school. Another 261(76.8%) teachers agreed 100% transition policy led to inadequate laboratory chemicals and science equipment. In contrast a large number 263(77.4%) disagreed 100% transition policy led to inadequacy of Chalk boards and wall maps. Majority 300(88.2%) of the teachers reported that 100% transition policy led to inadequacy reference materials in public boarding schools in upper eastern region of Kenya. The principals were requested to rate their levels of agreement or disagreement on a 5- point Likert scale, where; (5) =strongly Agree (4) =Agree, (3) = Neutral, (2) = Disagree and (1) = Strongly Disagree. The findings obtained are presented on the Table 2.

Table 2: Principals Responses on Provision of Adequate Instructional Material

Statement	SA % N	A % N	N % N	D % N	SD % N
Implementation of 100% transition policy has made it difficult for the school to provide students with adequacy of relevant text books.	61.1 (11)	22.2 (4)	5.6 (1)	11.1 (2)	0 (0)
Implementation of 100% transition policy has made it difficult for the school to provide adequate reference materials	5.6 (1)	77.8 (14)	5.6 (1)	0 (0)	11.1 (2)
Implementation of 100% transition policy has led to inadequate laboratory chemicals and science equipment.	16.7 (3)	66.7 (12)	5.6 (1)	5.6 (1)	5.6 (1)
Implementation of 100% transition policy has made it difficult for the school to provide adequate chalk board and wall maps.	0 (0)	5.6 (1)	5.6 (1)	5.6 (1)	83.3 (15)
Implementation of 100% transition policy has made it difficult for the school to provide adequate revision materials to students.	11.1 (2)	55.5 (10)	0 (0)	16.7 (3)	16.7 (3)

Findings in Table 2 indicate that 15 (83.3%) of the principals agreed implementation of 100% transition policy made it difficult for the school to provide students with adequate relevant text books. Further, 15(83.4%) of the principals indicated that implementation of 100% transition policy made it difficult for the school to provide adequate reference materials. Another 15(83.4%) of the principals indicated that implementation of 100% transition policy led to inadequacy of laboratory chemicals and science equipment. In addition, 16(89.4%) of the principals disagreed that implementation of 100% transition policy made it difficult for the school to provide adequate chalk board and wall maps. Finally, 12(66.6%) of the principals pointed out that implementation of 100% transition policy made it difficult for the school to provide adequate revision materials to students. In regard to adequacy of relevant text books, the study established that 74.7% and 83.3% of the teachers and

principals respectively concurred that implementation of 100% transition policy led to inadequacy of relevant textbooks. These findings agreed with Dahar and Faize (2011) who found out that large enrolments due to increased transition led inadequacy of instructional materials such as relevant textbooks. Further, the study established that 72.3% of the teachers agreed that100% transition policy led to inadequate electronic media equipment these findings agree with Lowe (2017) which found out that various learning materials which include; print electronic, models and multi-media are required for effective learning. Further other instructional materials such as magazines, newspapers, chart map and posters enhance effective learning. Indeed, teaching and learning which involve watching models make learning practical and real. In situation where of learning materials are inadequate there is little learning. This is because the teachers use resources to enhance learner participation in class activities resulting in effective learning. From the findings, found out that 74.7% and 83.3 % of the principals respectively agreed that implementation of 100% transition policy led to inadequacy of relevant textbooks. These findings concur with Victory (2020) who established that there was inadequacy of instructional materials due to increased enrolment in Nigeria. In addition, Lyons (2012) concurred adequate teaching/learning resources such as textbooks critical in effective teaching. The relevant text books are important in that they are a credible source of information that the learners. It is with adequate text books that teachers are able to give students assignments. Inadequacy of text books lead to students sharing text books which is not effective in giving students individualized assignments. In regard to availability of instructional materials, established 87.6% and 87.6% of teachers and principals respectively found out that implementation of 100% transition policy led to inadequacy of revision materials in the secondary schools. These findings concur with Agosiobo (2007) who found out that instructional materials are useful in stimulating lively class discussions. This is illustrated by student who watch a video demonstrating an abstract concept in class. As a result, the concept becomes clear to learners and provokes more discussion on the concept. The study established that implementation of 100% transition policy led to inadequate reference materials, as was indicated by 87.6 %and 83.6% of the teachers and principals respectively who agreed. An earlier study by Lyons (2012) who found out that institutions with adequate teaching/learning resources such as textbooks, charts, maps, audiovisual and electronic instructional materials such as radio, tape recorder, television and video tape recorder stand a better chance of performing well in examination than poorly equipped ones. Therefore, poor academic performance could be attributed to lack of enough teaching materials and equipment. In regard to the adequacy of chalkboards and wall maps, 77.4% and 88.9 % of teachers and principals respectively noted that implementation of the policy did not have significant effect. These findings differ with findings of UNESCO (2008) which reported that teaching and learning materials such as chalk and chalk board and can influence students' academic performance. This contradiction in the findings is due to change in technology between 2008 and 2022 when former and the current studies were conducted. The study established that implementation of 100% transition policy led to inadequate science models for teaching as indicated by 98.2% of the teachers. These findings concur with Othoo et al. (2019) who indicated that adequacy of teaching and learning resources had significant effect on students' academic achievement. The researcher found out that the continued increase in enrolment in secondary schools which is not followed by increase in teaching and learning resources put pressure on the limited teaching and learning resources thus affecting the academic performance of the schools.

2.2 Summary of the Research Findings: - From the findings of the study, it is established that increase in number of students due to implementation of 100% transition policy led to inadequate reference material for all students within the recommended ratio with students sharing reference material. The study further established that increase the study established that increase in number of students due to implementation of 100% transition policy led to inadequate reference material for all students within the recommended ratio with students sharing reference material. The study further established that increase in number of students due to implementation of 100% transition policy led to inadequate revision materials in the secondary schools, chalk boards, wall maps and electronic media. In regard to testing the null hypothesis which stated that implementation of 100% transition policy has no statistically significant influence on provision of instructional

materials in public boarding secondary schools in upper Eastern region, Kenya.

2.3 Conclusion: - The study established that the implementation of 100% transition policy significantly influenced the provision of adequate instructional materials. Most of the schools lacked adequate teaching resources to cater for the increased enrollment, leading to students sharing reference materials. This negatively affected the quality of learning. This is because the growth of the school enrolment was not matched with corresponding increase and expansion of instructional materials.

2.4 Recommendation: - The government should consider investing more in the provision of instructional materials and distribution to all public secondary schools. The availability of adequate instructional materials will facilitate teaching and learning leading to the provision of quality education.

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Scientific Education. Good Practice During the Pandemic 2020- 2021

Dr. Silvia Moraru
Liceul Teoretic Național, Bucharest, Romania

Abstract - The paper presents the realization of an interdisciplinary course entitled OUR PLANET for students

aged 10-14. The 12 themes followed the use of new technologies in science education. The lessons were realized in a hybrid format, each lesson was attended by students from Romania (12 students), Turkey (10 students), UK (8 students). The curriculum is formed following the chemical composition of the planet Earth, the study of the atmosphere, the study of water, the richness of the planet Earth. The design of the lessons has taken into account the active learning methodology, in which students participate dynamically in the lessons. The work has 2 parts: Part 1: Presentation of the optional course our planet Presentation of the methodology of an active lesson (chemistry)**.** Part II: Didactic design of 12 lessons within the ICT and 4 school projects. Instead of conclusions. Bibliography Keywords**:** active learning, scientific education, ICT, future classroom, our planet. The project with reference number 2018-1-RO01-KA229-049500 was coordinated by the National Theoretical High School. It was written to highlight: 1.Development of an interdisciplinary course with scientific topic to be used by students of different ages (10-14 years) ; 2. The realization of the course -Dr.Silvia Moraru https://www.liceulnational.ro/despre-liceul-teoretic-national/erasmus/ Part 1 Presentation of the optional course Our planet CURRICULUM ON SCHOOL'S DECISION SCHOOL YEAR 2020-2021

TITLE: Planet Earth Author: dr.Silvia Moraru Target group: The optional course "Planet Earth" is a trans disciplinary course that can betaught to student starting with the age of 10 to the age of 14.Motivation for writing the course: The course gives the students the opportunity to create cross-curricular projects, to communicate with students from our country and abroad, helping them to better understand the theory related to Math and Science. It also proposes subjects presented through animations, powerpoint presentations, games, projects, during the online classes, by using ICT when teaching science. It is an optional course taught both in Romanian and English. Evaluation means - Google forms, projects, portofolio the place where the class is going to take place: - Informatics lab/ chemistry lab/ future classroom Number of classes: - 1 -2 classes per week

GENERAL SKILLS

1. Knowing and understanding the terminology, theconcepts and methods specific to information technology.
2. Development of discovery abilities, investigation andusage of instruments that LTN platform disposes.
3. Creating and developing the spirit, practising individualand team work.
4. Developing speaking skills using a specific language.
5. Understanding and using mathematics and science specific language in communication.
6. Creating and developing abilities to experiment and investigate Planet Earth.
7. Developing the interest and motivation for studying Mathematics and Science in different contexts, through relevant projects.
8. Developing scientific vocabulary in both Romanian and English language.

Reference Skills And Learning Activities Examples: - 1. Knowing And Understanding Of Terminology, Concepts And Methods Specific To Information Technology. 2. Developing Exploration Capacities, Investigation And Using Of The Instruments That Ltn Platform Has. 3. Creating And Developing Creativity And Individual/Team Work. 4. Developing Communication Skills Using Specific Vocabulary. 5. Understanding And Using Terms And Mathematics And Science Concepts. 6. Creating And Developing Experimental Creativity Through Studying Physics And Chemistry. 1. Knowing And Understanding Terminology, Concepts And Methods Specific To Informatic Technology 1. The Internet - 1 Class 1.1: What Internet Is; 1.2: A Web Address; 1.3: What A Browser Is; 2. Accessing Web Pages - 1 Class 2.1 Recording Of Accessed Web Pages; 3. Search Engine - 1 Class 3.1: Examples Of Search Engines; 3.2 Using The Search Engines To Manage The Web Pages. 4 Electronic Mail -1 Class 4.1 What The Electronic Mail Does; 4.2 Managing The Messages: Reading, Erasing, Creating, AttachingFolders. 5. Creating Tools For A Web Page- 1 Class 5.1 Personal Pages; 5.2 Interactive Tools. 6. Students And Their Community - 1class 6.1 Searching Tools And Sending Messages To Virtual Community Members Students-Teachers ;6.2 Managing The E-Mail Addresses; 2. DEVELOPING THE

EXPLORATION, INVESTIGATION AND USING THE INSTRUMENTS THAT THE LTN PLATFORM HAS 2.1 Being Involved In Projects Created By The Members Of OurCommunity 1-3 Classes 2.2 Creating And Taking Part In A Project; 2.3 Attending National And International Projects Online. 3. ATTENDING AND DEVELOPING TEAM AND INDIVIDUAL WORK 3.1 .1Imagine Having A Trip In A International Space Station 3.1.2 How Things Happen In A Space Station 3.1.3 How Can We Become Astronauts 4. DEVELOPING THE ABILITY TO COMMUNICATE USING THEINFORMATION TECHNOLOGY VOCABULARY 4.1 Creating Games To Help The Students Find Out More Things About TheSolar System - 2 Classes 5 UNDERSTANDING AND USING SPECIFIC VOCABULARY ANDCONCEPTS 5.1 General Concepts About Planet Earth - 6 Classes 5.1.1 Planet Earth - General Features Of The Blue Planet 5.1.2 Planet Earth Seen From Above (Meeting Mister Dumitru Prunariu) 5.1.3 Curiosities About Planet Earth 5.1.4 Creating A Project For Earth Day, 22nd Of April 6. BUILDING AND DEVELOPING THE CAPACITY AND THE ABILITY TOEXPERIMENT AND INVESTIGATE REALITY BY STUDYING THEPHYSICAL AND CHEMICAL PHENOMENA (PLANET EARTH) 6.1 Chemical Composition Of Planet Earth - 2 Ore 6.1.1 Oxygen And The Phenomenon Of Photosynthesis - 2 Classes 6.1.2 Hydrogen And The Reactions In The Sun - 2 Classes 6.2 Water – Essential Element Of Life On Planet Earth - 2 Classes 6.3 Physical And Chemical Phenomena Taking Place On Planet Earth- 2 Classes 6.4 Earth's Atmosphere - Homogeneous Mixture. Homogeneous And Heterogeneous Mixtures - 2 Classes 6.5 Methods Of Separating Substances From Mixtures - 2 Classes 6.6 Human Body - Chemical Composition - 2 Classes 6.7 The Study Of A Healthy Diet - 2 Classes 6.7 The Inhabitants Of Planet Earth - 4 Classes 6.7.1 The Inheritance Of The Roman Empire In The Occupied Territories - 2Classes 6.7.2 The Influence Of English And Turkish On The Romanian Lexic - 2Classes METHODOLOGICAL SUGGESTIONS - Study Units : ICT Concepts - 6 Ore The Solar System – 8 Classes Planet Earth - 8 Classes 7 Physical Measurement Units Of The International System S.I.. Chemical Elements -Periodic table of chemical elements 1-2 ore Insight into the History of Planet Earth 1-2ore Globe Population 1-2ore Healthy Food 1-2 classes Languages spoken on Earth 1-2 classes Suggested pedagogical approaches: individual/group work, interaction project-based work, demonstrative / experimental activities. Teacher: Silvia Moraru Part II - Didactic design of 12 lessons within the ICT and 4 school projects. STEM INTEGRATED LESSON PLAN TEMPLATE

Title

Our planet-Earth

Authors

Chemistry -Dr.Silvia Moraru
Physics – Dr Silvia Moraru
Mathematics -Dr.Silvia Moraru

Summary-

Lesson1 Earth- general caracterization (physical quantities and units of measurement)

Lesson 2 - Planet Earth -chemical composition -oxygen production (photosynthesis)

Lesson 3 - Planet Earth seen ..... from above (together with the Romanian cosmonaut Dumitru Prunariu)

Licenses

Lectia 1 -sumar :

- **Sistemul solar (joc in scratch) realizat de elevii clasei aVIII-a**
- **Descrierea planetei Pământ (rază medie , circumferintă ,suprafață , volum ,masă**
- **Reactualizarea mărimilor fizice studiate la fizică**
- **Rezolvare de probleme practice**

Lesson 1 - Summary: - The solar system (scratch game) made by the 8th grade students - Description of the planet Earth (average radius, circumference, surface, volume, mass - Updating the physical quantities studied in physics - Solving practical problems

L Lecția2-sumar -sumar :
-reactualizarea unei povesti minunate despre planata noastră
-universul explicat in 5 minutes
-povestea celor 118 elemente chimice ce există pe planeta noastră
-descrierea rolului hidrogenului și oxigenului pentru viata pe Pământ
-cum se produce oxigenul
-să învatam despre oxigen cu Theodora (produs multimedia ce cuprinde si un experiment)
-curiozități despre oxigen

Lesson 2 - Summary: -reacting a wonderful story about our planet -the universe explained in 5 minutes- the story of the 118 chemical elements that exist on our planet -description of the role of hydrogen and oxygen for life on Earth -how oxygen is produced -to learn about oxygen with Theodora (multimedia product that includes an experiment) -curiosities about oxygen

L LLLectia 3-sumar:
-descrierea planetei Pământ (tipuri de mișcări ,rotație și revoluție)
-formarea zilelor și noptilor
-întrebări adresate cosmonautului român Dumitru Prunariu despre planeta Pământ vazută din spatiu
Lesson 3-summary:

-description of the planet Earth (types of movements, rotation and revolution) -forming days and nights -questions addressed to the Romanian cosmonaut Dumitru Prunariu about the planet Earth seen from space

Aims of the lesson 1 (13-14years)
At the end of the class students must:
O1 -to identify the Earth's characteristic dimensions
O2-to recoqnize the 7th physical quantities
O3-to carry out calculations on the fundamental physical margins
Aims of the lesson 2 (13-14years)
At the end of the class students must:
O1-to list the planets of our solar system
O2 -to list at 15 chemical elements as part of the chemical composition of our planet
O3 -to explain how to obtain oxygen through photosynthsis
O4 -to explain the chemical composition of water
O5- to conduct chemical experiments to obtain water and oxygen in the laboratory
Aims of the lesson 3 (11-12 years)
At the end of the lesson students will be able :
O1 -to characterize the planet Earth -types of movements (rotation and revolution)
O2-to explain the formation of the day and the seasons
O3-to identify the north and souther hemispheres
O4-to explain why the earth wants to colonize other planets (example-Mars)
O5-to learn with the first Romanian ,Cosmonaut Dumitru Dorin Prunariu ,who saw the planet Earth from .....above .

The trades of the future-Connection to STEM careers doctors, teachers, meteorologists, cosmonauts, researchers in earth physics, chemistry, biology Real life questions Where is planet Earth located? Is the Solar System unique? What is the role of the Sun and how does it produce energy? What is light? What is photosynthesis? How is the planet Earth seen from space? What job do you have to pursue to be a cosmonaut? Age of students-13/14years

TimTime e

Preparation time: Teaching time: Preparation:4hours STEM Lesson 1 -2hours making the game in Scratch -1 hour carrying out learning activities- 30minutes finding sources online-30minutes

STEM Lesson 2 -4hours and 30minutes making multimedia products -Let's learn with Theodora about photosynthesis and oxygen -3 hours to learn about oxygen-1 hour designing the didactic activities of the lesson -30 minutes finding sources online -30minutes STEM Lesson 3- 2houres choosing learning activities - 30 minutes discussion with cosmonaut Dumitru Prunariu -30 minutes discussion with students in class -30 minutes choosing online sources - 30 minutes Teaching time and mode of implementation

TeaTeaching resources (materials & online tools)ching resources (material & online tool

Lesson1 Earth- general caracterization (physical quantities and units of measurement

The learning activity presents an activity of updating the concepts of the solar system.

https://scratch.mit.edu/projects/307590623

https://docs.google.com/forms/d/e/1FAIpQLSfyMK1RULg6P4tgC2BBzeipVcILKw2N7j8FzRzUqCiAKm2smA/viewform Online tools:Follow the Measurements -Length section http://www.chem.uiuc.edu/webfunchem/genchemtutorials.htm

Follow the Measurements -Length section http://www.chem.uiuc.edu/webfunchem/genchemtutorials.htm

Lesson 2 - Planet Earth -chemical composition -oxygen production (photosynthesis)

https://docs.google.com/forms/d/e/1FAIpQLSdCFTtuRSOidmb25PVNLIGmFBxVoomih_j7E4OuuZV0B2lmdg/viewform Materials : https://www.youtube.com/watch?v=Xz7RzKcTgJ8&feature=youtu.be

Online tools : https://drive.google.com/file/d/10s6t48sQAcjxScvyFDn9uWKuPL0xev64/view

https://drive.google.com/file/d/12CxvsHgpdjjEJkIrKz70w7EWIkF0Tcbp/view

Lesson 3 - Planet Earth seen ..... from above (together with the Romanian cosmonaut Dumitru Prunariu)

Materials: Online tools :https://docs.google.com/forms/d/e/1FAIpQLSdO5y1sg0YpHqO9qXRVIYED1dsMhYd7x6Gk4uFgB-DuDFm9lw/viewform

CV-Cosmonaut Român ,Dumitru Prunariu https://www.youtube.com/watch?v=YNCQ9zXkWsU Quiz https://docs.google.com/forms/d/e/1FAIpQLScIABS9eQDAQ27I8UKZpSZbhN6g_pc9-PXQOW_C-M7LlSELvQ/viewformDumitru Prunariu -Material de prezentare https://drive.google.com/drive/u/0/folders/0B4QvDLCmCp2gWUd2b3VwTXVWb0U https://docs.google.com/forms/d/e/1FAIpQLSepGBgRVgB8nokvijXR2ULkPtybutHbWTIIOOHoQyANTrxCFA/viewform?vc=0&c=0&w=1&gxids=7628 Lectia online Oculul Pământului in …..60minutes -26mai 2020 https://drive.google.com/drive/u/0/my-drive https://drive.google.com/file/d/1Kdi9ZKb9qv7bbI_RRZFxsIz2Rb2EuIPm/view?ts=5fb116ee

21st century skills

This lesson plan will enhance among the students the following skills, defined as 21st century skills: 1. Critical thinking: The intellectually disciplined process of actively and skilfully Conceptualizing, applying, analysing, synthesizing, and evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication 2. Creativity: Thinking about a task differently, finding new approaches and solutions. 3. Collaboration: Interacting and engaging while working toward a common purpose. 4. Communication: Conveying information effectively and efficiently, listening,

observing. 5. Technology literacy: Using technology safely, responsibly, creatively, and effectively. 6. Flexibility: Adapting and feeling comfortable in different and new circumstances 7. Leadership: Organizing and motivating other people to reach a goal. 8. Initiative: performing actions without always being told what to do. 9. Productivity: Setting and meeting goals, prioritizing needs, managing time, working

ethically, collaborating, and cooperating

Lesson Plan

The implementation of integrated STEM teaching and learning is facilitated by the use of specific pedagogical

approaches (PBL, IBL, etc). In order to facilitate the research done by the teachers and the design of activities by teachers.

Name of activity	Procedure	Time
1st Lesson		
Brainstorming and discussion	Activity 1 involves a game of updating the planets in the solar system, but not before discussing with students what we will be working on in the lesson.	5min X8=40min
Discussion and preparation for learning about Earth **practical applications by doing = learning**	Learning activity 2 involves updating the notions of physical quantities-length, area, volume, mass. The teacher can use a real / virtual model of the planet Earth to make correlations between the notions studied and the real dimensions of the Earth. Activity 3 conists in solving a practical problem. Activity 4 leads students in learning applications of physical quantities and units of measurement using the site indicated in google forms. Learning activity 5 is dedicated to learning the application of physical size - length and item 3 is a direct application. Activities 6 and 7 are dedicated to updating the physical quantities volume and mass, followed by solving 2 practical problems. Activity 8 has the role of making the connection between physical quantities and units of measurement using the notions of mathematics. Items 9,10,11,12 have the role of giving feedback to the teacher so that he can design the next lesson, but also to the students who still have work to do.	202020min
2nd Lesson		
STEM Subject 1		
STEM Subject 1		
Learning products	*If you wish to share more materials that complement the text, please include them in the Annexes section and refer to them in this section as well.*	
3rd Lesson		
STEM Subject 2		
STEM Subject 2		
Learning products	*If you wish to share more materials that complement the text, please include them in the Annexes section and refer to them in this section as well.*	
4th Lesson		

STEM Subject 3/non-STEM subject		
STEM Subject 3/non-STEM subject		
Learning products	*If you wish to share more materials that complement the text, please include them in the Annexes section and refer to them in this section as well.*	

Assessment

Initial assessment

Formative evaluation

Final assessment

Student feedback

Teacher feedback

The teachers are expected to provide feedback on how the lessons were received and implemented.

The Use of Collaborative Learning Tools in Teaching Routine Skills in Chinese Martial Arts

Meihua Piao
Graduate School, Emilio Aguinaldo College, Manila, Philippines

Abstract - Collaborative learning methods using technology tools provide an opportunity to learn even outside the classroom. This flexible method is now exploited by many teachers across the world due to the global health crisis. Hence, the intention of this study is to investigate the effect of collaborative learning on the performance scores of 50 students enrolled in a Wushu class in a selected high school located in Beijing, China. Results show a positive increase in the post-evaluation results after a two-week utilization of collaborative tools. It can be said that technology is a tool that levels the playing field for the students. Hence, this paper vouches on the importance of equal access to various technologies for learning to ensure that students are given the opportunity they deserve.
Keywords**:** Wushu, Martial Arts teaching, collaborative tools, online instruction**.**

1. Introduction: The COVID-19 pandemic has changed the dynamics of classroom learning all around the world. For more than two years now, educators rely on online learning to deliver their lessons. The Ministry of Education issued a memorandum to address the pressing need of students across the country due to the halt caused by the pandemic. Physical Education faced major difficulties transitioning to this kind of modality due to lack of educational tools, information, and challenges and constraints in conducting physical activities at home. New online models and tools must, therefore, be proposed to address these concerns. (Zheng et al., 2021) **Collaborative** learning is not a new teaching method. Reports show that this method promotes collaboration, facilitates proactive learning, and encourages meaning encounters in the classroom. With the use of collaborative learning tools, teachers can utilize this method to create a more flexible and interactive environment. (Banteli & O'Dwyer, 2017) In this age of technology, there are many tools that support collaborative methods to extend learning in that class. Contrary to some beliefs, technology does not seclude learners in their own virtual space (Johnson & Johnson, 2014). Educational institutions are now focused on investing and collaborating with technology industries to roll out learning systems and platforms. Educators are now focused on training and development to keep up with the changing paradigms. Collaborative learning technologies are believed to build up knowledge and promote meaningful interactions among learners (Hsu & Shiue, 2018). It allows students to actively participate and work together to attain a common goal (Lutakova & Antala, 2017). With the COVID-19 situation in China, martial arts teachers and coaches feel the need to utilize collaborative learning tools to maximize interaction among students. With proper facilitation and well-planned lessons, students can learn and work together to be able to perform specific tasks. The idea behind this method is to encourage them to help one another and share their knowledge and skills. Moreover, teachers can also promote ethical values and social skills such as respect, confidence, independence, accountability, leadership, and responsibility. (Lutakova & Antala, 2017) The interest of this study is to investigate the effect of collaborative learning on students' performance in Martial Arts. Furthermore, it is expected to report the graded performances of the students prior and after the usage of the university's collaborative online learning platform.

1.1 Research Questions: This study aims to investigate the effect of collaborative learning on students' performance in a selected learning tasks in Martial Arts. Hence, it sought to answer the following questions: **1.** What are pre-evaluation and post-evaluation result of the student-respondents based on the following criteria: 1.1. Strength;1.2. Balance;1.3. Precision;1.4. Technique; 1.5. Entrance and exit of the routine? **2.** What is the significant difference between the pre-evaluation and post-evaluation results of the student-respondents in terms of: 2.1. Strength; 2.2. Balance; 2.3. Precision; 2.4. Technique; 2.5. Entrance and exit of the routine? **3.** What is the significant difference between the pre-evaluation and post-evaluation results of the student-respondents?

2. Review of Literature: Cooperative or collaborative learning incorporates "social interdependence theory which sets forth positive (cooperative) and negative (competitive) interdependence" (Deutsch, 1949, 1962; Johnson and Johnson, 1989, 2005, 2009 as cited by Johnson & Johnson, 2014). It is a method that promotes social engagement and interactivity among learners (Brindley et al., 2009). Moreover, the theory of collaborative learning has four elements— situation, interactions, processes and effects—and their interrelationships characterize collaborative learning. Based upon a widely, but not universally, accepted theoretical paradigm that defines learning–knowledge as the outcome of social construction processes shared among participants in learning environments (Dillenbourg 1999; Lave & Wenger, 1991; Vygotsky, 1978 as cited by Oh, 2011) Collaborative technologies, as one of the most important applications of e-learning, have triggered a new wave of free online wikis, word processors, spreadsheets, presentation, and discussion forum software packages since their introduction in 2005. (Rienzo & Han, 2009 as cited by Hsu & Shiue, 2017). Educational scholars are interested in collaborative technologies because they can provide students with a context/platform in which to discuss, exchange, and share their opinions and ideas, as well as collaboratively construct their own knowledge. (Hsu & Shiue, 2018) In addition, project group communications and activities using Google Applications can be viewed as collaborative tasks within a social network environment, and thus instructional designers can serve as "weak social ties" and formulate activities and strategies to foster "strong social ties," which were associated with strong investments of time, reciprocity, and

sharing among group members (Wellman, 1997; Cheung and Vogel (2013) as cited by (Hsu & Shiue, 2018). Moreover, cloud-based applications like Google Drive, Zoho, Etherpad, and Evernote support collaboration among students by sharing information, creating shareable links, editing as a group, inserting comments and suggestions of each group member and teacher in-charge. Communication and teleconferencing tools such as Voov, WeChat, Skype, Viber, Skype, and Tencent can be utilized for meetings. During these sessions, the teachers or group leaders can actually open cameras, share screens, create polls, send students to other rooms, chat, and draw using a whiteboard. (Mallon & Bernsten, 2015) There are numerous learning tools to choose from. Commercial software applications, open-source platforms, 3D virtual worlds, and massive open online courses (MOOCs) are examples of digital learning environments mentioned in the literature. Blackboard, Moodle, Sloodle, and Coursera are examples of online learning platforms. Desire2learn, Sakai, OLAT, eCollege, and Dokeos were among the other open-source platforms identified in the literature. (Bokhari and Ahmad (2011) as cited by Banteli & O'Dwyer, 2017) According to Humes (2015), collaborative learning projects promote dramatic increases in engagement, which leads to deeper understanding and higher-level thinking. These findings have only been observed in learning environments where students are taught how to work in collaborative groups, have a structured project with goals, roles, and outcomes, and receive regular feedback from teachers and peer group members on individual contributions and personal group effectiveness. However, Yu and Jee (2021) emphasized the importance of providing quality feedback, encouragement, and preparation are factors to consider for effective implementation.

3. Methods: This descriptive quantitative research aims to determine the effect of collaborative learning tools in a virtual Physical Education classroom. The 50 respondents of this study are currently enrolled in Wushu class (Chinese Martial Arts). The researcher created an activity geared towards integrating collaborative learning with use of technological tools as aid. The group of 50 students were divided into 10 groups with 5 members in each group. The objective of the groups was to perform the changquan routine (long fist) and practice via synchronous online meeting on specific dates for two weeks making sure that the teacher in-charge was invited during every practice session. The teacher in-charge made regular visits to their virtual practices. The criteria for evaluation were thoroughly explained to them during the initial visits. After a 2-week practice, each member was asked to record the same routine and send it to a cloud-based drive for evaluation and final editing. All members were asked to evaluate the quality of the tasks submitted and were asked to critique their group mates' performances. In the event that the majority of the members felt that the submitted performance video was unsatisfactory based on the criteria set, the member was given an ample opportunity to redo and resubmit his/her part. Once all the members agreed on accuracy and quality of routine task, the assigned video editor consolidated the video clips for final editing and uploaded it on the university's online learning platform. The researcher evaluated the performance of each group and gave individual scores per member of the group based on a rubric for evaluation with following criteria: 1. strength; 2. balance; 3. precision; 4. technique; 5. entrance and exit of the routine. Each criterion is assigned with the highest of 20 points. Descriptive (mean, percentage) and inferential statistics (t-test) were used to represent the scores of the pretest and post and its significance value.

4. Results and Discussion: Table 1. Participants' Profile

Gender	N	Percentage
Male	29	58%
Female	21	42%
Total	50	100%

This table pertains to the total number of respondents involved in this study. Results show that there are a total of 50 participants with 29 male or 58% and 21 or 42% female. **Table 2. Pre-evaluation and Post Evaluation Result**

Criteria	Pre-evaluation	Post-evaluation

	Mean Scores	Mean Scores
Strength	**8.96**	**10.32**
Balance	**8.96**	**9.24**
Precision	**9.58**	**10.44**
Technique	**9.78**	**10.82**
Entrance and exit of the routine	**9.12**	**11.30**
Overall Score	**46.38**	**62.56**

Table 2 shows the overall score of the student during the pre-evaluation and post-evaluation activity. As seen on the table, the mean scores for each criterion (strength, balance, precision, technique, entrance and exit of the routine) were taken to compute the sum and generate the overall score of the class. Data shows that the student-respondents garnered a total score of 46.38 for pre-evaluation and 62.56 during the post-evaluation. A positive increase was noted in the students' performances in the pre-evaluation and post-evaluation scores. This increase can be attributed to the monitoring, time allotment, and relevance of the task given to the students. These elements were mentioned in the MDE 601 and MDE 608 models proposed by Brindley et al., (2009). According to the model, collaborative group activities must contain facilitation of learner readiness, scaffolding methods, autonomy, clarity of task, promotion of community spirit, proper monitoring, delegation of appropriate tasks, and provision ample to accomplish the task. **Table 2. Comparative Analysis of Pre-evaluation and Post-evaluation Result**

Treatment	**N**	**df**	**M**	**SS**	**s^2**	**p-value**	
Treatment 1 (Pretest)	50	49	46.5	1264.5	25.81	.00001	Significant
Treatment 2 (Pretest)	50	49	52.12	1723.28	35.17		

When mean scores of pre-evaluations and post-evaluation were tested for difference, it was determined that there seemed to be a marked difference in the performance scores of the respondents (p-value = .00001) when alpha is set at 0.05. Therefore, it can be gleaned that collaborative learning with the use of technologies is indeed effective when students are guided by their respective teachers. It is evident that teachers are responsible for leading the collaboration and are expected to closely monitor the students by supporting their needs, net up schedules, and create engaging opportunities for learning (Bantelli et al., 2017). Martial Arts classes in Physical Education entails students to do physical exercise and activities. Zheng et al. (2021) pointed out that teachers must use applications and tools to enrich the quality of learning in the classroom. Similarly, it was found out that the students' physical performances show improvement during the summative evaluation as seen on the progress report of individual students. **Table 3. Pre-evaluation and Post-evaluation Per Category**

Category	**Mean Pre-evaluation Score**	**Mean Post-evaluation Score**	**t-value**		**Interpretation**
Strength	**8.96**	**10.32**	-2.9385	.004112	Significant
Balance	**8.96**	**9.24**	-0.48968	.625453	Not significant
Precision	**9.58**	**10.44**	-1.45636	.14849	Not significant
Technique	**9.78**	**10.82**	-1.99178.	.049178	Significant
Entrance and Exit	**9.12**	**11.30**	-4.44319	.000023	Significant

This table gives you a closer look at the overall performance of students in each category. The researcher takes this test further by running the comparison of each criterion by subjecting it to t-test for related samples. The group comparisons showed varied results as shown in Table 3. The categories of strength, technique, entrance, and exit showed significant increase in the scores (strength = 8.96 and 10.32 (p-value of .004112); technique = 9.78 and 10.82 (p-value of 0.49178); and entrance and exit = 9.12 and 11.30 (p-value of 0.000023). On the other hand, it can be noticed that the scores in the categories of balance (8.96 and 9.24 = p-value of .625453) and precision (9.58 and 10.44 = p-value of .14849) showed no significant improvement in the pre-evaluation and post-evaluation performances. The result proves that collaborative learning tools play a significant effect on the performance of the students in the aspects strength, technique, and entrance and exit routines. Thus, it suggested that Wushu instructors must utilize these tools and exploit its advantages to improve student performance. Although it did not alter all the factors required for students to collectively master routine due to the researcher's time constraint, the significant difference in scores demonstrated its efficacy on selected categories. The study of Tarun (2019) proves the importance of ICT-related collaborative tools in teaching. The proves that students have a positive response when use as a strategy in teaching.

Conclusion: The collaborative learning method in teaching martial arts provides positive outcomes in the learning outcomes. When students are given proper guidance and facilitation by teachers, it can bring a more meaningful learning experience. Technology is a tool that levels the playing field for the students. This paper vouches on the importance of equal access to various technologies for teaching and learning. Based on the result, there was an increase in the evaluations score after a two-week practice. Hence, the research believes that collaborative learning must be fully explored as a strategy. In a skill-based subject like Martial Arts, many teachers may feel adamant on the alternate methods in teaching. However, at this time of uncertainties, they must be led to realize

that these tools must be part of their methods. Wushu teachers must be taught to be more creative in the use of ICT-related tools to be able maximize participate most especially in a remote learning modality. Cui (2016) argues that effective use of multimedia technology promotes effective martial arts routine delivery. It enables students to use technology tools to access and monitor complex routines. With a collaborative platform, accessibility is thus no longer a concern. Wang (2019) refers to this as a "super platform" where students easily navigate lessons whenever and wherever they are. As a future direction of this paper, the researchers recommend expanding sample size by looking into performance of students across year levels. With the wide plethora of collaborative tools, selections of more complex learning management systems, applications, and tools may be investigated to further prove its efficacy in the teaching of other skills-based courses.

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"Higher, Faster, Stronger": Championing Classroom Teaching

Zhao Qingjian

Graduate School, Emilio Aguinaldo, Manila, Philippines

Abstract - This qualitative narrative-autoethnography research explores my journey as a Wushu Athlete into becoming a teacher. My research intended to cull my life stories and experience to elucidate my attitude, approaches, and visions as a teacher. My personal stories were drawn from my personal accounts of becoming a Wushu Olympic champion and the journey that led me into the noblest profession of all. Given the opportunity to teach Wushu at a prestigious university, I am privileged to utilize my techniques and skills and share them with my students. My idea is to shape my ideologies in teaching based on my athletic journey. Through this narrative, I discovered that my experiences placed me in a good stead as an effective classroom teacher. While I realized the importance of theoretical foundation and practical knowledge in teaching Wushu, I must emphasize that teaching is also about creating relationships and instilling the right attitude among students. Keywords: Autoethnography, Wushu, Teaching, Experiences.

1. Introduction: Stories are powerful. It can be utilized to educate others and provide substantial accounts worthy of telling. Autoethnographic showcases my "life" (Neyman, 2011). As a researcher, I believe that when we give people voices where they share their life stories others would benefit from it. A narrative inquiry centers on this type of methodology which highlights "life story interviews, oral histories, photo voice projects, biography, autoethnography, or other human experience" (Ford, 2020). The autobiography of the informant helps in forming significant lessons learned as he traverses towards his mission of becoming an educator. Contained within this study are stories of my simple beginnings as a successful Martial Arts professional and the obstacles I encountered and my triumphs and tribulations in the field which helped me draw inspiration and motivation of becoming a teacher. The Chinese government is known for its unique and magnificent cultural inheritance. Martial Arts also known as Shaolin Kungfu is an embodiment of this physical and artistic culture which dates to Xia Dynasty around 4000 years ago. Its distinct training methods, principles, and approaches makes it prominent around the world. Many experts regard it as a work of art that requires a certain mindset, training, and skills. Moreover, its purpose goes beyond self-cultivation as many people commit to this practice for the purpose of serving the country. Students commit themselves to a life of persistent training and requires a mouthful of patience and determination to master the skill. The core foundation consists of the main stances and footwork, leaps, fist and foot attack/defense techniques, as well as essential stretching and physical preparation. (Nešković, 2020; Wang & Liu, 2018) In the past years, Martial Arts caught the attention of researchers from a wide range of academic disciplines, including psychology, kinesiology, sociology, education, and health (de Aguiar, 2018). Most research is geared towards understanding and exploring the experiences of athletes and their motivation to reach their goal. With the kind of training and discipline ingrained among Martial Arts athletes, the researcher assumes that the extensive experience in the field gives a teacher-athlete a unique opportunity to incorporate a distinct style, strategies, and method in the teaching-learning process. Therefore, the main purpose of this paper is to immerse these methods by exploring my personal journey towards becoming a teacher. Putting this mind, my central focus to elucidate my techniques and methods which is culled from my extensive and rigorous experience as a successful athlete.

1.1 Statement of Purpose: In this research, the research utilized the stories of a Wushu athlete and his significant experiences in the field as an athlete and in the classroom as a Martial Arts teacher and coach. Therefore, this paper explored personal accounts and his stories of triumphs and tribulations that led him to where he is right now, a teacher and coach. Moreover, culling from his life story, it sought to describe his methods, traits, and visions as an educator. With this, the research used the following research questions: 1. What is the respondent's narrative about his life as an athlete? 2. What experiences directed the respondent to understand the importance of his background to his profession as a teacher? 3. How did the informant's used his experience as an athlete in the classroom as a

2. Literature Review:

2.1. Martial Arts - Martial arts education in China dates to the Shang and Zhou dynasties, and it included a significant component—shooting, which is part of the martial arts. During the Zhou Dynasty, it was highlighted as a form of arts and ceremony which was enunciated with the development of "six arts." In 1911, with the

development of nationalistic ideology it incorporated in Physical Education across high school level and elementary level in the 1961. (Wang & Liu, 2018) It is believed that Physical Education in the form of Martial Arts improves that quality of life. The incorporation of Asian martial arts in physical education might be viewed as an opportunity to learn about the various possibilities available to people who want to pursue martial arts as a pastime (Theeboom, 1999). On the other hand, the University Martials Arts education model goes above and beyond the basic Martials arts education. It is emphasized that this kind of education can enable pupils to improve their behavior and keep a healthy mind and body to help them go through these challenges. (Huang, 2019) Taningco Academy of Martial Arts (TAMA) established the 7 teaching approaches of Martials Arts. These are: "1. goal of teaching; 2. opening and closing ritual; 3. ability groups; 4.) sparring, 5.) use of traditional or efficient techniques; 6.) teaching techniques by an analytical of a global method; and 7. response to inappropriate behavior during training (Vertonghen, Theeboom, & Cloes, 2012 as cited by Overton, 2017)."

2.2. Wushu Education: According to Shugen, the "morality based" cultivation education that adheres to the ancient virtues of "benevolence, righteousness, propriety, faith, wisdom, filial piety, and loyalty" is what wushu education in schools is all about. Through its comprehensive exercise program, martial arts also focus on developing students' healthy personalities, firm beliefs, and self-improvement spirit in addition to their physical fitness. Wushu is a martial art that has a structured theory and meaningful attacking and defensive impacts (2020). Shugen adds that Wushu instruction in schools is also a component of formal education, which has several educational benefits. The Wushu idea of martial arts can encourage students' sense of competitiveness while also offering students' adolescent combat instincts an appropriate catharsis and release space (2020). China has always been referred to as the "state of etiquette," as it promotes the culture and has good traditions in the field. The traditional Chinese Wushu culture places a strong emphasis on cultivating both internal and outward skills as well as a balance of toughness and gentleness. Wushu practitioners ought to be polite even though they are not overly detail-oriented and open-minded (Shugen, 2020).

2.3. Experience of Teachers Teaching Wushu: Wushu, a traditional sport with a lengthy history, a comprehensive training program, and a systematic theory of martial arts, has grown to be a significant component of physical education in schools and has a special place in the educational process. Wushu is intimately tied to moral education in China since it exhibits elements of traditional Chinese ideology and culture. Therefore, in order to advance both school Wushu education and moral education, it is crucial to view the school Wushu education plan from the standpoint of moral education, as well as to comprehend fully and unearth the moral values that are embedded within it (Shugen, 2020). Bai (2017) notes that in martial arts teaching relevant experiences were combined with Chinese martial arts teaching in Shanghai, which was a demonstration of Chinese martial arts teaching at a relatively advanced level. Students' self-learning was emphasized, students were used as teaching centers, and the emphasis was on developing students' capacity.

2.4. Athlete to Teacher Experience: According to Cho et al, former athletes' school-life adaptation subfactors were influenced by the exercise values (general, moral, and status) and subfactors (school activities, teachers, rules, and academic activities). More specifically, all the subfactors were influenced by the general and moral values (2018). The latter part of Cho's study suggests that sport instruction can increase academic performance and learning, encourage the sociability required for school life, and foster the collaboration, camaraderie, and school affection required for organizational life. Furthermore, it is anticipated that participating in healthy physical activities will help adolescents adjust to school life by inspiring confidence, cooperation, a spirit of service, and sociability; additionally, the adolescents will be able to experience pleasure, emotional purification, and a sense of accomplishment through their participation in these activities (2018).

3. Methods: This paper is an auto-ethnographic narrative research which was developed by Humphreys (2005). Neyman & Andersen (2011) presented their auto-ethnographic research in "vignettes" of personal stories which reflected perception of how to become an effective teacher. Hence, I anchored my approach using my personal vignettes and my self-published autobiography as data sources. I used this approach to provide a deeper understanding of my perspective as a successful athlete-teacher. Taking that in mind, the research purposefully

chose myself as an informant based on my: 1.) experiences as a Martial Arts teacher; 2.) 5 years of teaching experience in a university and Excellent performance rating as per administrative record; 3.) unquestionable record and reputation in his field of martial arts. These were deemed important to make meaningful and rigorous discussion and analysis.

4. Results and Discussion:

4.1. Informant's Profile - I am a well-known Wushu Olympic Champion and an active member and officer of the reputable Wushu organizations in China and other countries. I regularly visit other countries as a resource speaker, judge, trainer, teacher, coach, and guest lecturer and represented my country to influence young people and enthusiasts to venture into Martial Arts. I also served as a leader to create a Center of Wushu Internship somewhere in the West and mentored students attending this internship program. Over the years, I actively promoted Wushu culture, combining the artistic natures of the West and East as well as the Olympic spirit of "higher, faster, stronger". I have always strived to share the amazing traditional cultures of China and will continue to do that as my life's work.

4.2. Vignette 1: "Shaolin Temple" - I was born in March 1978 in a historical village called Shandong. I grew up watching "Shaolin Temple" starring Jet Li. "Are those flying men flying over the rooftops and leaping over the walls? Is it real? I would ask. I began imagining myself flying over the roofs and walls and running through the water, fully clothed in Hanfu. The idea of the boy being trained in the movie "18 Bronze Men" thrilled me. I never stopped thinking. As I pondered, his feelings grew deeper and deeper which sometimes brought me to visions and fantasies of what I envisioned myself to turn into. As a child, I became extremely bound to Martial Arts. I remember, I must have watched that movie a thousand times. I imagine myself to be the main character practicing at the Thousand Buddhas Hall. Every day, dreamt of being on the same scene practicing the power of boxing and putting harmony to my actions as I felt the breeze on my face. I could vividly recall the sunken floor tiles caused arduous practices and countless leaps and jumps. I told myself, ``I would not stop until I master the real Kungfu."

4.3. Vignette 2: Learning from the Master - At age 5, I was sent by my parents to study Wushu in Dongpin with the hope that physical training would help me in improving my health. You see, I was quite sickly when I was a child. I was given an opportunity to study in Shaolin Temple. It was not easy in the beginning. I had to wake up as early as 5 in the morning and start a full day's practice. At first, I couldn't adjust to the lifestyle. It was boring. Despite the toughness of the training, deep down, I was determined to excel. In no time, I adjusted to the life in the temple and started to enjoy my stay there. My efforts paid off and earned recognition from my mentors and I was sent to the provincial team to train even harder. Within a confined training center, I had to navigate through studies and life in general. I learned to socialize and interact with the other trainees. This is where I met my first coach. He was very kind. He took care of me and encouraged me to do well. He took me under his care. One time, I set my heart to be selected as the representative of a Wushu provincial competition. I was overly ambitious. So, I trained very hard in solo until very late at night. My coach could stop me from it. I was stubborn. I didn't listen to anyone. I only listened to the voice inside my head telling me to keep going. The next day, my whole body ached. I injured myself. I was so devastated. I took a stern scolding from my coach and lost the opportunity to represent the team. I took this as a lesson. I started to listen to my coach. I became more systematic and learned to do things in moderation. It is important to allow your body to recover and rest. I took every lesson by heart. But I never stopped aiming for excellence. As a result, I won the National Championship.

4.4. Vignette 3: The Road to Success: "According to a Chinese proverb, one who excels in academics and Martial Arts is an outstanding student." My academic journey began when he decided to study in a university and joined their Wushu team. My 4 years were dedicated solely for knowledge building and National competitions. I became a rising star in a very short time. "I worked hard for it. I was focused on achieving my goals. My dedication and hard work earned me a ticket to the Beijing Olympic Competition. I was prepared to show the world the real spirit of Wushu. At the age of 30, I was considered a veteran in Wushu. "You must understand that at this age, you get exhausted easily. During training, I was physically and mentally exhausted. My diet, rest, and strength were scientifically managed. I improved tremendously. "I can still remember the day of the competition as if it were

yesterday." That was the year when Chinese Wushu was shown to the world. I showed the charisma of the sport. I captured the hearts of the judges and audience who witnessed my spectacular performance and showmanship. I received the first gold medal with pride knowing that I represented my country with honor.

4.5. Vignette 4: Higher, Faster, Stronger: A Champion in the Classroom: I knew this day would come. Since I won the 2008 Olympic Wushu Championship, everyone suggested that it would be better for me to stay in the professional team to be a Wushu teacher. But, at that time I did not want to be a professional team teacher. I thought university was a better choice. With students from all over the world have different cultural backgrounds, I want to tell them my personal experience and wushu experience. In addition, through the students I teach, I let more people understand Wushu and Chinese culture. Teaching and sharing my skills to young athletes is what I hoped for. This opportunity gives me a chance to serve my country and offer my skills for zealous learners of Martials Arts. I think that this sport represents our culture and upholds our heritage. A year after my big win, I found himself within the confines of a school as a teacher. I can recall my first class with fondness of how it all began. During that class, I discovered that there is a big gap between the students in the professional team and the students in the semi-major. It is important to build on the foundation of students using theories and concepts. To embrace my role as a teacher, I had to revisit and recall basic theories to prepare the students for practical application and practice of the skill. Like any other teacher, I spent hours preparing his lessons to prepare himself for class the next day. I don't think it is difficult. First, Wushu has brought me a lot of spirit, such as the spirit of hard work, perseverance, and courage. Secondly, I am very confident in my major, and I have tried my best to infect and motivate students. I also enjoy this process very much. I have always believed that I can be a successful teacher. First, I am relatively well-known in the field of Wushu, and everyone knows me. Secondly, the students adore me very much. They will listen to my class very carefully despite that fact that the training is very hard. Finally, because I have a deep understanding of Wushu technology, the knowledge I impart is easy for students to understand. I am relatively close to them. I think that in terms of communication and student management, I am successful because they like my class style. Being well-known in the field has its perks and I used it to my advantage. Combining my experience with my teaching method creates a remarkable training effect. Thus, spells out the difference between my methods from other teachers. An athlete's natural strength is technique. Classroom demonstration is one of the most effective styles in teaching Martial Arts. I regard my students as their own children. No matter how busy I am, I will patiently guide students to find problems and help them solve them. I know that being a professional martial arts athlete is very tiring, so in teaching. I am inclined to combine my lessons with sports experience, so that students can experience the fun in a boring class. My main strategy in the classroom starts by instilling a sense of responsibility among my students. Small things count. I emphasize that this can be done at home like cleaning their rooms and helping their parents in household chores. I believe in the sense of obligation. Responsibility and mission go together. In fact, I believe that a man of responsibility is a man of mission. Creating a good relationship with his student was one of my approaches. Teachers and students are also teachers and friends." Teachers and students do not only have a teacher-apprentice relationship, but also a friendly relationship. These two ideas are the reasons why I want to be a teacher. I use my teaching experience to promote the Wushu spirit to the world. I think it is very effective. Students can intuitively feel the teacher's style and charm. By imitating the teacher's actions, students can mobilize their emotions and make them actively participate in acivities. As an athlete the training method is more to improve one's skills and satisfy oneself. My teaching method is to satisfy the needs of the students and make them learn more knowledge. I believe that for students to learn this skill they must be exposed to real-life scenarios. I encourage my students to join competitions and organized training in various parts of the world. "One day, you will become a Master, a real formidable master." This is how I inspire my students to do better in his class. Endurance and perseverance are key factors in becoming a successful athlete, teacher, and a coach. I am a persistent teacher. In fact, students who performed well in his class went to the United States as exchange students. The program motivated many students to join his classes. During their experience, students improved their skills in Wushu and the English language. Hence, serving two purposes simultaneously. I also served as a leader to create a center in the US and mentored students attending this

internship program. I have also mentored students at the Capital Institute of Physical Education to exchange and perform many times. I represented the Confucius Institute, teaching and performing in many European countries. Over the years, I have actively promoted Wushu culture, combining the artistic natures of the West and East as well as the Olympic spirit of "higher, faster, stronger." I have always strived to share the amazing traditional cultures of China and will continue to do that as his life's work. Every moment, every punch, and every kick carry the athlete's honor and dream. I must pass on the spirit, morale, and dream to the next generation. There could be a limit to compete in this sport. But there is no limit to promote it. So, it became my mission to promote his sport to the world. I joined every Martial Arts community and organization. It became my mission to connect to the world through his sport. I thought that a school experience would be a good place to start. I wanted them to share his personal and Wushu experience. Chinese Martial Arts will not merely exercise the body physically, it passes on the spirit of self-improvement and determination to the young students. It will be the foundation to a better future for the child. I want my students to remember that. He added that Wushu is a show-window for Martial Arts Spirit and Chinese culture. Students must be ingrained with pride and honor to their culture.

Reflection: It all began with my fascination with the idea of flying rooftops and leaping over the walls, the young martial artists began to dream big. "Shaolin Temple" was a video adaptation of a well-known novel authored by Jin Yang. In this movie, my thoughts of Martial Arts were chiseled which brought to a deep realization of what I want to be. That very moment was a turning point in my life. I knew what was at stake once he decided his life to Martial Arts. It will be a long and bumpy road. I will not quit. The movie

"**Shaolin Temple"** spoke to him as if telling him to start his journey. He responded without question. As a child, I was sickly. With this, I can attest that Martial Arts can contribute to the current problems of the new millennium. I am a revelation of what it can do to a person. In fact, evidence points to the health benefits one gets from this sport. Kung Fu and Taijiquan are examples of Martial Arts that connect an athlete to nature. Thus, it is established that it can positively help someone who is actively engaged in this sport. Lloyd & Fuller (2019) When I met my teacher, I believe that he embodied the principle of Martial Arts which was to "teach, train, and entertain (Vertonghen, Theeboom, & Cloes, 2012 as cited by Overton, 2017)." Apprenticeship according to the Martial Artist is "a form of inheritance and continuation to pass down the knowledge and skills." I added that a Martial Arts teacher must embrace the student and must be willing to teach him. However, the student must have the sincerity and desire to learn. I have lived this kind of life since then. It brought to many places and opportunities that I never thought I would ever reach. Teaching brought me to new perspectives. It led me to believe that athletic experience will help draw the theoretical foundation, effective demonstration, and incorporate the right values and attitude among my students. What makes martial arts education unique is how its philosophy and self-reflection is embedded into the curriculum (Mayen et al., 2015 as cited by Johnson, 2016). It must be genuinely ingrained in every learner. Generally, students are curious about my personal life. Hence, I eagerly share it with them to motivate and inspire them to work harder and excel in this field. Johnson (2016) believes that sharing of experiences draws students to resemble my attitude and behavior. I use my fame as a practical demonstration of the kind of future they may lead. I see beyond the eyes of my student. I feel. I discern. I learn. I speak. I preach. I cry. I discovered it. I pout. I imagine. I respect others. I listen. Above all, I love with all my heart. These are few of the many things I do within and beyond the four corners of my classroom. In putting all these emotions together, you may learn to understand deeply what goes within the hearts and minds of my students. I believe that my profession as a teacher allows me to become cognizant of people around me. As I age, I see more clearly the fundamental role of education in shaping the very core of humanity. Hence, we must use this power to infuse Aristotle's ideology: "Educating the mind without educating the heart is no education at all." The moment I walked into a classroom full of all sorts of students, I accepted that this is who I am meant to be. Then I told myself, "I am courageous". Teaching takes courage. Courage is what makes a teacher. This is how I perceive my profession. It takes courage to accept that this profession is not for the weak, unprepared, apathetic, indolent, and timid. To accept this challenge and to brace yourself to all the unexpected can be scary. When people you love tell you that the future of your children is at stake once you devote yourself to the teaching profession takes boldness. To accept

that you are human and at some point, you may falter and show weakness at any given point is courageous. The confidence you take could not be equated to any material entity. Notwithstanding that you can make and unmake a person is the most incredible act of sacrifice. Finally, these realizations did not just present themselves. It took me a lifetime to accept and prepare for the challenges that may come. At some point I doubted myself to carry such great responsibility. However, I realized the immense fulfillment it has brought in my life. I teach. I believe. I can. I will persist. I will rise victoriously in this profession.

5. Conclusion: My teaching practices and methods reflect my experiences as an athlete. I must state that I have provided and instilled a whole unique dynamic for my students. Teacher-athletes are epitomes of success as they know how it is to be a hard-working student. They have seen it all in the field and in the classroom. This I believe spells out their difference from all other teachers. My teaching styles can reflect my arduous life in the field. Thus, it gives the power to influence others to do better. As a teacher, I have learned to use this power to draw inspiration from my students. As a result, my students are given clarity on what direction they must take when presented with opportunities.

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Czech Student's Interest in Studying Abroad and Non-European Mobility

Pavla Varvažovská
Dr., Czech University of Life Sciences Prague, Czech Republic

Abstract: The publication is focused on the evaluation of the interest and experiences of students of the Faculty of Economics and Management of students from the Czech University of Life Sciences in Prague (CULS) with international mobility during their studies. The publication evaluates the current development of the number of incoming and outgoing students within the Erasmus+ program and in study programs outside Europe in the years 2008-2019. Based on time series models, the expected development of indicators in the following years were predicted. In the interpretation of the results, factors related to the global epidemiological situation in 2020 and 2021 are taken into account. The solution uses the results of a questionnaire survey carried among outgoing students of the Faculty of Economics and Management. The survey showed that students perceive international mobility as a unique benefit that will make it easier for them to find adequate employment in the labor market in the future. International mobility is highly valued for improving language skills, learning about new cultures and creating foreign social ties.
Keywords: Exchange Mobilities, Study Abroad, Educational Process, University, Erasmus Student Network, Buddy Program, Internationalization, Erasmus +, Time Series Analysis, Questionnaire Survey
Introduction Exchange mobilities and the opportunities to study abroad have become more and more common part of higher education in the Czech Republic nowadays. The increase of mobility within Europe has led to an increase in the intensity of various forms of student mobility and at the same time of the development of student mobility programs. One of these student mobility programs is Erasmus+. Student mobility is considered as a positive form of migration, which is financially supported by student grants. International student experience increases young people's labor mobility, knowledge and understanding of other cultures and helps to speed up finding employment after graduation. Learning mobility contributes to the acquisition of experience and competences that are crucial for active participation in society and the labor market. This is the conclusion reached by a recent evaluation of the Erasmus+ program, which talks about the positive impact of mobility on learners in terms of their self-confidence, social integration, independence and gaining a sense of belonging to Europe. Also, University diplomas are recognized within the whole European Union, which helps to increases the labor mobility.
Objectives and Methodology The publication evaluates the current development of the interest of students of the Faculty of Economics and Management of the Czech University of Life Sciences in Prague in studying abroad. The research was based on data from 2008-2019 regarding outgoing and incoming students at the Faculty of Economics and Management of the Czech University of Life Sciences, and a questionnaire survey. The created database was analyzed using time series methods, and the relationships between the questions from the questionnaire survey were tested using the $\chi 2$-test of independence. The analyses were evaluated using STATISTICA 14.
Theoretical Foundations Except private schools, the education system in the Czech Republic is free. Education is available to all citizens of the Czech Republic regardless the financial situation and without any discrimination (Průcha, 2006).
3.1 The education system in the European Union the European Union's program places a high priority on the development of education and training. The access to quality education and training is seen as a driver for the economic growth, social cohesion, research, and innovation, as well as increasing people's prospects for personal

development. The European Union is also helping to build a European learning area. The aim is to strengthen learning outcomes and mobility in education, promote common values and facilitate mutual recognition of diplomas across borders. All these supporting programs are included in the Europe 2020 strategy for coordinating Member States' economic policies (Commission, europa.eu, 2020). These include the Erasmus+ program and the European Structural and Investment Funds. In 2018, the European Commission adopted a proposal to promote the automatic mutual recognition of higher education diplomas, upper secondary education certificates and learning outcomes acquired during mobility abroad. Improving the procedures for mutual recognition of qualifications in the EU Member States is the basis for the European Education Area, which should come into force in 2025. Learning mobility helps to gain experience and competences that are crucial for active participation in society and the labor market. This is the conclusion of a recent evaluation of the Erasmus+ program, which talks about the positive impact of mobility on learners in terms of their self-confidence, social integration, independence and gaining a sense of belonging to Europe (Commission, ec.europa, 2020).

3.2 International study programs 3.2.1 Erasmus and Erasmus + Exchange mobilities have been supported by the European Commission since 1981. The European Union's Erasmus programs was established in June 1987 to focus on mobility and cooperation in higher education in Europe. The Czech Republic joined the Erasmus program in 1998. Between 2014 and 2020, the European Commission has developed a new program for education abroad called Erasmus plus (Erasmus+), which replaces all existing education programs. (Commission, European Commission, 2020). Currently, Erasmus+ is available to both program and partner countries.

Program countries:

- EU member countries – 28 countries,
- European Economic Area Member States (Norway, Iceland, Liechtenstein),
- Turkey, Northern Macedonia.

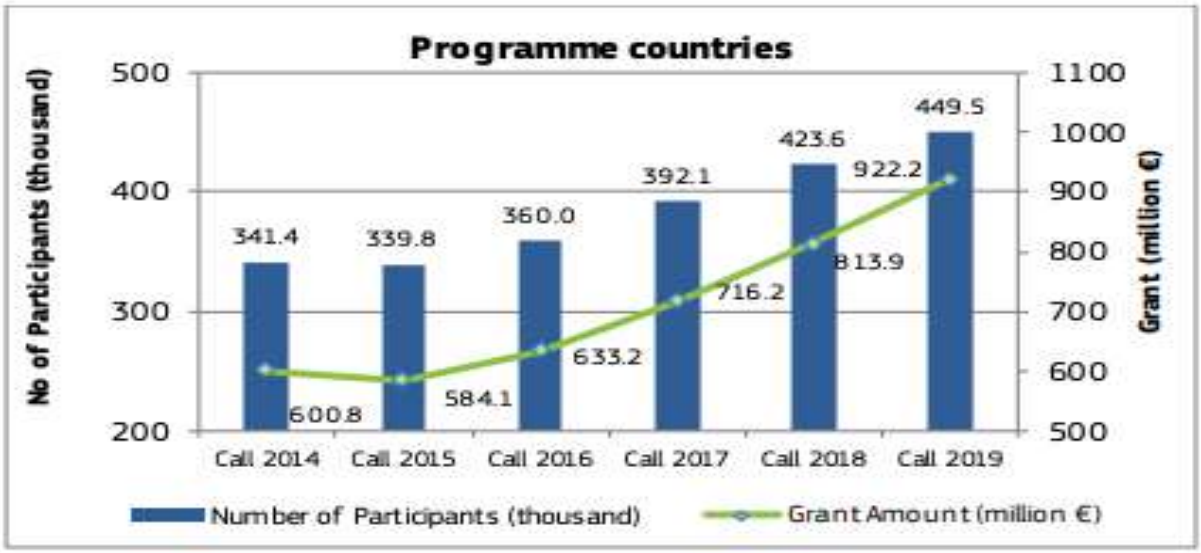
Partner countries:

Armenia, Algeria, Azerbaijan, Albania, Belarus, Bosnia and Herzegovina, Montenegro, Georgia, Egypt, Israel, Jordan, Lebanon, Libya, Moldova, Morocco, Palestine, Kosovo, Serbia, Syria, Tunisia, Russia and Ukraine (Dům zahraniční spolupráce, 2020).

3.2.2 Program Erasmus+ Erasmus+ and the European Commission Erasmus+ is designed to support quality improvement, innovation and internationalization of organizations active in education and training, youth and sport. The Erasmus+ program helps European countries to improve and modernize their education systems and at the same time to train mobility abroad in the field. It is mainly concerned with strengthening the economic factors of employment, competitiveness, innovation and social cohesion. In 2019, the budget for study support has been increased and, as a result, the grants sent to students have increased (Figure 1). The European Commission has set five themes under the Erasmus+ program (Commission, europa.eu, 2020):

- foreign language teaching and learning,
- cooperation between educational institutions and business,
- labor market issues including careers advice and help for young people,
- unemployment; intercultural/intergenerational and life-long learning,
- learning and international cooperation, international relations and development to cooperate.

Figure 1-Evolution of the number of participants (in thousands) and grant amount (mil. EUR)



Source: 2019 Erasmus+ Annual Report of the European Commission

Another Internation programess of European Union are:

- COMENIUS: International program for primary and secondary schools,
- LEONARDO DA VINCI: provides vocational education and trainings,
- GRUNDTVIG: a program for adults and students of the University of the Third Age,
- JEANMONET: the program includes events for dedicated academics and students (Basl, Řezáčová, Modrá, Váňová, & Vlk, 2013).

3.3 Erasmus in the Czech Republic Study Mobility Study mobility is often referred to as seasonal migration. It is a temporary change of residence of undergraduate students at the host university. The grant received by the student participating in the mobility means that the student is paid for his/her move. The specificity is that students are a group for whom the primary purpose of migration is to improve human capital (de Wit, 2002). Student mobility is often associated with internationalisation, which is considered one of the main priorities of the European Union, given its socio-historical context.

Staff/ Employee mobility Employee mobility is a learning experience for teachers or training for teaching and non-teaching university staff. Staff receive grants for living and travel expenses, which is similar to students' scholarship (Gregory, 2011).

Erasmus+ Internship the Erasmus+ Internship program supports practical internships abroad, which can be used not only by university students but also by recent graduates.

3.4 non-European mobilities non-European mobilities operate on the basis of bilateral agreements between the university and the foreign institution and represent an opportunity for students to experience a different educational system than in Europe. Students have the opportunity to study in Asia, America, Africa or Australia. Students who choose to participate in Erasmus+ receive a grant from the European Union and students who travel outside the EU receive a grant from their home university. In the selection process, preference is given to students with excellent academic results (Gregory, 2011).

Education & Training Education & Training programs work with developed countries to improve higher education and intercultural understanding. According to the European Commission, with globalisation and increasing competition, Europe's workforce needs continuous training and international benchmarking. Competition with developed countries leads to an improvement in the quality of the system. That is why in 1995 the Commission concluded the first agreements on cooperation in higher education and vocational training with the United States of America and Canada.

3.5 Erasmus Student Network and Buddy program The Erasmus Student Network (ESN) is Europe's largest student

organisation, which was founded in 1989 and has since expanded to 40 countries. ESN's purpose is to offer assistance to students in the process of academic, social and practical integration during their exchange studies. This is mainly done through activities in local sections, which include cultural and social events where students have the opportunity to meet and get to know more local or international friends. In addition, many sections have introduced mentor systems to help international students, especially in academic and practical integration (ESN, 2020). Part of ESN is also the Buddy program. This is a voluntary organised group of students from one university who help incoming students on international study programs free of charge. Any student who is interested in Buddy must apply in advance. Members of the Buddy program are then the first people from the university that incoming students meet and are in contact with before the international student arrives in the country.

Results The Exchange mobilities at The Faculty of Economics and Management the Faculty of Economics and Management of the Czech University of Life Sciences in Prague offers its students a large number of foreign mobility opportunities as part of their studies at the faculty. These mobilities can be in the form of semester or annual study stays, practical internships, summer schools and language courses. One of the most used forms of mobility is the Erasmus+ program, in which the mobility participant's foreign study stay is financially supported by funds from the European Union and the Czech Republic. The most prestigious form of international mobility is considered to be studying in the framework of double degree programs. Thanks to this form of study, it is possible to obtain a diploma from the Czech University of Agriculture together with a diploma from a foreign partner university. A student who decides to follow a double degree program completes the first part of his/her studies at the home university and then completes the second part at the foreign partner university. Currently, by obtaining a double degree, it is possible to significantly improve one's position on the Czech and European labor market. The Faculty of Economics and Management offers this program in cooperation with universities in France, the Netherlands and Russia for the Master's degree and in Germany, Italy, Spain, France and Switzerland for the Bachelor's degree. (PEF, 2020). The figure2 shows the universities with which the Faculty of Economics and Management of the Czech University of Life Sciences in Prague cooperates. Figure 2- Partner Universities of The Faculty of Economics and Management of ČZU in Prague

Legend: Erasmus+ (blue colour), CEPUS (purple colour), Erasmus MUNDUS (turquoise colour), non-European mobilities (yellow colour) Source: CULS Partner universities in the Erasmus+ program

Table number 1 shows the amount contributed by outgoing students by destination country. The countries are divided into two groups according to the cost of living in the country. The contribution for students going on practical placement is higher by EUR 180 per month, mainly due to the impossibility of student discounts.

Table 1- Erasmus + scholarships for students from the CULS

Groups	Target country	Monthly amount of scholarship that students receive	
		Study mobility	Internship
sGroup 1	Belgium	519 EUR / per month	699 EUR / per month
	Denmark		
	Finland		
	France		
	Ireland		
	Iceland		
	Italy		
	Cyprus		
	Liechtenstein		
	Luxembourg		
	Malta		
	Germany		
	Netherlands		
	Norway		
	Portugal		
	Austria		
	Greece		
	Spain		
	Sweden		
	United Kingdom		
Group 2	Bulgaria	420 EUR / měsíc	600 EUR / měsíc
	Estonia		
	Croatia		
	Latvia		
	Lithuania		
	Hungary		
	Poland		
	Romania		
	North Macedonia		
	Slovakia		
	Slovenia		
	Serbia		
	Turkey		

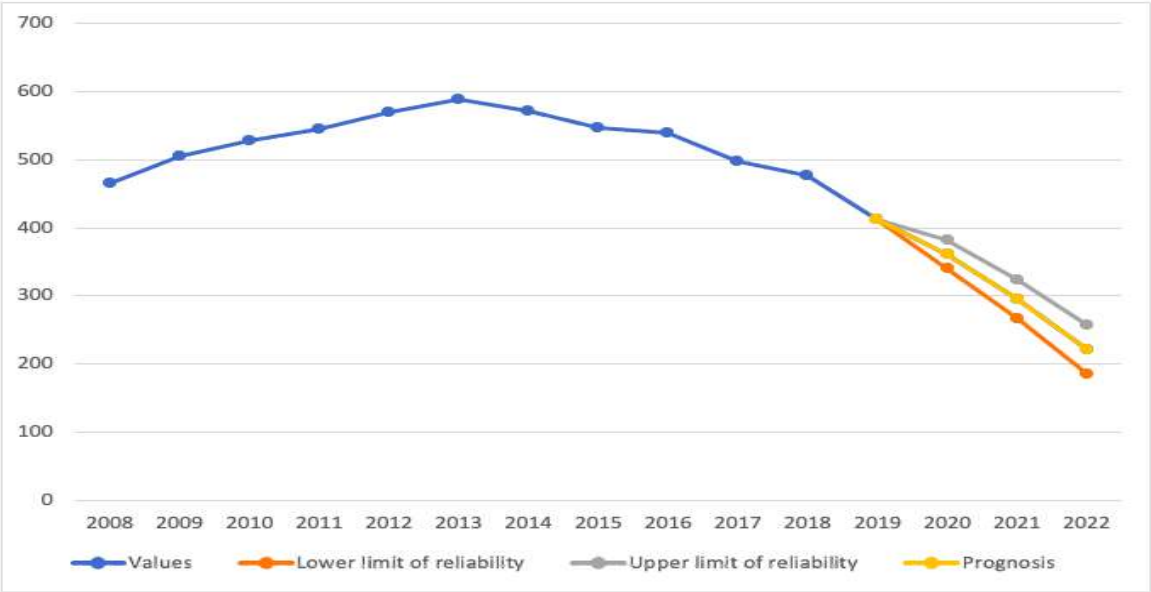
Source: own elaboration based on data from CULS

All the students receive financial support for the mobility. The scholarship is intended to cover only part of the increased living costs during their stay. It is therefore very important for students to consider their own financial resources. The amount of the scholarship is fixed in a flat rate and varies according to the destination country. At the same time, due to the nature of mobility, students are also entitled to an accommodation grant, according to the terms of the valid scholarship regulations. If the conditions are met, students are eligible to apply for support for students from socio-economically disadvantaged backgrounds or for support for students with special needs (PEF C., Mezinarodni vztahy, 2020). The Erasmus+ students receive the final amount before departure, while under the bilateral agreement mobilities the students receive the amount in monthly instalments.

Outgoing students of the Faculty of Economics and Management The development trends of the interest of

students of the Faculty of Economics and Management in studying abroad through the Erasmus+ program in the years 2008-2019 is presented in Chart 1. We can see that the highest interest in the mobility was in 2013 and has been decreasing significantly since then. It is very likely that the decline in interest in Erasmus+ was due to the growth in interest in non-European mobility abroad, which can be seen in Figure 2. Interval predictions for 2020-2022 were calculated based on a quadratic function (α=0.05).

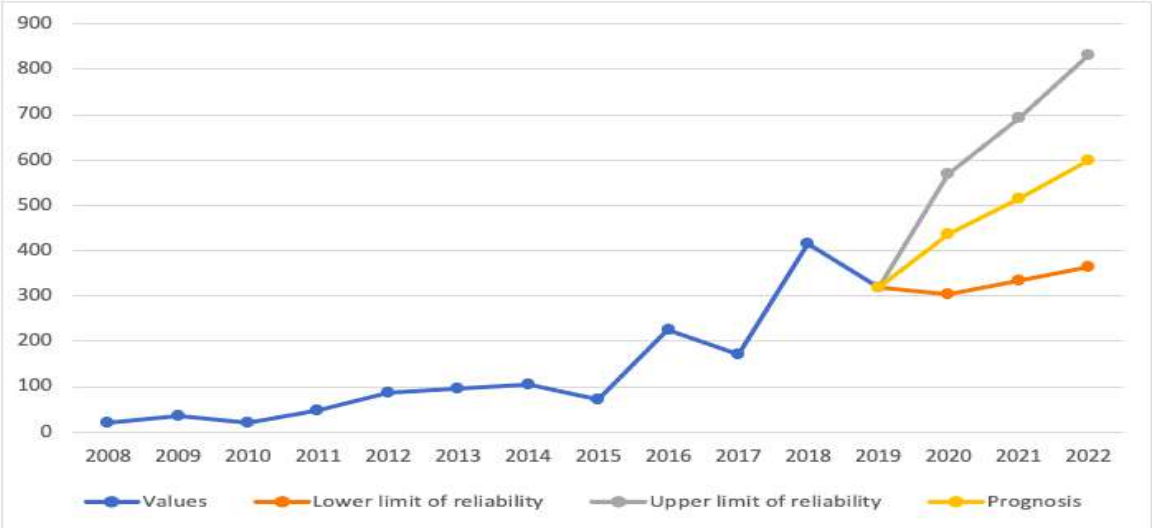
Chart 1- Student's interest and its prediction (α=0.05) to attend Erasmus+ at the Faculty Economics and Management in Prague 2008-2019



Source: own elaboration in the software STATISTICA 14

Chart 2 shows the interest of non-European mobilities at the Faculty of Economics and Management has an increasing tendency. One of the reasons is the possibility to travel to areas that are more distant and more exotic for European students.

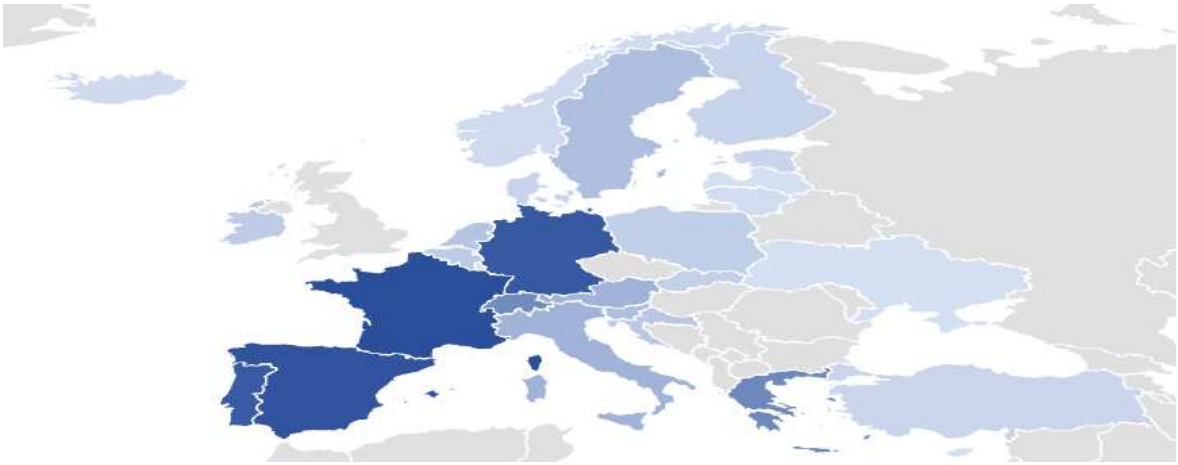
Chart 2- Student's interest and its prediction (α=0.05) to attend non-European mobilities at the Faculty Economics and Management in Prague 2008-2019



Source: own elaboration in the software STATISTICA 14

The top 5 most favored and requested countries under the program Erasmus+ are France, Spain, Germany, Portugal and Greece (Figure 3).

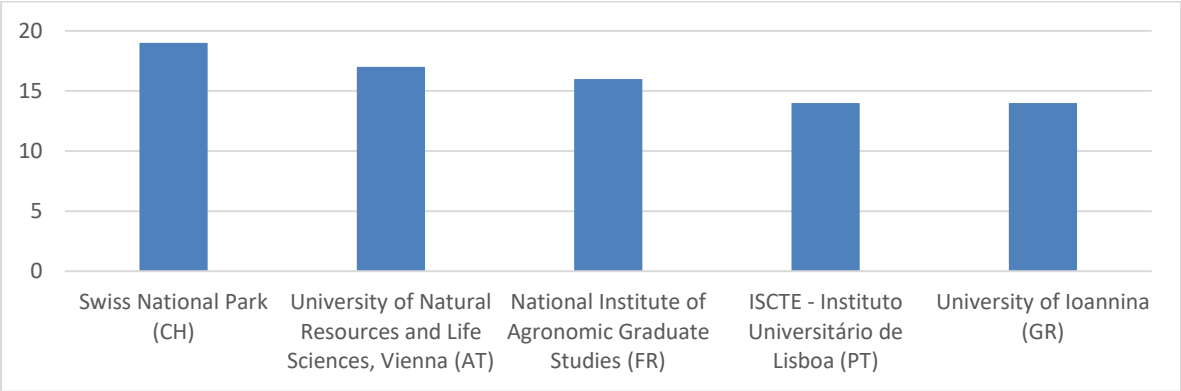
Figure 3 – Map of the students' interest to attend Erasmus+ in 2019



Source: own elaboration based on data from CULS

Chart 3 shows the 5 most selected universities within the Erasmus+ program by students of the Faculty of Economics and Management. In this case, it is not only about the country, but the students chose the university according to the prestige of the school.

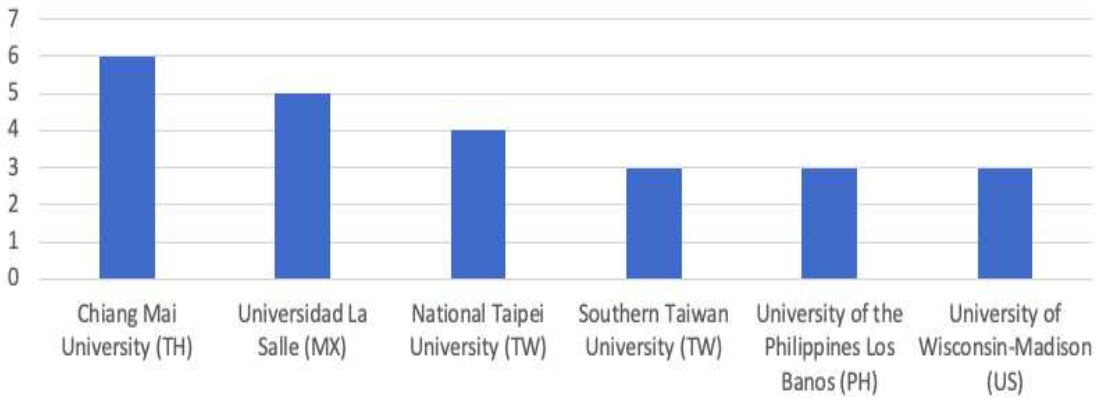
Chart 3 - The most popular Erasmus+ universities of the Faculty of Economics and Management in 2019 in terms of the number of outgoing students per year



Source: own elaboration based on data from CULS

The most popular university out of the non-European mobilities in 2019 was the university Chiang Mai in Thailand. The other most popular preferences of students from the the CULS Faculty of Economics and Management are shown below in chart number 4.

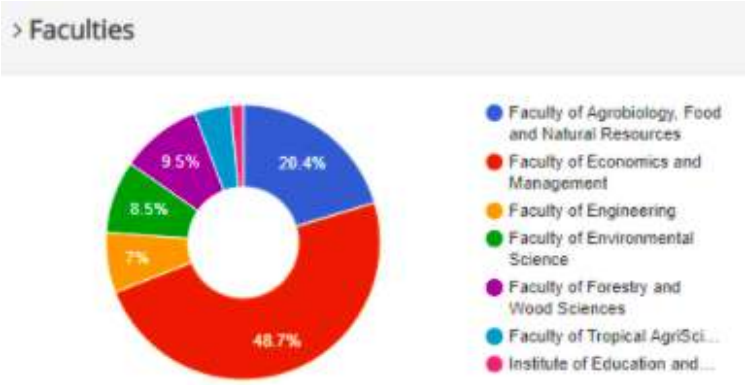
Chart 4 – The most popular non-European universities for students from CULS the faculty of Economics and Management in 2019



Source: own elaboration based on data from CULS

Erasmus+ incoming students The „Buddy Program“for all incoming students at the Czech University of Life Sciences in Prague, is run by ESN (Erasmus Student Network). The program helps incoming students with adaptation after arrival and during the whole mobility as well. Students from CULS who participate in the buddy program are also organizing cultural and social events for foreign students during whole semester. Chart 5 shows the proportion of students who have applied for the Buddy Program by faculty of the CULS.

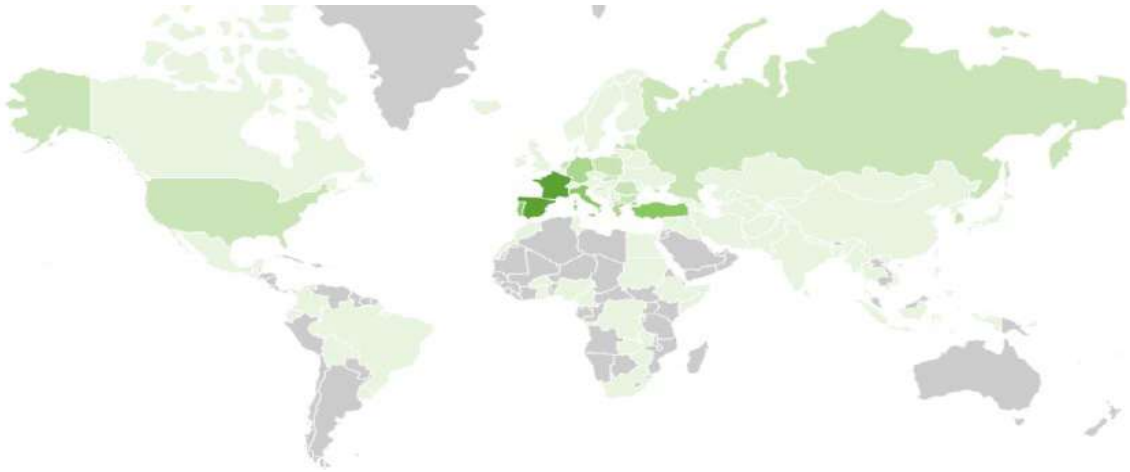
Chart 5- Buddy program for foreign students within the CULS in 2019



Source: ESN CULS

In 2020 and 2021, there was a significant drop of student interest due to the pandemic situation of COVID-19. Figure 4 shows the countries from which students came to the CULS as part of student mobility (data from 2019). The countries that are more strongly colored show a higher number of students arriving and therefore we can say that most students arrive from the countries of France, Spain, Italy and Turkey under the Erasmus+ program. For non-European mobility, the countries are the USA, South Korea and Russia.

Figure 4- Arriving students within the framework of international mobility at the CULS in 2019



Source: ESN CULS

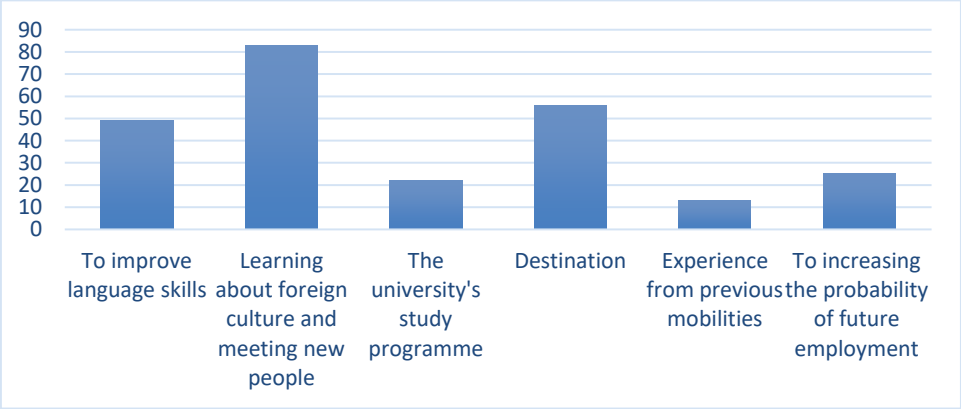
Despite the partial epidemiological calming under COVID-19 in 2022, many students are concerned about the possibility of certain global sites being closed again. Experiences with online learning, closure of universities, cultural and social venues do not bring the expected benefits of study abroad.

Analysis of the results of the questionnaire survey Respondents' profile the questionnaire survey was conducted in early 2022 and focused on students of the Faculty of Economics and Management who participated in study abroad, both in the Erasmus+ program and the Extra-European Mobility program. The sample size was 104 students. Respondents had most often studied in Portugal, Germany, South Korea, Spain, Taiwan and France. The

countries South Korea and Taiwan fall under bilateral agreements and the rest under Erasmus+. Students preferred mobility under Erasmus+ or Extra-European Mobility, with almost three quarters choosing Erasmus+.

Mobility selection criteria Chart 6 shows which criteria were most important for students while choosing their mobility abroad. For 83% of the respondents, learning about a foreign culture and meeting new people was important for their choice of mobility location, for 56% of the respondents it was the location of the mobility and for 49% it was an opportunity to improve their language skills.

Chart 6- Respondents' criteria for international mobility (%)



Source: questionnaire survey

Dependency analysis of qualitative variables the dependency analysis between the questions in the survey were performed using the χ2 test. Hypotheses were tested at 5% significance level. Five null hypotheses were formulated for the aim of the study:

H01: The relationship between the study program and the mobility chosen by the respondent does not exist.

H02: The gender of the respondent does not affect the choice of the mobility.

H03: Mobility does not affect the quality of studies.

H04: Gender does not affect interest in participating in one of the mobilities again.

H05: Absolved mobility does not affect your interest in studying abroad again.

The results of the testing of statistical hypotheses are shown in Table 2.

Table 2- Results of statistical hypothesis tests

Null hypothesis	Test criterion	Dependency α=0,05	C
H01	12.8956	Yes	0.3395
H02	0.3871	No	-
H03	38.8783	Yes	0.6235
H04	2.3944	No	-
H05	6.3705	Yes	0.2471

Source: questionnaire survey

The χ2 test of independence found that the study program (Bachelor's, Master's) has an influence on the choice of international student mobility (C=0.395). Girls and boys choose destinations according to similar criteria. The quality of the level of study abroad is related to the choice of university (C=0.6235). Gender does not influence the interest to participate in one of the mobilities again, but previous study abroad experience triggers repeated interest in studying abroad (C=0.2471).

Conclusion Based on time series analyses, it was found that the number of students interested in completing Erasmus+ student mobility is decreasing. However, in the framework of bilateral agreements (Extra-European

Mobility), student interest is on an increasing trend. Current students are more interested in mobility where they get to go to less usual areas from a European perspective, such as the countries in the Extra-European Mobility. In addition to the attractiveness of the countries under bilateral agreements, a common reason for choosing to study in these countries is the reduced administrative burden of the extensive documents a student has to submit before departure. As the Erasmus+ scholarships for outgoing students are funded by the European Union, a considerable amount of documentation is required. Conversely, for students who choose to go under bilateral agreements, the scholarship is provided by the student's home university, making it easier for both the university and the students. Another reason for the reduced interest of students in Erasmus+ is the growing interest in seasonal work abroad and summer language stays outside Europe. A significant contribution to that is made by the Czech-US Agency for Work & Travel in the USA and Canada. The Buddy Program is important for students in the context of learning mobility. In the case of European countries, the program is largely provided by the Erasmus Student Network (ESN), which helps students to adapt to their new country before and during their mobility. The ESN is also involved in promoting mobility abroad. For non-European mobility, universities usually provide their own Buddy system. Based on the results of a survey carried out among students of the faculty of and Economics and Management at CULS in Prague, the most attractive universities for Erasmus+ are in France, Portugal, Spain and Germany. In the framework of bilateral agreements, these are Thailand, Mexico, Taiwan, the Philippines and the USA. An important criterion for selecting a particular university is the level of education provided. Despite the partial epidemiological relief under COVID-19 in 2022, many students are still concerned about the possibility of certain global sites being closed again. Experiences of online learning, university closures, and restrictions on cultural and social venues are negatively impacting current student interest in international mobility. Several criteria play a role in the mobility abroad and in the choice of the country and university where a student decides to study. In addition to the actual desire to study the chosen study program abroad, these include efforts to improve language skills, to learn about a foreign culture and new people, and to become independent. Learning about the culture of the country will help students in both their personal and professional lives. By studying abroad, students can open the door to interesting job opportunities in both the domestic and international job market.

Acknowledgments The information introduced in this paper resulted from the solution of a project of IGA No. 20151051, Faculty of Economics and Management, Czech University of Life Sciences Prague "Civic activism and its projection into the local political life."

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PEF, C. (2020). Partnerské univerzity. Dostupné z https://www.pef.czu.cz/cs/r-7010-mezinarodni-vztahy/r-7036-mezinarodni-mobility/r-8577-mimoevropske-mobility/r-14141-partnerske-univerzity

The Lagoon Environment of Cap Bon: Filling or Conservation

Adel Ben Hassine
Associate Professor, University of Tunis, Tuni, Tunisia

Abstract: The lagoon of Korba is located in the North-East of Tunisia, it is separated from the sea by a sandy cordon. Its watershed is made up of tertiary and quaternary land. Continental and marine contributions to lagoon water are occasional (floods and storms). It is subject to a semi-arid climate, despite its proximity to the sea. The Tunisian coast, by its physical and socio-economic, is particularly vulnerable to the characteristics accelerated rise in sea level (EANM) due to global warming. The climate change would have major negative impacts on ecosystems, health and the economy

Keywords: Lagoon, Korba, Tunisia, Environment, Cost

The wetlands of Cap Bon are generally divided into two large groups: The wadis, reservoirs, dams and hill lakes, on the one hand, and the Chott and Sebkha lagoons on the other. Within the perimeter of the study, the environments specified are the wadis of El Abid, Zaouiet El Mghaiez, Sidi Othman and Lobna as well as the string of wetlands (sebkha, lagoons, chott) which extends over the southern coasts in west-east direction. All of these environments are represented in particular by: Sebkha Maâmoura Sebkha Tazarka (El Gharbia) Lagoon of Korba, Lagoon of Korba Cherguia (Echarguia, Gsar Ghaleb, El Bkir), Oued El Abid, Oued El Mghaiez, Oued Lobna. Lagoons are bodies of water, elongated parallel to the coastline, shallow, often isolated from the sea by a loose cordon (Pinot, 1998). Communication with the sea is through more or less numerous passes in the cord (Lankford, 1977; Nicholas et al., 1981; Kjerve, 1994). These paralic systems are of great biological and socio-economic interest (Guelorget & Perthuisot, 1983; Clavier et al., 2005). Lagoons are often ephemeral and relatively stable environments even in their natural state. Their organizations and characteristics are closely linked to a dynamic balance between marine and continental inputs. Storms and sea floods, with which washover fans are sometimes associated, as well as the dynamics of passes, can quickly modify this balance (Maanan, 2003). As with all lagoons, the lagoon of Korba (north-eastern Tunisia) is subject to various pressures linked to an intensification of industrial and agricultural activities as well as a rapid increase in population. This lagoon is an important staging post for certain migratory birds, in particular pink flamingos. In order to ensure good environmental management of this lagoon, it appears necessary to monitor their evolution on the sedimentological, mineralogical, geochemical, geodynamic, hydrological and ecological levels.

Problem: Three groups of problems reflect the current management conditions of the Cap Bon wetlands: ecological, socio-economic and legal- institutional problems. Indeed, the phenomenon of filling in water bodies for the construction of buildings also extends to the lowlands of our cities because the majority of the populations think that their Eldorado is there living thus with the permanent risk that constructed buildings do not collapse one day or another. The spreading for any purpose whatsoever of chemical products and in particular agricultural pesticides, the discharge of effluents or toxic substances, the dumping or runoff of waste water and the deposit of rubbish or domestic waste or industries, poor management of lowland flora and fauna resources (they serve as habitat for aquatic, terrestrial and migratory species) are also some of the harmful causes of lowlands. Given the importance in the hydrological cycle and in the sustainability of the aquatic and terrestrial ecosystems that depend on them, it is essential to take the appropriate measures to ensure the conservation of the wetlands of Cap Bon so that they fully play their natural roles. regulating and replenishing water resources and maintaining their quality.

Section 1: General description: the lagoons:

1- Climatic conditions: From a purely climatic point of view, Tunisia can be classified in the Mediterranean subtropical zone, with a climate characterized by a regular alternation of two strongly contrasting seasons which

present, in addition, an extreme irregularity, namely:

- A hot and dry summer, of very variable duration, corresponding approximately to the months of June, July and August;
- A winter that stands out for its relative mildness and humidity and which constitutes, in the Mediterranean context, the real rainy season.

The inter-seasons, autumn and spring, which separate them are transitional periods where some typical winter or summer situations can occur simultaneously. On the other hand, from a bioclimatic point of view, Tunisia is attached, in its entirety, to the Mediterranean bioclimatic floors. Indeed, due to its geographical location and its orography, Tunisia is subject to Mediterranean influences, the dominance of which, to the North of the Dorsal, attributes to the climate of this part of the frank Mediterranean characteristics and the weakening in the South lets the Saharan influences play. which then reveal subtropical characteristics. Indeed, although stretching between the Mediterranean, in the North, and the Sahara, in the South, only on a relatively reduced distance, that is to say 1200Km, all the climatic nuances separating the typically Mediterranean regions from the desert regions are represented there. According to Emberger (1960), Tunisia has 5 bioclimatic stages, ranging from the most arid to the most humid depending on rainfall:

- the desert level (Saharan), where rainfall is less than 100 mm / year;
- the arid stage, where the rainfall is between 100 and 400 mm and where often 2 sub-stages, one upper and the other lower, are distinguished;
- the semi-arid stage, where rainfall is between 400 and 600 mm and where often 2 under-stages, one upper and the other lower, are distinguished;
- the subhumid stage, where rainfall is between 600 and 800 mm;
- the wet floor, where rainfall is above 800.

Some authors limit the wet level to precipitation between 800 and 1200 mm, to speak of a sixth level where the precipitation would be greater than 1200 mm: the perhumid level. In addition, inside each floor, thermal variants are determined by means of the values of the average minima of the coldest month or "m", these are the hot variants (m > 7° C), mild (4 .5 < m < 7° C), temperate (3 < m < 4.5° C), cool (0<3° C), The North of the Dorsal (Tellian regions and those of the North-East) which appears as a whole where the Mediterranean climatic processes dominate, ensuring, each year, the advent of a wet season, long from 2 to 8 months. It is elsewhere, the aspect which makes the originality and the climatic individuality of the Tell; during this season, a surplus of water available for runoff is ensured in addition to meeting the needs of climatic water demand. This surplus, generally modest in the South-East of the Tell, reaches significant quantities in the North and the North-West. The bioclimatic levels encountered there are, very locally, the perhumid (summit of Jbel El Ghorra and Ain Zana), the humid, the subhumid and the semi-arid, especially upper and secondarily lower.

2- Main features: The Korba lagoon is of the coastal type with a small surface area (650 meters long by 250 meters wide) with a sandy-muddy bottom communicating with the sea through an artificial channel that is often filled in. Figure 1: site plan the lagoon of Korba El Charguia (Echarguia, Gsar Ghaleb, El Bkir) is located near the town of Korba, extending parallel to the coast (between 10°51.52'/36°33.84' and 10°54.83'/36°38.85') it is divided into 3 zones (south, center and north) Echarkia, Qsar Ghaleb and Sebkha El Bkir, the whole is separated from the sea by a dune coastline crossed by 3 main intermittent passes.

Figure 2: Section AB

	Korba Lagoon	The lagoon of Korba El Charguia
Location of the lagoon	Governorate: Nabeul Delegation: Korba Municipality: Korba Access: Direct Road and tracks	Governorate: Nabeul Delegation: Korba Municipality: Korba Access: Direct Road and tracks
Water quality	The quality and quantity of	In relation to its longitudinal extension, the

	the waters are quite variable depending on the communication with the sea and the infiltration waters.	lagoon of Korba presents a wide variability of water quality subject to the double marine influence on the one hand and continental (natural or artificial) on the other hand. Water salinity is a direct reflection of one or other of these trends. Organic pollution is more pronounced in the southern part of the lagoon as reflected ammonium levels: South zone: 6.5 mg/l Central zone: 7.4 mg/l North zone: 14 mg/l
Biological diversity	Endemic species: none Rare species: none Notable species: none Threatened species: none	Endemic species: none Rare species: none Notable species: none Threatened species: none

i. Interest fauna and flora:

The lagoon of Korba presents a floristic interest more important than the lagoon of Korba El Charguia, indeed the first gathers planktonic microflora represented by 9 main species against 21 common species including 11 diatoms, 9 dinoflagellates, and a cyanophycee for the second. The macrofauna of the lagoon is varied but it presents itself in succession relative to the quantity of water and the seasons. It is rich in insects, invertebrates, so the second lagoon contains crustaceans and fish

	Korba Lagoon	The lagoon of Korba El Charguia
The planktonic microflora	9 main species: 6 diatoms, 3 dinoflagellates; the planktonic microfauna by 11 species or groups: 4 copepods, 1 , 2 tintinnids, 1 appendicular, gastropod larva, cirriped larvae, annelid larvae.	The planktonic microflora of the lagoon is quite varied. She is represented by 21 common species including 11 diatoms, 9 dinoflagellates, and one cyanophyceae.
Macroflora _	Macroflora _ aquatic species is represented by *Salicornia arabica glasswort,* bulrush *Scirpus maritime* and rushes *Joncus maritimus,* and a dense herbarium of Althenia.	The macroflora covers a large part of the lagoon, particularly in the southern zone with *Ruppia* phanerogams *maritima and Althenia barrandonii Enteromorpha algae and Cladophora.*

Macrofauna	The macrofauna is rich in insects (ephemeroptera, beetles, and tricoptera), in invertebrates (molluscs and worms), vertebrates (water birds, small fish *Cyprinodon fasciatus,* mullet fry).	Note the presence of: Insects: *Chironomus sp , Culex sp , Chaeborus sp , Similium …* Amphibians: *Bufo viridis, Rana ridibunda , Rana lossesi , Discoglossus picture* . Molluscs: *Cerastoderma glaucum, loripes lacteus* (lamellibranch), *Ceritium vulgatum* , *Hydrobia sp* (gastropod). Crustaceans: *Gammarus aquicauda* (amphipod), *Paleamonetes varians , Carcinus mediterranus (decapods) ...* Pisces: *Aphanius fasciatus, Pomatoschistus microps, Liza ramada, Liza saliens, Mugil cephalus, Anguilla anguilla in the form of* elvers.
The microfauna		The microfauna planktonic is also rich with 20 common species: 4 copepods, 1 water flea, 2 ostracods, 4 tintinnids, 5 ciliates and 4 rotifers.

Section 2: ANALYSIS OF THE MAJOR FUNCTIONS OF AREAS WETLANDS AND LAGOON ENVIRONMENTS:

1- Ecological definition: A wetland is an area where water is the primary factor controlling the natural environment and the associated animal and plant life. It appears where the water table comes close to the surface or outcrops or where shallow water covers the land. A wetland, denomination deriving from the English term wetland, is a region where the main factor influencing the biotope and its biocenosis is water. A distinction is generally made between coastal and marine wetlands, which are differentiated by proximity to the sea more than by salinity (saline lakes may exist inland). Several legal and regulatory elements have been put in place in recent years to limit the negative impacts and to enact sustainable management of these wetlands.

2- main functions of wetlands: Wetlands, irreplaceable "natural infrastructures", contribute to self-purification of water, contribute to the attenuation of the effect of floods and to the support of low water, and ensure a set of functions essential to society. Wetlands retain heavy rain, preventing possible flooding downstream. By storing water in the ground or retaining it on the surface of lakes, swamps, etc., wetlands replace advantageously artificial structures, built at great expense. Wetland vegetation also plays a role in slowing the flow of flood waters downstream. In the United States, a recent study estimates that 0.4 hectares of wetland can store more than 6,000 m3 of flood water. Droughts, heat waves, floods... with climate change, extreme events will multiply in the Mediterranean, warn IPCC reports. They will increase the pressures on water resources leading to significant risks of economic losses but also in human lives. Finding solutions for mitigating and adapting to climate change therefore becomes crucial. One of these solutions could come from wetlands (marshes, deltas, lagoons, etc.) whose surface area is estimated at between 15 and 20 million hectares in the Mediterranean, or 1.5% of the area listed on the planet. Figure 3: Wetlands act as “climate buffers”

1.2 / Biological functions: Wetlands are among the richest natural environments in the world, providing water and food for countless species of plants and animals. These are remarkable living environments for their biological diversity: reservoir of biodiversity; cover, refuge, shelter, breeding and resting areas for many species including birds’ migrants such as; regulation of microclimates.

1.3 / Economic functions: Production of aquacultural, agricultural and hunting food resources, capital for the maintenance of activities such as fishing, hunting, farming of shellfish and crustaceans, manufacture of building

materials, agriculture (fodder, pasture). There is therefore growing interest in the economic value of the products and services provided by wetlands, as well as in the costs associated with their destruction/restoration. Indeed, even if the direct economic rent of wetlands remains moderate, the cumulative effect of their degradation can greatly increase the costs for local authorities, particularly in terms of treatment of polluted water, protection against flooding, management of low water levels, for example.

1.4 / Social and cultural functions: Places of relaxation, leisure and discovery, an integral part of the landscape and cultural heritage of a region. Thus, the natural resources associated with wetlands condition the exercise of economic activities in the primary (agriculture, livestock, water production and distribution), secondary (water consumption in industry in particular) or tertiary (focused on recreation and outdoor activities). However, despite the many benefits they provide, wetlands are regressing and it is generally estimated that two thirds of the original French wetlands have been destroyed. These spaces are in fact subject to strong land and urban pressures (artificialization, drying out, backfilling, cultivation, etc.), and are weakened by water pollution, the invasion of species, the intensification of agricultural practices, the various developments and withdrawals carried out, hence the importance of effective management of these rich but extremely fragile environments.

3- The water quality of the Korba lagoon: These are the classic roles and functions of sebkha: hydraulic (spreading, retention, recharge, etc.), ecological (primary production, flora, birds, etc.), economic (grazing, etc.) The site remains sensitive to neighboring urban and agricultural developments. This sebkha receives in its eastern part solid urban discharges from the locality of Tazarka as well as discharges from the sea. It is subject to control and prohibition of all discharges into the sebkha, in particular "industrial" waste. Control of grazing and the exploitation of the rush, with maintenance of the communication to the sea. For the needs of monitoring and studies of the lagoon monitoring of water quality, in particular its origin and its intermittency. A study of the populations of small fish in particular the recruitment of young and the dynamics of the populations. The salinity at the level of the Korba lagoon is relatively high with an increasing trend from North to South. The lagoon waters are characterized by a basic pH (between 8 and 9) and high turbidity due to the development of green microalgae linked to the high concentration of nutrients (eutrophication). -PH The pH values in the lagoon vary between 7 and 9. During the period of July-September 2008, a decrease in pH was observed in the middle part of the sebkha, probably caused by water discharges from the tomato canneries. Biomass developments observed in the lagoon in connection with eutrophication lead to an increase in pH values. Figure 4: pH

SALINITY The salinity of the lagoon is very variable from one year to another, in relation to the climate of the year. It also varies according to the seasons depending on the influx of rainwater, wastewater and seawater intrusion. During the same period, salinity varies spatially; that is to say that it varies from one point to another of the lagoon. The overall trend is the increase in salinity from North to South linked to a supply of fresh water from the Korba station since 2004.

Figure 5: Salinity (g/l) – turbidity the turbidity of the lagoon water is directly influenced by the agitation of the water layer, by biological activity and by water supply. It varies between 20 and 600 NTU. The water can be considered turbid to very turbid except for some areas where the waters are clearer. -

Dissolved: oxygen Dissolved oxygen is the determining parameter in the evolution of biological activity. The levels measured during the campaign carried out in July 2008 vary between 0.01 and 4 mg/l. These values reflect the state of water stagnation and lack of mixing of the water mass in connection with the shallow depth. These values also indicate that the environment tends towards the anoxia phase. We also observe a degradation in the algae that develop in this environment, marked by a color change towards yellowish color and sometimes towards purple color. Figure 6 : Dissolved oxygen (mg O2 /l) The salinity at the level of the Korba lagoon is relatively high with an increasing trend from North to South. The lagoon waters are characterized by a basic pH (between 8 and 9) and high turbidity due to the development of green microalgae linked to the high concentration of nutrients (eutrophication). -The lagoon of Korba El Charguia : As a natural environment, the lagoon remains sensitive to neighboring urban and agricultural developments. On the other hand, it is pollution in all its forms that weighs on this environment: The discharge of waste water ONAS or others The discharges from canning factories, the volume

of which is considerable. Releases from other industries such as the washing of jeans and other textile products. The voluntary or involuntary accumulation of various types of waste (domestic waste, garage waste, waste from summer visitors. The Sidi Othman wadi contributes partially to this pollution. For better conservation of the natural heritage, it is necessary to control and prohibit all discharges into the lagoon, in particular household waste and solid waste, with better control and treatment of waste water. This should be accompanied by a Control (regulation) of grazing and the exploitation of the rush and an adequate Maintenance of the communication towards the sea. These should be accompanied by regular monitoring of water quality with identification of the annual cycle and hydrobiological rhythms with the identification and control of sources of pollution of the water body. A meticulous study of small fish populations (recruitment and future) with an assessment of the economic, social and cultural dimensions of this resource ...: (aquaculture) productivity in rotifers and Spirulina Korba lagoon south area Section 3: Assessment of vulnerability, climate change impacts and adaptation measure Several works (including those of Giannkopoulos et al., 2005) highlighted the particular vulnerability of the Mediterranean region to climate change. Indeed, it has been demonstrated that in the event of a global increase in the average temperature of 2°C, this region, to which Tunisia belongs, would undergo a warming of 1°C to 3°C. This warming would be more pronounced in the continental than coastal zone and will take place during the summer season, essentially, in the form of heat waves, especially in the southern Mediterranean. A decrease in precipitation would be the most striking phenomenon, especially in the summer period. Also, long and intense periods of drought are suspected in the south, with high variability and shifting seasons. In Tunisia, studies to assess vulnerability to climate change have unequivocally demonstrated that the country is already suffering, and will suffer for a long time, the impacts of this planetary phenomenon, in particular the impacts related to the increase in average temperatures., reduced precipitation and sea level rise. Indeed, climate change should, according to the aforementioned studies, aggravate water stress, contribute to the degradation of ecosystems and agro-ecosystems (olive production, arboriculture, livestock, field crops, etc.) and increase the frequency of meteorological phenomena. extremes, especially droughts and floods. Also, Tunisia would suffer from an amplification of erosion processes, would experience hotter summers, more frequent and stronger droughts coupled with intense rains. Warmer temperatures would dry out soils and increase the salinity of water supplies. In addition, accelerated sea level rise due to global warming will have severe impacts on coastlines, coastal ecosystems, natural resources and coastal infrastructure. In short, climate change would have major adverse impacts on ecosystems, health and the economy (particularly the agricultural and tourism sectors), and significant social repercussions, especially for poor populations in the interior of the country., whose income is highly dependent on agricultural activities and the exploitation of natural resources.

1- **HYDRAULIC COMMUNICATIONS** During tides and storms, sea water reaches the lagoon through the passes and/or through the sub-lowered areas of the sandbar. Thus, the coarse sands are deposited at the level of passes and form pro-deltas (fig. 7). Fine sands are deposited on either side of the passes. The very fine sands migrate towards the western border where they are deposited by decantation; During the warm seasons, the winds blowing from the sea on a dry beach carry the sand particles from the beach to the dunes. Part of the sands is stopped by the vegetation occupying the dunes, the other is deposited at the level of the eastern edge of the lagoon. This cordon shows an inward migration as the upper sands of this cordon overlie the outwashes of the plains which contain archaeological material (Weslati, 1994). Finally, the fine, clayey sediments reach the lagoon by direct runoff and occasionally by Oued Chiba and are deposited by decantation at the level of the western border. The sedimentary filling of the Korba lagoon over time is in agreement with the evolutionary scheme of the lagoons proposed by Carruesco (1989), Bird (1994) and Maanan (2003). Figure 7: Hydraulic communications 2- The impacts of climate change on wetlands: The vulnerability of the Tunisian coast to EANM is a function of several factors, mainly the evolution of the climate on a global scale, the response of ocean waters in general and those of the Mediterranean in particular to climate change, the sensitivity of coastal systems natural and developed, and the national coastal management policy. In their evolution, certain factors are surrounded by uncertainties; hence the interest of the scenario approach in the evaluations of vulnerability and adaptation measures. This approach

combines two sets of assumptions: - A first set of hypotheses relating to the future evolution of the climate and sea level on a global scale, in the context of climate change; they represent the climatic constraints that weigh on the coastal fringe of Tunisia. These climatic constraints are the consequence of anthropogenic activities on a global scale and of international policy on climate change. - A second set of scenarios on a national scale relating to the evolution of the demographic and economic weight of the coast and to the national policy in terms of protection and adaptation of the coast. Despite their natural resilience, ecosystems today are often in an advanced state of degradation due to the pressure exerted on them by human activities. Climate change acts as a factor of acceleration of the processes at work (soil degradation, impoverishment of the ecological services rendered by ecosystems, etc.) that only the confirmation of the strategies undertaken would make it possible to limit. The submersion of certain low-lying wetlands will undoubtedly lead to new balances in ecosystems, the creation or disappearance of new landscapes, the degradation or improvement of environmental conditions. The future of these areas is nevertheless strongly conditioned by the anthropogenic activities at work on the coast. Taking into account the SRES scenarios of the Third Assessment Report (TAR) of the IPCC (2001), a number of recent studies on sea level variation in the Mediterranean and policy assumptions in terms of coastal management, three scenarios relating to the vulnerability of the Tunisian coastline to EANM due to climate change have been identified:

1. a scenario of maximum risk (Sc. MR) associated with a rise in sea level of 50 cm in 2100, and the absence of a national strategy for coastal adaptation to climate change;
2. a reference scenario (Sc. R) which corresponds to a rise in sea level of 38 cm in 2100 and the continuation of current policies in terms of occupation, development and protection of the coastal zone.
3. a minimum risk scenario (Sc. mR) associated with a sea level rise of 30 cm in 2100 and an effective policy for coastal adaptation to climate change;

For the assessment of the environmental and socio-economic vulnerability of the Tunisian coast, the maximum risk scenario (Sc. MR) was retained.

Most Significant Environmental Impacts in Tunisia, the risks associated with an EANM are manifested by erosion phenomena in the first place, then salinization of coastal aquifers and soils, or even their total submersion. Vulnerability is all the more marked as the topographic relief of the land on the coasts is low, and the land is made up of loose and permeable materials. Rocky coasts and cliffs are less vulnerable. Soft-scarp cliffs will be subject to retreat and rockfall. Marine erosion poses a serious threat to many segments of Tunisia's coastline. An EANM would accelerate the phenomenon and aggravate it. Shorelines that are low and host to valuable developments will be the most vulnerable. In the north of the country, the topography of the Tunisian islands and islets is always low, and is characterized, most often, by loose shores or evolving in soft materials. Consequently, an EANM would subject them to intense erosion, to a risk of salinization of the land or even their submersion. For example, the low topography and the active subsidence of the soils of the Kerkennah Islands expose them to a threat of submersion. Indeed, an EANM of 50 cm would cause the archipelago to lose 4,500 ha, which represents 30% of its total area.

Area concerned	**Submersible land**	**Loss of spaces in 2100 (in ha)**
Eastern coast of Cap Bon	With a current total area of around 460 hectares, more than 10 sebkhas will be trans-formed into lagoons of 730 hectares surrounded by low wetlands of 730 hectares	730

Areas subject to a risk of submersion are essentially wetlands (swamps, salt marshes, sebkhas and chotts) with disastrous consequences on biodiversity, ecological balances, coastal, port, hotel and residential facilities, and on infrastructure. basic. More than 8%, or 127 km of the total length of the current beaches, is affected by erosion.

Several border dunes have already disappeared or are in the process of disappearing. The fattened ribs now represent only 1% of the total length, or the equivalent of 16 km. In the Gulf of Hammamet we have 279 km of coastline with 237 km of stable linear and 42 km of unstable linear Some of the lagoons are hibernation areas for different species of birds and are home to many varieties of flora and fauna. They are generally of great economic interest; due to the significant fishing and aquaculture opportunities they offer. However, human activities such as fishing exert significant pressure on them. Summary estimate of the different types of pressure exerted on the coastal stretches studied

site	Estimated shrinkage by 2100 (cm /year)	Urbanized linear	Tourist linear miles	Industrial linear miles	Others miles
Gulf of hammamet (Korba, Nabeul, hammamet	38	9.5	12	.	26.5

Conclusion: Faced with the scale of the risks, it is essential to carry out an adaptation strategy for the Tunisian coast in the face of an accelerated rise in sea level due to climate change. This action plan should include strengthening oceanographic monitoring of sea level, and technical actions for the rehabilitation of degraded coasts, the safeguarding of coastal water resources, ecological and fishery resources, and coastal infrastructure.

To conclude, we insist on the need to safeguard the biological diversity of these lagoons which remains, despite the existence of disparate data, little known. In general, the lagoons are characterized by non-endemic flora and fauna which are not included in the inventory of endangered species. A future strong urbanization, along the edges of the lagoons, must be monitored and controlled. On the other hand, the sanitation and development of the Korba lagoon are operations considered urgent.

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The Readiness of Academic Institutions in Oman for the Fourth Industrial Revolution Skills

Dr. Maria Teresa Matriano
Assistant Professor, Centre for Post-Graduate Studies/Department of Management Studies

Mr. Qais Juma Al Haji
Qais Juma Al Haji, Head of Career Services, Alumni and External Affairs Department, Middle East College

Introduction: The Fourth Industrial Revolution, or Industry 4.0, is a representation of rapid technological changes. The World Economic Forum (2022) defines this era as where fundamental changes take place in the way people live and relate to other individuals. Thus, it is considered a new period in human development, influenced by extraordinary advancement in technology that is present in many parts of the world. It is evident in the Sultanate of Oman that the Fourth Industrial Revolution also influenced the way economic activities and businesses were conducted. However, this period is more than just the development of advanced society, as it is also related to the process of closing the gap between the biological, digital, and physical worlds. Therefore, living in the industry 4.0 era would also mean that Omani graduates must also possess well-developed skills that will enable them to cope with industry changes, opportunities, and challenges, which will also increase their employability in the future. There are many skills that are needed for the Fourth Industrial Revolution period. These skills include but are not limited to creativity, analytical and critical thinking skills, communication skills, decision-making skills, cultural awareness, technology skills, and the ability to embrace change. Relatively, academic institutions across the Sultanate play significant roles in instilling these skills in students. The goal of this study is to explore the readiness of academic institutions in Oman for the Fourth Industrial Revolution Skills, including the period's impact on Oman education, current teaching practices, and the challenges and opportunities in teaching Industry 4.0 skills. It is also essential to explore the future of academic institutions in the Sultanate of Oman, including the recommended approaches to cope with the fast-phase changes occurring in the education sector. The Fourth Industrial Revolution offers great opportunities for Omani students to explore their abilities as they prepare for their new roles and responsibilities. At the same time, academic institutions in the Sultanate of Oman must be ready to provide Industry 4.0 skills, as students highly depend on them to gain the knowledge and competitiveness needed for future success.

The Influence of the Fourth Industrial Revolution on Oman Education To understand the readiness of academic institutions in Oman for the Fourth Industrial Revolution, it is essential to look into the influence of this period on Oman's education first. Since the majority of the ideas regarding this revolution are related to technological development, the effects and influences focus on the roles of innovation in education. Innovative ideas have already been integrated with the way curriculums have been developed. From knowledge-based education, Industry 4.0 had created what was called Education 4.0, which focuses on expanding innovation-based education. Essentially, the Education 4.0 model enables academic institutions to remodel their curriculum based on the idea that teachers and students must use their ability not only to explore things but also to discover something new. A good example would be the use of the Penta Helix Model of Innovation, a model that encourages cooperation between the academe, government, business, and society among higher education institutions in Oman as a way to enhance students' growth and development (Halibas et al., 2017). With the Education model 4.0, Industry 4.0 also impacted academic institutions in Oman by creating the need for these institutions to enhance the ability of teachers to provide a tailor-made learning process (Singh & Tilak, 2020). Although understanding each student's learning ability has been an existing practice for many academic institutions in Oman, the emergence of Education 4.0 has also created the need for these institutions to ensure that the individualized teaching approach must be part of the school's educational framework. In addition, this model also changed the roles of Omani teachers toward becoming mentors. There are significant differences between educators being tagged as 'teachers' and educators being viewed as mentors. Unlike the usual teaching process, a teacher-mentor in the age of Industry 4.0 is expected to offer supervision, support, and suggestions to his or her colleagues so they can improve their skills and develop themselves professionally. Another impact of Industry 4.0 on Oman education is the adoption of various techniques in online education, which can help in gaining different Fourth Industrial Revolution skills. For instance, the use of different technology platforms enhances the teachers' knowledge in terms of realizing the extent of the Internet of Things (IoT) in education. Indeed, there is a systemic shift in the way online learning is being utilized by academic institutions. Furthermore, many schools in the Sultanate of Oman have developed ways that will increase the flexibility of teaching and learning by using different types of education technology, such as using tablets, laptops, and even mobile devices. Through these strategic and flexible approaches to online education, students and teachers now have the opportunity to share knowledge and information, which enhances their technical skills and ability to embrace changes. Moreover, the arrival of the Fourth Industrial Revolution also increased the need for Omani students to become much more competitive than the previous years, especially since flexibility in skills plays a significant role in getting hired in the constantly growing industries in Oman. As part of the result, Industry 4.0 also set off various calls for significant educational reforms in the Sultanate, which also uncovered a wide array of education issues and challenges that have existed for many years. For instance, the need to improve teaching practices and teaching collaboratives (Nasser, 2019). Thus, many academic institutions in Oman are now looking forward to becoming internationalized, as it has also become the norm across different industries. In fact, a new term has emerged, which is known as university 4.0. The term was derived from the ideas of Industry 4.0, which believes that academic institutions should not just limit their knowledge provision from the usual topics. Instead, these institutions must explore new ways to integrate academic knowledge with soft skills as part of the industry 4.0 skills. The effects of the Fourth Industrial Revolution on academic institutions in Oman also brought up the need for better information technology infrastructure within the campus. This aspect involves different sets of technological components that will assist teachers in teaching Industry 4.0 skills. Academic institutions in Oman have increased their funding to improve their internet connectivity and to purchase better laptops and desktop computers. However, not all academic institutions in the Sultanate have enough funds to upgrade their systems and hire better trainers who will train their teaching staff.

Necessary Skills in teaching the Fourth Industrial Revolution Skills. It is essential for educators or teachers to have the necessary skills for the Fourth Industrial Revolution for them to teach the same skills to their students. One of the skills needed for the industry 4.0 would be a higher level of creativity among educators. One of the Fourth Industrial Revolution skills that will identify the readiness of academic institutions in Oman is creativity, the

creativity of educators. This type of skill is significant for Omani schools, especially when preparing students for real-life challenges. For example, the Sultanate of Oman is looking forward to having a modern manufacturing base that will utilize the Omani population's creativity (United Nations Industrial Development Organization, 2019). Similar to other industries, the manufacturing industry in Oman is constantly expanding. Thus, this expansion necessitates the Omani workforce's creativity to ensure business success. Therefore, academic institutions must ensure that educators constantly strive to enhance their creativity and ensure that part of the student's academic foundation includes being creative in different aspects. Hence, creativity is more than just being able to recreate and improve things because teaching this skill to Omani students will enable them to utilize unique approaches to solving problems by generating new ideas. Apart from enhancing students' creativity, academic institutions in Oman should also have new ways of teaching critical thinking skills. In the educational context of Oman, critical thinking plays a critical role in human life. More than just its application in the academic context, Omani educators believe that the complexities present in modern life require citizens to think more critically (Samarasinghe, 2017). Thus, it is equally important that teachers have a high level of critical thinking abilities, as training students to become critical thinkers would be more challenging than the act of thinking itself. Another essential reason why fostering critical thinking skills among Omani students is for them to become more effective learners. Hence, being an effective critical thinker will also open up opportunities for leadership roles. Relatively, the Fourth Industrial Revolution demands more than just being able to answer questions, as it will require students, as future leaders, to become changemakers in their respective fields and professions. However, many of the developments in the Fourth Industrial Revolution are technology-related. Therefore, it is also crucial for the academic institutions in Oman to become competitive when it comes to enhancing the students' technological skills. According to Azmi et al. (2018), it is an advantage for employees and potential candidates to have proficiency in computer skills. In addition, technology skills are vital to employment because many companies across different industries are embracing automation and the application of new forms of technology in their business processes. Therefore, the readiness of academic institutions in Oman for Industry 4.0 should involve the educators' ability to possess competitive technological skills. The essence of technology is evident across different aspects, such as in academic, personal, and personal contexts. Even non-IT roles require employees to have knowledge of basic computing. Relatively, many Omani students already have a basic knowledge of computers. However, in the context of the Fourth Industrial Revolution, having basic computer knowledge was not enough, especially in terms of transforming the lives of the Omani people through the use of technology. Therefore, the readiness of academic institutions in Oman to teach Industry 4.0 skills should also focus on enhancing students' technical proficiency. The abovementioned skills are all crucial for the student's ability to embrace change, which universities and colleges should also embrace and be able to instill in students' characteristics. Embracing change equates to an individual's ability to portray open-mindedness to new proposals and ideas. In the advent of the Fourth Industrial Revolution, adopting and being able to adjust to industry changes is valuable trait learners and educators should possess. There must be more teachers who are open to new ways of teaching through the utilization of technology, as it will add up to the overall readiness of the academic institutions in the Sultanate of Oman. After all, these institutions have significant roles in the modern economy by producing talents that have the skills needed for the Fourth Industrial Revolution. Hence, nurturing the Omani students toward becoming Industry 4.0 leaders. Then again, the industry 4.0 skills are not limited to these elements. That is why Omani academic institutions must adopt the concepts provided by the Education 4.0 model.

Omani Academic Institutions' Current Teaching Practice to Increase Readiness for Industry 4.0 Academic institutions in the Sultanate of Oman use different approaches in teaching the Fourth Industrial Revolution skills. One of the most common is the effort to improve and expand the coverage of distance learning and hybrid education. Hence, both of these education models are viewed as the future of learning, which is in line with the concept of Industry 4.0. However, Oman is still in the process of fully adopting the different practices in online education due to some barriers to the concept's expansion. The case of Omani academic institutions shows that the introduction of this form of teaching strategy is still in the process of development, as many of these institutions

are still reviewing their policies and current provisions regarding online and distance learning. Thus, the recent pandemic has forced many schools to transform their teaching practices due to health risks brought by the pandemic, which sped up the process of adopting technology-based teaching methods. Further, multiple Omani colleges and universities had to develop new teaching and learning models for their students, despite the absence of in-classroom discussion. Since it was almost virtually impossible to proceed with the old methods of teaching, available technological tools have been utilized to ensure the learning continuity of Omani students. There was an exponential increase in the use of social media, learning management software, and other education-related tools during the recent health crisis, which may have also doubled the use of technology in education. For instance, many schools in Oman have already introduced Artificial Intelligence in their educational framework. Thus, there was an increase in the utilization of the internet of things, such as encouraging the Omani basic education students to use tablets and e-book readers inside their classrooms (Al-Huneini, 2017). In addition, the current teaching practice related to the industry 4.0 skills in Omani schools is focused on several critical aspects, such as student-centered learning, expansion of experiential learning, and the application of cooperative education. It is also evident that academic institutions in Oman are encouraged to switch from using textbooks as the main source of information to portable and technology-based alternatives, such as soft copies of school materials. Moreover, part of Oman's academic institutions' teaching practice that enhances their readiness for the Fourth Industrial Revolution is also evident in English for Specific Purposes or ESP, wherein educators utilize skill-based teaching methods for tertiary education (Heckadon & Tuzlukova, 2020). The need for incorporating Industry 4.0 skills into Omani education's curriculum is currently existing as part of the overall practice across the Sultanate, especially for schools that are located in cities. Thus, teaching and learning ESP were evidently affected by the constant evolution of technology, which also prompted academic institutions to change the way they provide education to their students to increase their readiness and competitiveness in the era of the Fourth Industrial Revolution. One of the perfect examples would be the academic institutions' utilization of video conferencing for distant learners. Video conferencing through the use of various platforms has been part of the teaching practices of academic institutions in the Sultanate of Oman. Although not all student has the financial and technical capability to attend this type of class discussion, many schools are now using video conferencing platforms, such as Zoom, Skype, or Google Classroom. According to a recent study conducted by Jain V. and Jain P. (2022), the attitude of Omani students toward acceptance and use of video conferencing tools depends on several factors, such as performance expectancy, social influence, and effort expectancy. Hence, academicians' use of video conferencing tools also depends on facilitating conditions and their behavioral intention (Jain V. & Jain P., 2022). In essence, the utilization of these tools by the Omani academic institutions is predicted by the teachers' attitude toward video conferencing platforms. Relatively, these behaviors are crucial for enhancing the readiness of academic institutions they are working for to teach Industry 4.0 skills. Otherwise, it is highly likely that these institutions and Omani teachers are experiencing challenges with adopting Industry 4.0's effects on Oman on education.

Challenges and Opportunities in Teaching the 4th Industrial Revolution Skills The current curriculum of academic institutions in Oman must be based on the concept or surrounds the ideologies of Industry 4.0. Although it is essential that the curriculum should directly provide the knowledge needed by students, it should also meet the idea of closing the gap between physical, biological, and technical aspects of technology. Therefore, the curriculum must ensure that the teaching methods must create much wider positive societal effects through the use of technology and innovation. However, there are multiple challenges the academic institutions in Oman are currently facing. For instance, many schools in the Sultanate want to adopt AI technology but are still hesitant about the potential effects of technology on teaching non-IT skills to students. There is still a question of whether or not these new teaching methods will lead to beneficial outcomes. According to Kayembe and Nel (2019), adopting new methods of teaching using advanced technology requires a strong theoretical basis for digital education. Putting the abovementioned issue in the context of Oman education also raises the question of whether or not the academic institutions in the country already have the technical infrastructure and enough competitiveness to pass the industry 4.0 skills to Omani students. Hence, the hesitation of some educational

institutions in Oman regarding the need for a strong theoretical basis will also lead to the possibility that only the technical skills will be taught to students, which will leave the other skills behind. As a result, the institutions themselves will be viewed as unprepared for the Fourth Industrial Revolution. Relatively, this issue will leave an unwanted idea that they are also not capable of teaching the student with necessary Industry 4.0 skills. That is why, along with the constant modernization and adoption of digital learning, academic institutions in Oman must ensure that the adoption of the Education 4.0 model must be applied to all subjects and not just to IT-related courses and topics (Ismail et al., 2020). Furthermore, this application also necessitates the need for Omani teachers to gain skills and knowledge through the adaption of the latest and innovative teaching methods so they can help in producing students who are innovative, creative, talented and more fit for the Fourth Industrial Revolution. Nevertheless, this initiative will require enough funding for additional equipment, training, and necessary tools to achieve optimum teaching outcomes, which is another issue faced by many tertiary academic institutions in Oman. Funding is a significant issue for many colleges and universities in the Sultanate of Oman. Ensuring a world-class learning environment requires a relatively high cost, especially when students choose to continue their studies at home instead of traveling overseas to enroll at major universities in other nations. The Omani government recognizes the funding issue as a potentially bigger problem in the future, and as a response, the Omani government has provided a one-time endowment to multiple universities across the Sultanate. The funding issue of the academic institutions in Oman is also viewed as an influential factor in the educational success of the country. In fact, Nasser (2019) also explained that this is one of the greatest challenges faced by the Ministry of Education in relation to bringing the academic outcomes of Omani students to the level of international standards. Despite the challenges and issues faced by Omani academic institutions regarding teaching students the skills of Industry 4.0, there are opportunities for these institutions to expand and embrace new forms of technology and apply them to transform the skills of students. Specifically, Omani educators now have the opportunity to leverage their competencies when it comes to nurturing their students to become productive members of society in the future. Educators now have the opportunity to enhance their skills and contribute to the readiness of their academic institutions for the Fourth Industrial Revolution. The expansion of technology use is evident across all levels of education in Oman. According to Oxford Business Group (2022), 71% of the primary schools in the Sultanate are already using internet-assisted instructions while 87% of secondary school teachers in the country use personal computers or laptops to present instructional materials to their students. Moreover, colleges and universities should acknowledge the presence of various challenges and assess whether these issues are caused by institutional weakness. In that case, Omani schools can develop new strategies that will increase the whole institution's readiness for teaching Industry 4.0 and, if possible, adopt the best practices of other academic institutions outside the Sultanate. There is a high possibility that Omani academic institutions might experience additional challenges in the future. One of these challenges would be the constant increase in the number of tertiary student enrollees, which will increase the demand for better educational quality in terms of teaching the industry 4.0 skills to students. Based on the report by ICEF Monitor (2022), the enrollment rate for tertiary students increased from 15% in 2002 to 28.1% in 2011, as the result of the government's effort to expand the nation's domestic higher education system. Therefore, it is essential to understand whether or not the educational institutions in Oman are now equipped with the adequate capabilities for the Forth Industrial Revolution Skills. The again, colleges and universities across the Sultanate must take advantage of the opportunities for better adoption of Industry 4.0 skills.

The Future of Academic Institutions in Relation to the Industry 4.0 Skills There are multiple possibilities that could happen in the future when it comes to academic institutions' efforts to enhance their readiness for Industry 4.0 skills. Although it is possible that much of the teaching practices will remain in the status quo, there is a higher chance that academic institutions in Oman will continue to develop the capabilities, skills, and knowledge of their educators to instill Industry 4.0 skills in their students. Relatively, the Omani government will also continue its efforts to develop new programs that will help public and private academic institutions in the country, to ensure that they are well-equipped and more than ready to provide new sets of skills to Omani students. There will be

various improvements among the academic institutions in Oman in the future, which will also improve the way teachers provide innovative learning to their students. In addition, the improvements will be focused on various dimensions, such as control learning, learning opportunities, and the development of instructional activities (Elayyan, 2021). Under the control learning dimension, the future application of Industry 4.0 in Oman education will likely improve human interactions between the students and their teachers. Also, it is expected that in the future, the application of Industry 4.0 skills will also increase the sharing of experiences between teachers and students (Elayyan, 2021). The learning opportunities in the future will not just b on the part of the students but also for the educators themselves. Future academic institutions that have adequate Industry 4.0 proficiencies will be able to provide learning better learning database and resources, which will be more beneficial for Omani students. On the other hand, there are current practices that will remain significant in the future teaching practices of teachers and academic institutions, such as permitting students to learn anytime, regardless of their geographic location. Similarly, Omani institutions will allow additional remote teaching opportunities for teachers who have adequate technical skills to provide the same level of quality education. Thus, Omani academic institutions will become more supportive of social learning as part of a much broader concept of Education 4.0 based on the context of Industry 4.0. Therefore, it is also expected that the positive effects of Industry 4.0 skills on colleges and universities will serve as motivational factors that will be expanded throughout other schools in Oman. Likewise, the future outcomes of learning opportunities in the application of the Fourth Industrial Revolution skills will also improve global learning, wherein no restrictions and boundaries can prevent Omani students from obtaining knowledge, making most of the Omani academic institutions more prepared for Industry 4.0. Relatively, academic institutions are also expected to develop new ways of creating content instructional activities (Elayyan, 2021). Academic institutions in Oman will improve their commitment to teaching educational ethics while the modification in instructional materials will continue to ensure that they are aligned with global educational standards. Relatively, all course learning outcomes are likely to transform into more Industry 4.0-related. Although some nations already introduced the use of robots inside classrooms a few years ago, the future of academic institutions in Oman is likely to have the same application of technology as well. For instance, Japan introduced a robotic teacher back in 2018 that taught English to students (Scutti, 2018). In the context of Oman education, it is possible that robotics will also be introduced to classrooms, although it may take long years for these institutions to fully implement this form of a classroom setting, especially since there are other things to consider, such as the cultural aspects, educational system, policies, and the willingness of Omani school administrators to embrace this type of technology. Currently, their academic institutions and teachers in Oman are in the process of enhancing their Fourth Industrial Revolution skills. Although not all of them are fully prepared for the industry 4.0 adoption, it is evident that many colleges and universities are now capable of transforming their students to become more prepared for their future roles. Then again, Industry 4.0 is not the final period of development in society, as the Fifth Industrial Revolution is expected to happen in the near future, which will improve the combined capabilities of humans and machines (George A.S. & George A.H., 2020).

Recommendations: Business organizations are not the only ones that need to get ready for the challenges and opportunities brought by the Fourth Industrial Revolution. The academic institutions, teachers, and students must also prepare for this period, along with the skills of the future. It is recommended that academic institutions in Oman must enhance their readiness for the Fourth Industrial Revolution skills in various ways. Primarily, Omani academic institutions in Oman must continue to redefine the purpose of education, from preparing students for their future careers to preparing them to use their skills and knowledge to make positive contributions to society. In addition, it is also recommended that schools in Oman must develop new approaches to teaching Science, Technology, Engineering, and Math (STEM), as these subjects will become more essential for future employees (Marr, 2019). Redefining the purpose of education also entails the idea that educational institutions' roles are more than just the process of teaching and learning. Hence, every educational institution in the Sultanate must understand that the Fourth Industrial Revolution Skills are more than just having enough knowledge on different subjects. These institutions must understand the value of cooperation between the physical and virtual systems.

After all the Fourth Industrial Revolution is not just about machines and various forms of technologies being connected to each other. It is an era where people must learn how these technologies can be used to uplift the lives of the people. Furthermore, academic institutions should not limit their capabilities to developing the student's technical skills. Instead, these institutions in Oman must give additional consideration to transforming Omani students' potential in terms of imagination, creativity, critical thinking, physical dexterity, and improved social interaction. The reason behind this recommendation is that Omanis must also learn the value of lifelong learning since changes in society happen constantly. Therefore, to keep up with these changes, academic institutions must also develop strategies that will keep the curriculum relevant to societal changes, technological advancements, and the ways that Industry 4.0 skills can help alleviate human suffering. With the help of the Ministry of Education and other concerned agencies, it is recommended that the academic institutions in Oman must improve the collaboration between universities and various industries (Chryssou, 2020). This collaboration will give academic institutions the idea about in-demand skills in today's industries and obtain ideas on how these skills can be instilled into students' proficiency.

Conclusion: The readiness of academic institutions in Oman regarding the Fourth Industrial Revolution skills is a topic that helped understand other aspects surrounding this period of development. Generally, the ideas about Industry 4.0 are focused on technological aspects and how they helped in the creation of the Education 4.0 model. Another interesting highlight in this study is the systemic transformation of online learning in Oman, which shows that it is now more flexible after the recent global health crisis. The way Industry 4.0 skills are being taught was done through the help of the internet of things IoT, such as smartphones and other gadgets. Then again, it is a fact that not all students are capable of attending online classes, as not all of them have the financial capabilities to have their own internet subscriptions and to purchase decent personal computers for distant learning. Furthermore, this study also emphasized the recent calls for educational reforms in Oman due to various problems being encountered by academic institutions. This issue revealed a broad range of other problems in education across the country, such as the need to improve current teaching methods. As a result, many of the academic institutions in the Sultanate are unable to provide adequate Industry 4.0 skills since their teachers are also in need of support. With this problem, educators must strive to improve their creativity across different subjects so they can also teach Omani students about the best approach to creating new ideas in solving different problems. However, funding issue among academic institutions also limits their capabilities to teach Industry 4.0 skills, which the government addressed through an endowment. The study also explains that, despite the importance of basic computer knowledge in today's period, it may not be enough, especially in terms of transforming lives through technology. That is why the readiness of academic institutions in Oman for the Fourth Industrial Revolution skills must be viewed as more than just the use of technology to fulfill Omani students' future roles. It must be considered as an opportunity to integrate the use of current forms of technology to develop new educational agendas, such as Oman's introduction of AI to its educational framework, including the effective collaboration between Omani schools and different industries. The Fourth Industrial Revolution is a period that brings challenges and opportunities to the educational system in the Sultanate of Oman. Educational institutions must acknowledge the presence of various challenges brought by Industry 4.0, such as the need for better teaching practice and efficient utilization of technology in education. Being able to identify these issues will also help academic institutions in Oman develop strategies that will increase their readiness for the Fourth Industrial Revolution. Hence, enabling them to teach the necessary Industry 4.0 skills to their students, which will also help them balance their skills through digital transformation initiated by their respective educational institutions.

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Two Worlds will Fit in Me, But I won't Fit in this World

Durdane Gurbanova
English Teacher, Mingachevir State University, Mingachevir city, Republic of Azerbaijan

Two worlds will fit in me I don't fit in this world. (Nasimi 1369-1417)

The author of these poems is Imadaddin Nasimi, a great poet, thinker and philosopher of the Azerbaijani people. The secret of Nasimi is that the poet praised the feelings, excitement, desires and wishes of people. As long as

humanity lives, Nasimi will also live. This article is dedicated to the 650th anniversary of the great master Imadaddin Nasimi, who raised the Azerbaijani language to the level of a literary and artistic language. Nasimi valued scientists, wise people and those who were able to understand that science and scientific knowledge are the driving force of human society and human life. Nasimi's scientific heritage is extensive, rich, comprehensive and universal. One of the issues that he considered in his writings was, to be more precise, the problem of the creation of matter, the universe and, finally, life. It is well known that in ancient Greek and Eastern philosophy there was much understanding of the origin of the universe and life. One of them is the Greek philosopher Empedocles (490 BC - 430 BC). According to Empedocles, the universe is made up of four elements - fire, water, air, and earth. This view dominated ancient literature for a long time. The great philosopher Plato (427 BC - 347 BC) wrote: "Water, condensing, forms stones and earth ...". Taras Shevchenko (1814-1861), a great Ukrainian poet and thinker, writer and ethnographer wrote: I fell in love to your sadness Orphan Untalented. That's me Share dropped! Such was the fate of Nasimi. Azerbaijani literature is a treasury of history. The exploration of the precious, beautiful monuments and artifacts that remain in this treasure is one of the most promising and outstanding tasks. I think this article about life and work in connection with the 650th anniversary of Nasimi will be very useful. This work, which is the product of hard work, great taste and knowledge, can point the modern reader in the right direction. The great poet-philosopher Imadaddin Nasimi laid the foundation for our literary and philosophical poetry in the history of Azerbaijani literature, enriched our artistic art in form and content. His poems, which are the source of his wisdom, are enthusiastic Orientalists written about the people of the Middle Ages. The poet reflected the vision of life and man in poetry. Seyyid Imadaddin Nasimi was born in 1369 in the city of Shamakhi. Nasimi studied science from childhood, shining with his delicate taste and talent. His poems, written under the pseudonym Sayyid, Husseini, Nasimi, fall in love, love and find their way to hearts in a short time. Imadaddin is the nickname of Nasimi. This nickname was given to him as a sign of respect. In the sources it is known as Nasimi, Sayyid Nasimi or Imadaddin.
The 16th-century memoirist Latifi writes about Nasimi's brother Shah Khandan, who is known by the nickname Julidami (scattered hair), and claims that he died in 1426. Nasimi, who walked and lived like a dervish all his life, does not name his permanent place of residence, and this was not without reason. Of course, this dervish was not an ordinary dervish, but a poet, a caring, wise man who loved life, cared for and loved his homeland. Among the works of the poet, the names of the cities of Shamakhi, Baku, Bursa, Karaman, Baghdad, Maresh, Damascus and Aleppo are mentioned. These words also show that Nasimi was born in Shamakhi, at some time lived in Baku and left the city because his associates were persecuted. Nasimi, who fought for his life and fought for his faith, was forced to skip various cities in the East. He couldn't stay in one place because he was constantly being followed. The political situation in Azerbaijan during these years was very confused. In his teenage years, Nasimi, Emir Teymur (1370-1405) invaded Azerbaijan and destroyed cities and villages. The Shirvan ruler Ibrahim I (1382-1417) makes an alliance with Emir Teymur and saves Shirvan, but soon the Khan of the Golden Horde attacks Azerbaijan. As soon as the stopped Khan left, Emir Teymur again trampled Azerbaijan and surrounded the Alinje fortress in Nakhchivan for almost 14 years. Then he overthrows Gabala and appoints Miranshah's son as ruler in his place in Azerbaijan. There were popular uprisings against the Timurids. In such a difficult time, Nasimi met with Fazlullah Naimi in Baku in 1394 and accepted the Gurufi (Khurafi) sect and wrote poems in this spirit. In 1394, Miranshah executed F. Naimi near the Alinja fortress during the conspiracy of Ibrahim I, the ruler of Shirvan. The death of the leader of the sect saddened all Khurafis, including Nasimi. At the beginning of the 14th century in northern Italy there was a rebellion among the peasants and the poor against ecclesiastical and feudal rules. The leader of the uprising was Dolcino (1275-1307). Dolcino was a student of Gerardo Segarelli. After the execution of his teacher, he led the movement. Dante talks about him in his Divine Comedy. In the folklore of Italy, he is remembered as the hero of a fairy tale. But who is Dolcino? Why does Dante refer to him in his famous comedy? S. Zhidkov writes: Dolcino ... first met this name with the help of Dante's poem (1265-1321) "The Divine Comedy". The ordinary craftsman fought for social equality, but tried through armed rebellion. But it failed. The Dolcino uprising was crushed in 1307. The rebels were captured and executed. Who were his contemporaries? Is it possible to compare Nasimi with Dolcino? If we compare, we will see that Dolcino fought for equality only in his province, and Nasimi

in general throughout the world. The path to freedom is always different. One path of rebellion, another path of humanity! Nasimi said: “There are no strong and weak people. There is a literate person and an imperfect, illiterate person. But he (Nasimi), like some of his fellow soldiers, does not support the government. To spread the ideas of sectarianism, he went to Anatolia from his country. In Bursa, he meets Sheikh, a poet-translator who translated Nizami's poem "Khosrov and Shirin" into Turkish. Bright, bold thoughts complement the glory of the poet day by day. A poet named Rafii expresses his love for Nasimi in his work "Basharatname" as a martyr of love, an artist who spreads the secrets of the Khurifists. At the same time, he tells in grief, heartbreakingly, that the poet was thrown into prison for months and years. During the reign of the Ottoman Sultan Murad I (1360-1389), the Khurafis were severely punished in Bursa and Anatolia. Therefore, Nasimi could not stay here long enough, he went to the city of Aleppo. Speaking about Nasimi, the vizier of Hussein Baygar, Jamaledaddin Hussein, wrote in his work “Majalisul-Ushshah” (“Meeting of Lovers”): “When Nasimi's heart wavered like an ocean, his words and letters were thrown aside. They did not understand the words of the poet. A man in Aleppo asks a poet: -What do you see on the face of this young man, which shows you so much excitement? - The poet answers: - I see the image of God in the mirror of his face. The man said: - We see the young man too, so why not see it in our eyes? The poet replied: “This state bird did not invest your abilities and this lucky bird did not overshadow your government.” The Arab historian of the 15th century, Muffakaddin Ahmed ibn Ibrahim al-Halabi, gave accurate information about the death of Nasimi in his work "Kunuzuz - Zahab," ("Golden Treasures, History of Aleppo"). Nasimi was killed in 1417 in Aleppo with extreme cruelty. The grave of the poet is still in the city of Aleppo... Those who visit his grave are called "nasimi" as a mark of respect. In addition to Nasimi's philosophical poems, there are everyday poems. His works reflect deep knowledge of sciences and philosophical movements, but what is even more valuable - the soul of a great poet lives in his poems. Although the pseudonym "Nashimi" means "light breeze", this breeze touches the heart, leaving a lasting impression that is very difficult to put into words. In poetry, the poet puts human happiness, freedom and free will in the foreground. Nasimi's poetry, which is an example of love and beauty, wisdom and understanding, has made a great contribution to the literature of the Turkish and other peoples. His immortal poems are still loved and today, finding the way to hearts, they have not lost their freshness. Nasimi's poem gives wisdom to the reader, elevates him morally, elevates him to heaven and calls for struggle and faith. "Sunset at sunset", but Nasimi's art does not disappear, but shines from day to day on new horizons. Shining like the sun of love, the poet brought clarity and compassion to the heavens of medieval poetry, raised our language and artistic speech to new heights. Nasimi is one of the geniuses who created the system of the theory of noble love, praising the purity and highness of the human spirit. In all his works, he speaks of love, separation and happiness, demonstrating the importance of skill, courage, craftsmanship and hard work for humanity. In his works, he advises his people, first of all, to preserve their past, history, culture, literature and music. I recommend not to forget the geniuses who created the culture, to constantly remember them. This is especially important for educating the next generation.

An Investigation into Pre-Service Teachers’ Perceptions of Their Professionalism: A Case Study of Libyan EFL Teachers Training Programme

Hassin Salem
Vocational Education and Professional Developments, Higher Institution Centre of Water Affairs, Libya

Introduction: The aim of this assignment is to design and evaluate a data collection instrument and discuss the ethical issues associated with the said instrument. Furthermore, a pilot study was conducted with two selected participants from a University in the United Kingdom (UK). It is hope that this process will inform my own research

approach and guide me in the completion of my final thesis in terms of selecting an appropriate methodology. The participants are also chosen for the purposes of the pilot study to fulfil the assignment requirements. Hence, the participants are not the actual intended sample as this is intended to be done in Libya. However, efforts are made to make sure that each participant had some knowledge about the training courses offered in Libya to teach EFL in schools. Therefore, a non-probability sampling is associated with this process. The non-probability sampling is justified because I am interested only with EFL teachers who received training. Furthermore, gauging the perception of people has a particular methodological guide in research processes (Punch and Oancea, 2014 and Gray, 2014). Qualitative approach within the interpretivist paradigm is used to gauge the perceptions, opinion and experiences of people (Gray, 2014). This implies that a primary data collection, including interviews, observations and questionnaires could be adopted. Moreover, it has also been argued that interviews are appropriate to provide an in-depth understanding of the perception of people (Saunders, Lewis, and Thornhill, 2012; Punch and Oancea, 2014 and Gray, 2014). This will be discussed in more detail in order to justify the extent to which interviews are more appropriate relative to the other data collection instrument. Furthermore, qualitative approach where primary data collection instruments such as interviews are used make use of qualitative methods of analysing and interpreting data, including thematic, content, phenomenology and grounded theory method of analysis (Saunders et al., 2012). This will also be discussed in more detail in order to justify the appropriate method of analysing and interpreting qualitative data. The main theme of the assignment constitutes selecting an appropriate primary data collection instrument and evaluate it against other instruments. It also looks at the ethical issues inherent in this type of data collection. The discussion in the pilot study involves an overview of the study, sampling, method use, a quick provisional analysis and a discussion on the broad approach to be used to address the research questions. I intend to consider four research questions in my final thesis. However, this assignment will focus on only one due to the word limitation of the essay. The question seeks to determine how EFL is taught and the training given to teachers by the Libyan Higher Education Ministry (HEM). I will first discuss the data collection instrument and its design in the next section. This will include justifying the appropriate method of data collection against the other instruments. This will be followed by selecting an appropriate method of analysing the primary data collected from the pilot study. It is hoped that this will also inform my own methodology in the final thesis. The remaining sections will evaluate further the data collection instruments, the ethical issues it raised and a detail description of the pilot study. The pilot study is discussed at the end in order to allow smooth flow of the structure of a research paper from data collection to analysis section. The final section of the paper is the conclusion which gives a summary of the discussions.

Designing a data collection Instrument: A data collection instrument refers to the tool that a researcher uses to gather data. The data collection method could depend on the type of research design and how it addresses the research question. The quantitative approach to research is likely to apply a secondary data collection instrument, including existing data from institutions. A questionnaire and interviews could also be used to collect primary data that could be coded and analysed quantitatively. Nonetheless, qualitative approach to research is likely to apply a primary data collection instrument, including interviews, questionnaires and observations. Creswell (2012) discussed that there is no right and wrong approach to research. The researcher should justify the approach he/she intends to use in order to address the research question. The aim of this essay is to investigate the perception of Libyan EFL pre-service teacher's professionalism base on the national teacher training programme they received in Libya. I believe that primary data collection is the appropriate approach to collect data to gauge the perception of teachers and that this has been justified in the existing literature (Punch and Oancea, 2014 and Gray, 2014). Therefore, several options are available to collect primary data, including questionnaires, observations and interviews. Each of these instruments have their own advantage and disadvantage. While questionnaires are cost effective in terms of money and time and being easy to administer and generate large response rates; interviews could generate in-depth responses and clarity about unclear issues that questionnaires could not do (Creswell, 2009 and Gray, 2014). Observations require the researcher deducing data from the behaviour of the participants of the study. Therefore, the data could be bias because it is based on the interpretation of the researcher rather than

what the participants actually meant. Interviews and observations are more difficult to administer, more expensive in terms of time and money and does not generate large response rates relative to questionnaires. Therefore, the key to justifying the appropriate data collection instrument is to ask which instrument is most suited to gauge the perception of people. I believe that interview is the most appropriate approach to gauge the perception of teachers relative to observation and questionnaires. Moreover, I believe that observations should be an additional instrument along either questionnaires or interviews in order to validate the extent to which claims made in the interview are consistent with the interviews and questionnaires. An interview is a verbal exchange between two or more individuals where one tries to acquire information from the other person in order to have a better understanding of that person (Gray, 2014). Research based on trying to understand people's opinions, attitudes, experiences, values and processes usually adopt interviews as a method of data collection. Therefore, my justification for using interviews is consistent with the existing methodologies in this area of research. Interview is good at exploring people's perceptions, meanings, definitions of situations and constructions of reality (Punch and Oancea, 2014). Moreover, interview allows the researcher to pose follow up questions in order to clarify issues. As Jones (1985, p.46 cited in Punch and Oancea, 2014, p. 182) put it; In order to understand other persons' constructions of reality, we would do well to ask them…and to ask them in such a way that they can tell us in their terms (rather than those imposed rigidly and a priori by ourselves) and in a depth which addresses the rich context that is the substance of their meanings. Jones (1985) proposition suggest that perceptions of people are better understood when we ask question (interviews) rather than the rigidities pose by questionnaires and observation to some degree. In conducting an interview, the interviewer should have a good listening skill, skillful at personal interaction, question framing and gentle probing for elaboration (Marshall and Rossman ,1999, p. 110). According to Gibbs (2012), the interviewer should be knowledgeable (experience of doing interview) and the interview should be structured, including an introduction, the topic to be discussed in the interview and ethical issues to be considered. The main body of the interview should comprise of questions, topic, prompts, probes, recaps and summaries and at the end the interviewee should be thank for taking part. Furthermore, the interviewee could be asked at the end whether he/she has additional points to be made. The interviewer should be clear, gentle, sensitive, open, steering, critical and should be able to remember and interpret. There are several types of interviews at the disposal of the interviewer that shall be discussed in the next subsection.

Types of Interviews: In the previous section, I discussed the different types of data collection instruments and their association with a particular research design. The research designs also have philosophical underpinning, where qualitative research is associated with the interpretivist paradigm while quantitative research is associated with the positivist and post-positivist paradigm (Creswell, 2009). I also justified the use of interview as a method of data collection relative to questionnaires and observations. This section aims to highlight further the various forms of conducting interviews and which is more appropriate for this study, including face-to face, focus group, mail or self-administered questionnaires and telephone interview (Punch, 2009 and Saunders et al., 2012). Modern technology has also allowed the use of other medium of communication for interview, including the use of Viber, WhatsApp, Facebook and Instagram. In this assignment, I will focus on face-to-face interview which will be used for the pilot study. Given that it is a pilot study with limited number of participants, I believe that face –to- face interview will be less time consuming and less expensive because only two participants are going to be used in this pilot study. In this type of interview, I will be the interviewer and my participants - the interviewee and conduct the exercise at a place without any distraction. Interviews can either be structured, semi structured or unstructured (Gray, 2014). Using structured interviews implies that I have to use set questions including some responses for participants to choose from. In order words, the participant's responses are sort of restricted simply because they are not allowed to talk freely. On the other hand, unstructured interview or sometimes called open ended interview are less formal and more of open discussion where the researcher does not have to set questions before the schedule of the interview. This could be difficult because the researcher would need to record or write the comments from the interviewee. Due to this reason, research question that use structured interview and open ended will not be appropriate for this study because I am particularly interested in gauging the perception of teachers. Therefore, I

will use semi- structured interview by writing sub- questions that will be asked during the interview to answer the main research question without any strict pattern in the questioning. This will allow or give opportunity to the participants to talk freely and ask for clarification where necessary. I will also be able to probe by making a follow up question in order to have detail information from the participants as the interview progresses. For this reason, Punch and Oancea (2014, p.184) pointed that semi –structured interviews are one of the most famous forms of interviews in education research. The interview data will be recorded using audio recorder and participant's cooperation and approval to be requested before the conduct of the interview. This form of recording data is much easier than note taking which is usually impossible to capture all what have been said by the participants. With the recorded data, I, will be able to transcribe the data verbatim and go through it over and over to familiarise myself with the data before the analysis. Of course, recorded data raises ethical issues about data storage and confidentiality and this shall be discussed in later sections related to ethics.

Interview Questions: In the previous section, I justified the use of semi-structured interview using face-to-face interview because only two participants will be considered in this pilot study. My final thesis also intends to use semi-structured interview given its advantage. The nature of semi-structured interviews requires that some questions be written before conducting the interview. This is the basis of discussion in this section. I drew some sub-questions for use in the interview and that the questions are specifically intended to answer the main research question about the perception of teachers in the training they received in Libya. The questions will sometimes allow me to probe more in order to seek detail information from the participants.

Main research question: 1. What are pre- services teachers' perspectives about their training courses in EFL? Sub-questions to answer the main research question. a. Tell me about the training course you have received from the Higher Education Ministry (HEM) as a pre-service teacher in EFL. b. Can you explain how this training has helped you improve your teaching practice and professionalism conduct? c. Does the training course help you to teach EFL effectively in the classrooms? Explain d. What are the benefits of the training course? e. What are the constraints/challenges faced during and after the training? f. How are you able to implement the knowledge and skills gained from this training in the classroom? g. If you are to recommend for any improvement in the training courses provided what would this be? h. Anything else that you will like to say about EFL training offered to you? An introductory remark will be given to the participants at the beginning of the interview and also thank them at the end of the interview for their participation. This is key when it comes to interview (Creswell,2012). The reasons for designing a semi-structure interview according to Matthews and Ross (2010) is to ensure that the topic under discussion is the same across every participant; encourage participants to put across their views and opinions; allow the exploration of issues with participants and give participants the opportunity to respond in their own words. Moreover, the common questions and a degree of flexibility allow the researcher to extract common themes and diversity in the responses as well. This data will then be analysed.

Data analysis: So far, I have discussed and justify the use of primary data and that semi-structured interview is appropriate to address the pilot study and it is also a good guide for the overall methodology I intend to undertake in my final thesis. The aim of this section is to discuss the method of data analysis and analyse and interpret the interview scripts from the pilot study. Choosing the appropriate method of data analysis depends on the research question, the type of data collected and the researcher's philosophical position (Gray, 2014). Qualitative data is normally analysed using content analysis, thematic analysis, phenomenology and grounded theory (Saunders et al., 2012 and Gray, 2014). This study adopts a qualitative approach to consider pre- service teachers' perceptions of their training program and methods of teaching EFL in classrooms. Interviews are generally analysed through thematic analysis (Braun and Clarke (2006). This form of thematic involves six stages in the process of analysis: Familiarising myself with the data. This will involve transcribing the data verbatim and reading it over and over, generating initial coding, searching for themes, reviewing themes, defining and naming themes and writing the report. Thematic analysis involves identifying patterns and themes in an observation or interview in order to establish if the responses are consistent (Creswell, 2012). Deriving consistent responses will suggest that the phenomenon exist and this could be used as a reason to improve our understanding of the situation and add new

knowledge. However, transcribing data is time consuming and could take a long period of time listening and writing from a tape (Creswell,2009). The next coming sections is the provisional analysis.

Summary statistics of the data: The main aim of this pilot study is to gauge Libyan EFL lecturer's perception about the training program they receive in Libya and how this impacts their professionalism and teaching practice. Nine interview questions were designed and two participants were interviewed. The two interviewees are all from Libya and are currently studying in one of the UK University. They also received teacher training program in Libya and are involved in EFL teaching in Libya. Therefore, they offer a good case because their perceptions could be directly associated with their experiences. In the next section, I will analyse their responses in relation to the nine sub-questions in order to determine the extent to which these perceptions could inform policy about the training of EFL teachers in Libya. This is the so what question about adding new knowledge about our understanding of teacher training programs in Libya. The data was transcribed first followed by coding in order to identify themes in the interview scripts. It is this transcribed and coded data that will be analysed with conclusions drawn from the findings.

Analysis of the data: The study adopts Freire 's (1993) pedagogy of the oppressed as theoretical framework. This is used as the lens in analysing the data. The pedagogy of the oppressed by Freire (1993) seems to distinguished the traditional teacher centred from the student-centred approach and this will help to have a better understanding of the pre- service perceptions in terms of their practice after training offered to them by HEM. The teacher centred on filling the students with content usually separated from reality. This form of education is what Freire (1993) regarded to as narrative education. He pointed that this banking concept of education enable students to receive, fill and store what the teacher tells them. As I highlighted earlier, the two participants all received teacher training programme in Libya through the Libyan Higher Education Ministry (HEM). Extracts from the two interviewees demonstrated that; The EFL training course I have received from (HEM)… is call teaching practice, divided into two parts, theoretical and applied. We learn knowledge and practice it in the classroom. The idea of oppression negates knowledge and education as a process of inquiry (Freire ,1993). Further comment from the interviewee highlights that; In the applied part of the training, I feel freer to act as a teacher and tried to be more open with the students and gave them chance to participate and share their knowledge and I tried to hear their voice. This statement is seeming to be more of students centered which involve participation, sharing of knowledge (Schweisfurth, 2013). The above comments show that EFL teachers do receive training programs through the ministry of education. The outcome of these training programs will be quite useful for the effective delivery of EFL lessons as well as teacher's professionalism and practice. The interviewees were asked about the extent to which the training program improves their teaching practice and professionalism. They said in general terms; The teaching practice that I have received from the training gave me chance to look at more continuing self-teaching practice. This comment seems to also contradict Freire (1993) banking of education as it hinders creativity. Another comment collaborates the extent to which the teachers perceive the training program as vital in their practice and professionalism. They said; This course enables me and gave me an aspiration to teach, develop my skills and become more effective in EFL class role…. enables to improve the quality of my own professional relationships, increasing my personal effectiveness. Another comment from the interviewees demonstrated the extent to which the training course was valuable to them in general in terms of introducing them to a particular teaching practice that they were not familiar with before. I believe that this should be the essence of a training program. The trainees should feel that they have learn something and that it can be applied. This also seems not corresponding with the banking of education as pre-service teacher here are not objects of the learning process since the training has improve their professional practices. (Freire,1993). This course opened my eye from blinded…. I look at the quality of teaching and learning…. Now I can say that such courses make EFL teaching more modern and effective. This comment seems to also contradict Freire (1993) banking of education since EFL teaching is said to be more and effective. These comments were collaborated further by their claim about how they teach EFL in classrooms. The extracts highlights that; I tried to practice my EFL knowledge in classes … (centered approach or others …) in the classroom but …. There are less class tools and the students were very calm and less participation. This demonstrates the extent to which

limited access to adequate teaching resources impact on the effective delivery of EFL curriculum in Libya. Several papers highlighted the lack of access to adequate resources as impediments to effective teaching especially EFL around the world and Libya in particular (Embarks, 2011; Alkash and Dersi, 2013; and Elabbar, 2014). Access to learning resource is also central in Kolb's model on how people learn (Biggs and Tang, 2011). Therefore, although the teachers appreciated the teacher training program, they also face challenges in terms of how to effectively implement their training into practice in Libya. The interviewees even highlighted the extent to which relocation seem to impact on their teaching practice. They commented that; I came from rural area …. I can't practice freely as I was stranger from the local diplomatic parties. This seems to be an attitude associated with banking of education where the teacher confuses the authority of knowledge with his or her own professional authority, which he sets in opposition to the freedom of the students (Freire,1993). If these comments are representative of the ways teachers could be treated base on their regional origin, then it demonstrates the extent to which there is inclusivity in the Libyan society. Moreover, education policy makers should investigate this further and deduce the extent to which EFL staff must entirely come from their regions or some form of a national civic education that promote inclusiveness. The analysis from the interview scripts demonstrates that most if not all EFL lecturers receive teacher training mainly through the Libyan Higher Education Ministry. Furthermore, the teachers appreciate the value of the training towards their teaching practice and professional development. Moreover, the training does improve the effectiveness of EFL delivery in classrooms. Nonetheless, the interviews also raise some problems associated with EFL teaching and learning in Libya, including limited access to EFL teaching and learning resources. Furthermore, there seem to be regional bias in terms of the appreciation of teaching practice since relocation could pose difficulties about how one teaches in classrooms. From a policy perspective, the government of Libya should invest more to make sure access to EFL teaching and learning resources is adequate. The next section focuses on the evaluation of the data collection.

Evaluation Of the Data Collection Instruments: In the previous sections, I demonstrated how to answer the research question starting with the research design and justifying the data collection instrument. Interviews were conducted and the data was subsequently transcribed and interpreted. The results and findings were discussed in the previous section. The aim of this section is to evaluate in more detail the extent to which interviews are more appropriate compared with the other methods of data collection.

The Advantage of Interviews: Interviews is useful in many ways, including understanding of individuals or a group of people in-depth. It can be used for the purpose of measurement, it is use for marketing purposes, gathering political views and opinions and production of data for academic analysis (Punch and Oancea,2014, p. 182). One of the advantages of interview data is the in-depth and detail information that can be obtained (Koshy, 2005). It is pointed out as the best way of exploring participants' perspectives and stories (Gray, 2014). The study adopted a semi-structured interview. This type of interview is advantageous, as indicated by Gray (2014), in making follow-up questions where necessary in order to obtain in-depth and detailed information, and at the same time also allows participants to ask for clarification of some of the questions where applicable. The interviews were audio recorded and transcribed verbatim. However, the interview has limitations, as mentioned by Koshy (2005), including time consumption in interviewing participants, transcribing and analysing the data. The advantages and disadvantages of interviews could be further understood with a more detail discussion of the various types of interviews.

Focus group interview: A focus group interview is a version of the interview technique and a qualitative method of data collection. The ethical issues for focus groups are synonymous to that of face –to face interview (Matthews and Ross, 2010). Focus group interview is different from face- to –face interview in the sense that with face- to-face interview it is the interviewer and an individual interviewee while with focus group it is a group of 5 to 13 people having similar things in connection to the research topic and the discussion of this topical issues are being facilitated by the researcher (Matthews and Ross (2010, p. 235). This type of interview involves moderating a discussion with a group of participants (Creswell, 2012). I will therefore moderate and facilitate the discussion that will be held with the students. In the broader approach in order to answer to RQ4, I will intend to talk to at least four students from every class in the institution to find out about their views on EFL and the way they are taught

so that this could be contrasted with what the pre-service teachers say. This will strengthen the consistency and validity of the findings. As pointed out by McLafferty (2014), a focus group provides the opportunity for the researcher to unpick the beliefs, opinions and attitudes of participants. It equally gives the chance for an individual to outline their perspective, ideas, feelings and perceptions (George, 2012). Another advantage it has over face- to-face interview is that it can involve more people in the study using less time than taking a face- to- face. Furthermore, participants are likely to exchange their views and experiences and probably more at ease than face -to - face interview. The limitation of a focus group could be that students may be likely to report based on sentiment especially if they are not happy with their teachers. Gray (2009) added that participants may also dominate each other during the interview which may likely divert the attention of others.

Observation: Observation is defined as a "collection of data through the use of human senses or the act of watching social phenomena in the real world and recording events as they happen" (Matthews and Ross, 2010, p.255). Observation as indicated by Gray (2014) is about note-taking, recording of activities and behaviours of people given set of individuals in a study. The two-main distinctive type of observation are simple observation and participant observation. However, in the broad approach of my study in order to answer to RQ2: How do pre-service teachers perceive the effectiveness of the training courses in developing their professional practice/ professionalism? I will opt to use simple observation that is non-participatory, which according to Koshy (2005) is concerned with observing actions and interactions of the group of teachers and students in the class. As I highlighted, although interviews are going to be the main method of data collection, the observation will be used to strengthen the validity of the interviews. Observation is advantageous in obtaining first-hand information as well, since in the broad study I will be physically present in class to see what is taking place or happening in the classrooms. The observations will be video recorded and this will enable me to have a general discussion with pre-service teachers on some of their practices. However, observation has its limitations as some important information may be lost due the interruptions or background noise (Burton and Bartlett, 2005). In addition to this the participant may change their behaviour during the period they are being observed especially where video recording is taking place. This might also distract students' attentions during the lesson and it could bias the interpretation of the results.

Questionnaires: Questionnaires are usually designed to gather a variety of data involving participants' background information in relation to what is being studied; participants' knowledge, opinions, attitudes, values; facts about events or people and description of certain occurring events (Matthews and Ross, 2010, p. 207). Questionnaires are completely different from interviews since questionnaires can be administered without the presence of the researcher. If you are to conduct an interview as a researcher you need to be physically present especially if it has to be a face-to face or focus group interview. Questionnaires needs no audio recording or note taking as in the case of interviews to be able to remember what has been said by participants and write verbatim. The respondents are giving the opportunity to write their responses or choose answers from the options given in highly structured questions. In order words, the researcher determines the questions and range of answers (Creswell, 2012). Here it may be difficult to have an in-depth and detail information from the participants as in the case on interviews which allows participants to express themselves freely. This means that questionnaires limit the chances of respondents answering questions in their own way (Matthews and Ross, 2010). Questionnaires are used in research strategies such as survey with the aim of gathering a large amount of data which may be generalisable to the population. The data collected through questionnaires are much easier to code and analyse (Gray ,2014) compared with interview data which as earlier mentioned is time consuming due to the volume of the data gathered within a short period of time (Creswell,2009). Questionnaires are most effective with large samples and sometimes experience low response rate which may result to biased sample while with interview the sample size is usually small with higher interaction because you are closer to those being studied. Probably, one of reason of the low responses using the questionnaires is that the researcher is at a distant and does not get closer to the respondents in order to avoid biasness.

Ethical issues undertaken: Research ethics refers to the moral's principles guiding research (BERA,2011). It is equally defined by Homan (1991, p.1) cited in Gray, 2014, p. 68) as the "science of morality". Ethics is defined by

Neuman (2011) as what is or is not legitimate to do during the conduct of a particular study. Similarly, ethics is defined as "the branch of philosophy which addresses questions about morality" (Wiles, 2013, p.4). She further argued that morals and ethics are synonymous and sometimes used interchangeably. During the conduct of the data collection, I acted responsibly and was aware of ethical issues that I need to undertake. Ethical issues are concerns that emerge as you conduct research (BERA, 2011). Ethical issues involving research participants may involve some kind of harm such as embarrassment and lack of privacy (Neuman, 2011). Therefore, during the conduct of my data collection, I tried avoid causing unnecessary or irreversible harm to participants. I secured their prior voluntary consent and avoided any form of humiliation, degradation or exposure of harmful data about a specific individual. I did not use force on any of my participants in order to participate during the study. In order to avoid any form of deception, participants were fully informed of the purpose and aims of the research. This was done by giving participants an information sheet. Please find the participants information sheet under the appendices. Every research participant was requested to participate voluntarily. Equally, participants were given the right to withdraw at any time of the study. An informed consent form was given to each of the participants to read and sign before the commencement of the research. Please find attached a copy of this form under Appendices. Most importantly, participants were assured of their privacy, anonymity and confidentiality as clearly highlighted by BERA (2011) and Wiles (2013) – a process that could be done by the use of pseudonyms. This was undertaking in order to protect participants' privacy by not disclosing their identity after the data have been gathered. I ensured this by making sure that the names of my participants remain unknown or anonymous by giving them an identifier number such as participants A and Participant B. The information gathered from the participants was kept in my personal computer and that cannot be accessible to anybody unless with the use of my finger print in order to reassure the participants of their confidentiality. Permission was sought from the institution in which the research was conducted and informed them of the purpose of my study by giving them an informed consent form. Please find a copy of this form under the appendices. The confidentiality of participants was observed as per BERA (2011) ethics guidelines. The participants were provided with informed consent form to sign in order to be assured that their participation was completely voluntary. Equally, participants were reassured that they can withdraw from the study at any time. Interviews raise ethical issues because it involves direct interaction with participants. This includes the extent to which direct interaction with participants could bias responses because the interviewee has affection with the interviewer. In summary, I abided by the ethical guidelines stipulated by BERA (2011) at all times during the conduct of my study. This will involve avoiding harm to participants, ensuring informed consent of participants, respecting the privacy of my participants and avoiding the use of deception. Most importantly, Interviews were held in a secure and comfortable environment.

The pilot Study: Aims: The aim of the pilot study is to offer a provisional methodology and analysis into EFL Libyan pre- service teachers' perceptions of the training offered to them by HEM and the link between their training and teaching and learning practice. It investigates how the pre- service teachers are putting into practice the EFL training given to them and the impact this pedagogical training has in the development and improvement of the English language of the students they teach. The findings may provide an insight into the importance of pre- service teachers' perceptions and their experiences towards the training and how effectively this has been put into practice during their English language sessions. Furthermore, the findings could help EFL Libyan teachers to have better understanding of the contemporary issues in the field of EFL especially on how training impact on practice and effective learning so that appropriate pedagogy for improving training of EFL lecturers could be made by HEM. Therefore, although the pilot study is a methodological guide to the final process of the thesis, it is expected that the study and pilot will make an original contribution to the existing literature about the link between HEM training and teaching and learning practice in the Libyan EFL context that has not been explored in previous Libyan papers. The pilot study was discussed to some degree in the previous sections especially in the designing of data collection instrument and their evaluation. What I intend to do in this section is to discuss the extent to which the pilot study link the research questions I intend to address and the overall methodology associated with it. It has to be noted that the pilot study addresses only the first research question below.

Research Questions: 1. What are pre- services teachers' perspectives about their training courses in EFL? 1. How do pre-service teachers perceive the effectiveness of the training courses in developing their professional practice/ professionalism? 2. How could pre- service teachers' professional development be understood in light of Paulo Freire model? 3. What are students' perspectives about the quality of teaching of EFL? By addressing the first research question through the pilot study, it will enable me to address the remaining three questions in terms of continuing with the structure of the data collection instrument and analysis. RQ1could be answered through interview. RQ2 will be answered through interview and lesson observation; RQ3 will use data from interview and lesson observation and RQ4 uses focus group interview.

Methodology: The term methodology is defined as "a theory and analysis of how research should proceed" (Harding, 1987, p. 2 cited in cited in Carter and Little, 2007, p.1317). Schwandt (2001, p.161) cited in Carter and Little (2007, p.1317) defined methodology as "analysis of the assumptions, principles, and procedures in a particular approach to inquiry". Research methodology illustrates the approaches and types of research methods used. The overall research approach I intend to take in this study is qualitative approach within the interpretivist paradigm. The interpretivist paradigm is concerned about processes and cases and not variables (Punch and Oancea, 2014). It is more concern about making meaning and is subjective. The interpretivist takes from a small sample from the general population to have more detail and rich information about a social phenomenon (Creswell, 2012). Therefore, it is concerned with an in-depth understanding of the kind of classroom practice that the pre- service teachers are engaged and how their training influences this practice. This process has a particular connection with the pilot study because only two participants were selected and that they received training from the institution of interest. I have to focus on the meaning the pre- service teachers and students put on practice and learning in order to have a better understanding of their world. This means that I do not have to distance myself from them; I need to get closer to them and try to build a good relationship with them in order to have detailed information. As an interpretivist researcher I am not concerned with numbers because I do not intend to generalise my research findings. I am more concerned with the in-depth and detailed information the study may obtain, which could help to shape practice and improve pedagogies. Given the aim of this study to investigate how pre-service teachers of EFL are practicing in their classrooms based on the training they were given, I argue that an interpretive qualitative case study be adopted. This philosophy and approach is associated with primary data collection and qualitative method of analysis. I discussed in the previous section that interviews were appropriate for the pilot study and the final study while thematic analysis was ideal to analyse and interpret the data. It is asserted by the interpretivist the need for different types of methods to be undertaken. Therefore, the final study may seek to include observation in the primary data collection process in order to strengthen the validity of the claims made in the interview.

Research Strategies: A research strategy is described by Saunders et al. (2003) as a general plan taken towards answering particular research questions in a study. Saunders et al. (2003) indicated that these strategies, includes a case study, survey, action research, desk or document research and experiment, grounded theory, cross – sectional and longitudinal studies and exploratory, descriptive and explanatory studies. Each of these strategies requires the use of a particular approach. As I mentioned earlier, the study aims to gauge teachers' perspectives on teaching EFL given their training. Furthermore, the current security situation in Libya also demonstrates that a case study will be appropriate. This is justified because it can gauge the perception of teachers while limit my travel across Libya because a case study could be conducted in few schools. It is pointed out by Koshy (2005) and Gray (2009) that, case study may be used to obtain a rich and detail data by exploring specific group of settings, peoples and societies. Case study can be used to obtain primary source of data through interviews and observation as well although it is not limited to interviews alone. However, case studies have some limitation. For example, it might be prone to problems of observer being discriminatory, personal, subjective, and bias (Koshy, 2005). Moreover, the extent to which a single case study represents the population is an issue. Nonetheless, it can generate an in-depth understanding of a person or persons.

Methods: Methods refer to the tools of data collection, or techniques such as interviews and questionnaires

(Blaxter, Hughes and Tight, 1996, p.59). The method use in the pilot study as previously mentioned is face- to face, semi- structured interview only. This has been previously discussed. For the broader approach as mentioned earlier will use observation and focus group interview in addition to the face- to face interview used in the pilot study.

Sampling: Sampling involves choosing the people you intend to investigate and how you go about deciding that (Henn et al., 2006). There are two methods of sampling: Random or probability sampling involves simple random or stratified where participants are selected from a population without a strict set of criteria and associated with quantitative positivist approach and non-random (non-probability). While non –random or theoretical sampling is purposive and participants are chosen based on their experience (Punch, 2009). Since the pilot study conducted takes an interpretive qualitative approach, it is therefore better to use non-probability sampling and purposive to enable me choose from a small sample size. Purposive sampling would enable the researcher to gather a rich and in-depth volume of information (Creswell, 2012) from the small size that this study involved. Semi-structured interview is used in order to select participants who can talk about the area being researched (Schultze and Avital, 2011). Data collection was done through face- to-face interviews. A total number of two participants were selected from the general student population in one of the UK Universities. The two participants have experience and background knowledge in the area being studied. A 35minutes face-to-face interview was conducted in order to unpick their perceptions of the training obtained. The interviews were tape recorded and participants were informed before the commencement of the interviews. Tape recording saves time and also useful in capturing information during the interviews than note taking (Gray, 2009). In the broader approach a similar approach of selecting my sample will be adopted. I will also use purposeful random sampling to select students for the group interview. I will do this by using the attendance register and calling every nth in the class depending on the class size taking into account the ethical issues as mentioned earlier on. The focus group interview will last for 20minutes.

Validity and Reliability: The term validity refers to the "extent to which an instrument measures what it is claimed to measure", while reliability refers to the "extent to which the data measured is consistent" (Punch, 2009, p.246). According to Burns (2000, p.336) reliability could mean dependability, stability, consistency, predictability and accuracy. Reliable data are obtained when similar participants obtained the same scores using the instrument and under the same condition. The consistency of the data can be obtained according to Koshy (2005) by giving a detailed explanation of procedures and proper documentation which is done in this study. Another way of enhancing reliability of the data according to Gray (2014) is familiarising oneself with data through listening to recorded interviews and reading of interview transcripts. This was done; hence all my interviews were tape recorded and transcribed verbatim. The research questions asked during the interviews were in line with the research aims and objectives and this, according to Gregory and Mueller (2010), increases the validity and reliability of my data.

Limitation Of the Pilot Study: Due to the small sample size of participants in this pilot study it will not be suitable for the finding to be generalised. The sample is not taken from the institution where the main study is intended to be conducted. However, the overall research approach could be replicated for bigger research in a similar field.

Conclusion: The aim of this study was to provide a provisional methodology about the research I intend to conduct for my final thesis. Specifically, the paper designed a data collection instrument and evaluated it against other instruments and then discussed the ethical issues it raised and piloted the process. The only way this could have been done successfully was to choose a research question and address it using the appropriate methodology. The research question seeks to investigate Libyan EFL pre- service teachers' perceptions of the teacher training they received through the HEM in Libya and the extent to which this impact on their teaching practice. I demonstrated that this question could be answered through a qualitative approach. I selected interview as the appropriate method of collecting data relative to the other methods while thematic analysis is used to analyse and interpret the data. This was justified because interviews seek to gauge the opinions, perceptions and experiences of participants (Schultze and Avital, 2011 and Punch, 2009 and Creswell, 2012). Two people were selected from one University in UK with a background information and knowledge of HEM teacher training programme in Libya. The findings show that EFL lecturers who enrolled into the HEM program appreciated the benefits of the program to

their teaching practice and professionalism. The extracts from the interviews demonstrated that although these benefits are appreciated, there were also challenges faced by teachers. This includes access to EFL learning resources. In terms of the extent to which the exercise in this paper could be beneficial to my own research practice in the future, I was able to evaluate the various method of data collection instrument and analysis. I decided that a case study using semi-structured interview will be appropriate to collect the primary data. This was also done in the pilot study so I have the preliminary guide. Furthermore, the various methods of data analysis were discussed and it was demonstrated that thematic analysis is appropriate because it seeks to understand the perceptions and opinions of people. A preliminary thematic analysis was also done in the pilot study. This is quite valuable because I am able to distinguish between the various strength and weaknesses of data collection instruments and this has informed the selection of semi-structured interview as my method to collect primary data in the final thesis process. Furthermore, in order to strengthen the validity of the study, I intend to use observations as an additional data collection instrument.

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Smart Classroom Attendance using Facial Recognition and Internet of Things

Dr. Sujatha Rajkumar
School of Electronics Engineering, Vellore Institute of Technology, India

Abstract: This project presents an automated system for human face recognition in real-time for colleges and Universities to mark the attendance of their students. So Smart Attendance using Real Time Face Recognition is a real-world solution which comes with day to day activities of handling students. The manual task of marking attendance is too tedious and much time consuming. Using Face recognition on an edge device with limited computing power is still a challenge. To detect real time human face, Haar Cascade is used and SVM algorithm is used to recognize the faces detected with a high accuracy rate. The matched face is then used to mark attendance in a text file, which will be sent to respective faculty via email (using SMTP protocol). This product gives much more solutions with accurate results in user interactive manner rather than existing attendance and leave management systems. Even biometric attendance requires students to form a line and wait for their turn to give attendance which again disrupts the decorum of the class. So, if in some case if the attendance can be taken when the student in entering the class itself, then we can achieve more efficiency in the class. The system is tested for various use cases. We consider a specific area such as classroom attendance for the purpose of testing the accuracy of the system. The metric considered is the percentage of the recognized faces per total number of tested faces of the same person. The system is tested under varying lighting conditions, various facial expressions, presence of partial faces (in densely populated classrooms) and presence or absence of beard and spectacles. An increased accuracy (nearly 100%) is obtained in most of the cases considered.

Introduction: Technology is used everywhere is automate and fasten the existing process. So, we noticed college faculty members struggling to mark attendance and also this period of time gets wasted. So, we thought to implement a simple and elegant solution for automating the attendance process and reduce the time invested for taking attendance. By this every faculty will be able to teach for a couple of minutes more. Our hi-tech world has brought to us so many machineries which made our lives quite easy. Amongst these equipment, one popular technology is biometric attendance system and the face recognition attendance system is one of them. This advanced face recognition attendance biometric system enrolls the unique and permanent facial fine points of employees and records them in the database as stencils. Once the enrollment process is complete, you just need to look at the camera to verify your identity and the face recognition attendance system automatically marks your attendance on your behalf. Face recognition attendance system is an accurate technology for managing attendance as it hardly gives errors. The goal of the project is to build an independent and automated attendance system which provides teachers with a time saving solution for the taking attendance. As experienced daily in the classrooms that attendance can usually take up to ten minutes of the lecture time and often is extended to the time in between classes, which in turn results in students getting late for their other classes. If we can come up with a solution to automate a process, while the class is the going on, then time saving can be established. Even biometric attendance requires students to form a line and wait for their turn to give attendance which again disrupts the decorum of the class. So, if in some case if the attendance can be taken when the student in entering the class itself, then we can achieve more efficiency in the class.

Literature Survey:

S.NO	AUTHOR	YEAR	METHODOLOGY
1	Yousra Ben Jemaa and Sana Khanfir	2009	"Automatic local Gabor features extraction for face recognition" that Face is represented with its own Gabor coefficients expressed at the fiducial points (points of eyes, mouth and nose). The first is composed of geometrical distances automatically extracted between the fiducial points. The second is composed of the responses of Gabor wavelets applied in the fiducial points and the third is composed of the combined information between the previous vectors.
2	Hossein Sahoolizadeh	2008	Proposed a new hybrid method of Gabor wavelet faces using extended NFS classifier in "Face Detection using Gabor Wavelets and Neural Networks". Down sampled Gabor wavelets transform of face images as features for face recognition in subspace approach is superior to pixel value approach.
3	Fatma	2008	"Comparison between Haarand Daubechies Wavelet Transformations on FPGA Technology" that the Daubechies wavelet is more complicated than the Haar wavelet. Daubechies wavelets are continuous;

Hardware and software used Raspberry Pi - Raspberry Pi is a credit card-sized computer powered by the Broadcom BCM2835 System-on- chip (SoC). This SoC includes a 32-bit ARM1176JZFS processor clocked at 700mhz, and Video core IV GPU. It also has 256MB of RAM in a POP package above the SoC. The Raspberry Pi is powered by a 5V micro USB AC charger.

Components on board: •ARM CPU/GPU -- This is a Broadcom BCM2835 System on a Chip (SoC) that's made up of an ARM central processing unit (CPU) and a Videocore 4 graphics processing unit (GPU). The CPU handles all the computations that make a computer work (taking input, doing calculations and producing output), and the GPU

handles graphics output. •GPIO -- These are exposed general-purpose input/output connection points that will allow the real hardware hobbyists the opportunity to tinker. •RCA -- An RCA jack allows connection of analog TVs and other similar output devices. •Audio out -- This is a standard 3.55-millimeter jack for connection of audio output devices such as headphones or speakers. There is no audio in. •LEDs -- Light-emitting diodes, for all of your indicator light needs. •USB -- This is a common connection port for peripheral devices of all types (including your mouse and keyboard). Model A has one, and Model B has two. You can use a USB hub to expand the number of ports or plug your mouse into your keyboard if it has its own USB port. •HDMI -- This connector allows you to hook up a high-definition television or other compatible device using an HDMI cable. •Power -- This is a 5v Micro USB power connector into which you can plug your compatible power supply. •SD cardslot -- This is a full-sized SD card slot. An SD card with an operating system (OS) installed is required for booting the

device. They are available for purchase from the manufacturers, but you can also download an OS and save it to the card yourself if you have a Linux machine and the wherewithal. •Ethernet -- This connector allows for wired network access and is only available on the Model B.

Figure 1(a): - Raspberry Pi 3 **Figure 1(b): - Raspberry Pi Camera**

Raspberry pi Camera: Hardware specifications:

Size	Around 25 × 24 × 9 mm
Still resolution	5 Megapixels
Video modes	1080p30, 720p60 and 640 × 480p60/90
Sensor resolution	2592 × 1944 pixels
Sensor image area	3.76 × 2.74 mm
Pixel size	1.4 µm × 1.4 µm
Sensitivity	680 mV/lux-sec

Table 2: - About pi camera: **Software specifications**

Picture formats	JPEG (accelerated), JPEG + RAW, GIF, BMP, PNG, YUV420, RGB888
Video formats	raw h.264 (accelerated)
Triggers	Keypress, UNIX signal, timeout

Table 3: - Software Specifications

Proposed work: This project presents an automated system for human face recognition in real-time for colleges

and Universities to mark the attendance of their students. So Smart Attendance using Real Time Face Recognition is a real-world solution which comes with day-to-day activities of handling students. The manual task of marking attendance is too tedious and much time consuming. Using Face recognition on an edge device with limited computing power is still a challenge. To detect real time human face, Haar Cascade is used and SVM algorithm is used to recognize the faces detected with a high accuracy rate. The matched face is then used to mark attendance in a text file, which will be sent to respective faculty via email (using SMTP protocol). This product gives much more solutions with accurate results in user interactive manner rather than existing attendance and leave management systems.

DESIGN APPROACH AND DETAILS:

Block diagram –

Используемая литература

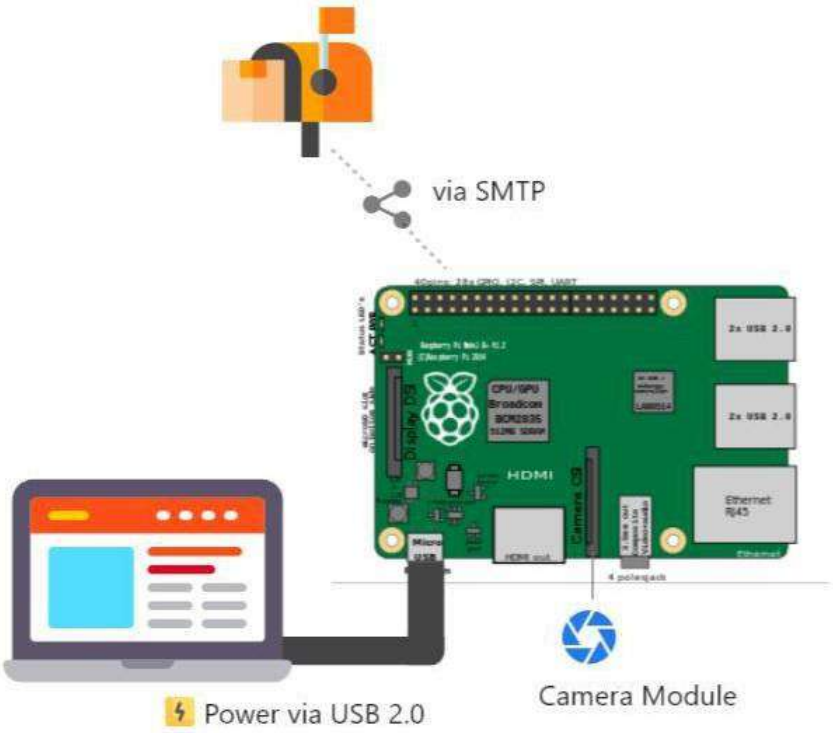


Figure 2: block diagram

Laptop – Raspberry Pi Interface – Via Ethernet cable (Data Transfer) Via USB 2.0 cable (Power Transfer)

Raspberry Pi – Pi Camera Interface – Via Camera port

Protocol Interface – SMTP (Simple Mail Transfer Protocol) – For sending the Attendance list as a text file

NOTE –Raspberry Pi with External Monitor requires no further setup for implementing the project. Raspberry Pi without External Monitor requires IP address scanning (use Advance IP Scanner), SSH communication (Putty SSH client), GUI Interface for using Raspbian OS (VNC Server or Windows Remote Desktop). Prior setup of compatible Virtual Environment of Python for installing all the required libraries.

UML DIAGRAM:

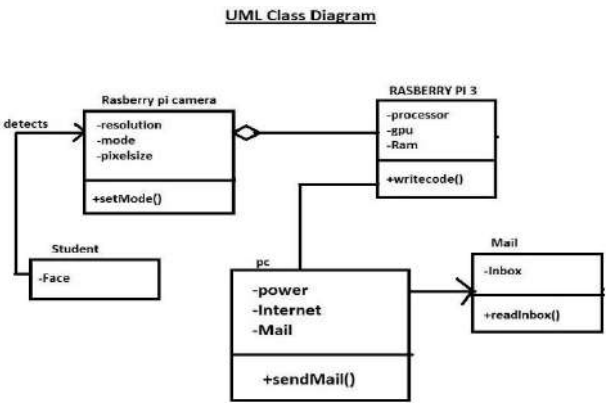


Figure 3: - UML diagram

Implementation: a. Hardware part: Raspberry Pi – Raspberry Pi is a credit card-sized computer powered by the Broadcom BCM2835 System-on- chip (SoC). This SoCincludes a 32-bit ARM1176JZFS processor clocked at 700mhz, and Video core IV GPU. It also has 256MB of RAM in a POP package above the SoC.The Raspberry Pi is powered by a 5V micro-USB AC charger.

Raspberry pi Camera: Size Around 25 ×24 ×9 mm Still resolution 5 Megapixels Video modes 1080p30, 720p60 and 640 ×480p60/90 Sensor resolution 2592 ×1944 pixels Sensor image area 3.76 ×2.74 mm Pixel size 1.4 µm ×1.4 µm Sensitivity 680 mV/lux-sec.

b. Hardware and Software Integration: Python 3.7 And Its Libraries: **Tkinter**: As with most other modern Tkbindings, Tkinteris implemented as a Python wrapper around a completeTclinterpreter embedded in the Python interpreter. Tkintercalls are translated into Tclcommands which are fed to this embedded interpreter, thus making it possible to mix Python and Tclin a single application. OpenCV (Open-Source Computer Vision Library) is released under a BSD license and hence it's free for both academic and commercial use. It has C++, Python and Java interfaces and supports Windows, Linux, Mac OS, iOS and Android. OpenCVwas designed for computational efficiency and with a strong focus on real-time applications. Written in optimized C/C++, the librarycan take advantage of multi-core processing. Enabled with OpenCL, it can take advantage of the hardware acceleration of the underlying heterogeneous compute platform. Adopted all around the world, OpenCVhas more than 47 thousand people of user community and estimated number of downloads exceeding 14 million. Usage ranges from interactive art, to mines inspection, stitching maps on the web or through advanced robotics.

Pandas: Pandas is an open-source, BSD-licensed Python library providing high-performance, easy-to-use data structures and data analysis tools for the Python programming language. Python with Pandas is used in a wide range of fields including academic and commercial domains including finance, economics, Statistics, analytics, etc.

Result: -

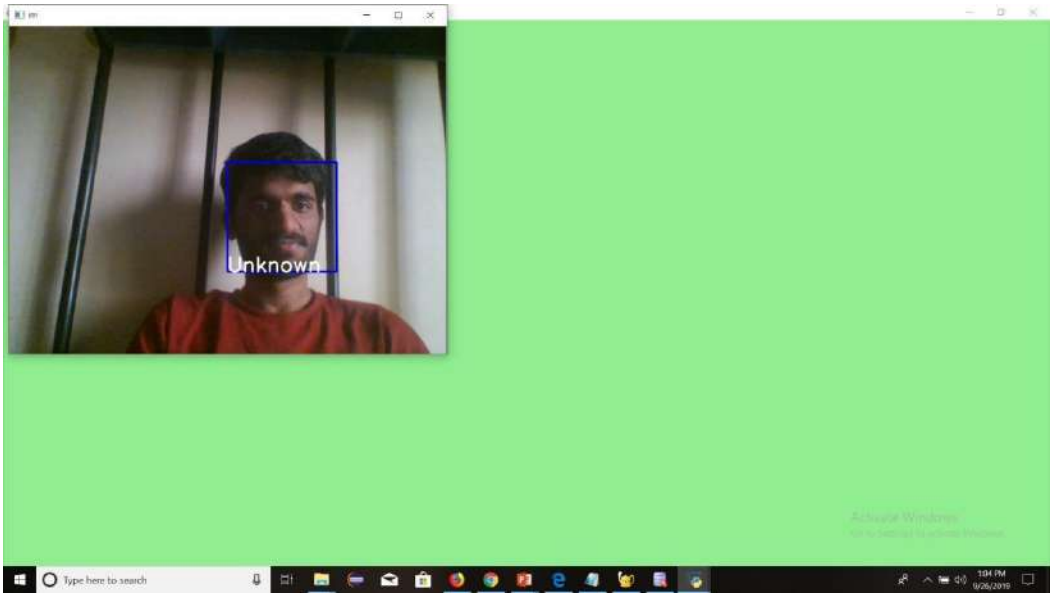


Figure 3(a): Before registering

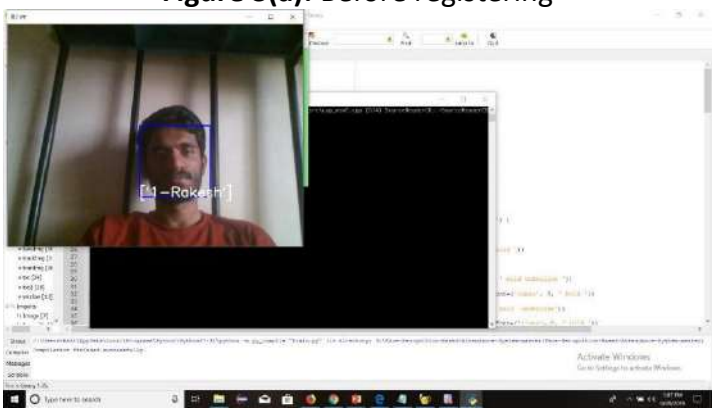


Figure 3(b): After registering

Conclusion: - By this Project the faculty can view exact date and time of attendance given by each student. The faculty can know students who is coming late.The Excel sheet will be posted into faculty mail automatically which provides teachers with a time saving solution for the taking attendance. As experienced daily in the classrooms that attendance can usually take up to ten minutes of the lecture time.

Appendices: I. Appendix – Sending mail: sender_address = 'rakeshreddy6190@gmail.com' sender_pass = 'netgear22' receiver_address = 'rakeshreddy6190@gmail.com' message = MIMEMultipart() message['From'] = sender_address message['To'] = receiver_address message['Subject'] = 'A test mail sent by Python. It has an

attachment.' message.attach(MIMEText(mail_content, 'plain')) fullfilename=filename attach_file = open(fullfilename, 'rb') # Open the file as binary mode payload = MIMEBase('application', 'octate-stream') payload.set_payload((attach_file).read()) encoders.encode_base64(payload) #encode the attachment #add payload header with filename payload.add_header('Content-Decomposition', 'attachment', filename=fullfilename) message.attach(payload) #Create SMTP session for sending the mail session = smtplib.SMTP('smtp.gmail.com', 587) #use gmail with port session.starttls() #enable security session.login(sender_address, sender_pass) #login with mail_id and password text = message.as_string() session.sendmail(sender_address, receiver_address, text) session.quit() print('Mail Sent').

II. APPENDIX 2 – TAKE IMAGES: Id=(txt.get()) name=(txt2.get()) if(is_number(Id) and name.isalpha()): cam = cv2.VideoCapture(0) harcascadePath = "haarcascade_frontalface_default.xml" detector=cv2.CascadeClassifier(harcascadePath) sampleNum=0 while(True): ret, img = cam.read() gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY) faces = detector.detectMultiScale(gray, 1.3, 5) for (x,y,w,h) in faces: cv2.rectangle(img,(x,y),(x+w,y+h),(255,0,0),2) #incrementing sample number sampleNum=sampleNum+1 #saving the captured face in the dataset folder TrainingImage cv2.imwrite("TrainingImage\ "+name +"."+Id +'.'+ str(sampleNum) + ".jpg", gray[y:y+h,x:x+w]) #display the frame cv2.imshow('frame',img) #wait for 100 miliseconds if cv2.waitKey(100) & 0xFF == ord('q'): break # break if the sample number is morethan 100 elif sampleNum>60: break cam.release() cv2.destroyAllWindows() res = "Images Saved for ID : " + Id +" Name : "+ name row = [Id , name] with open('StudentDetails\StudentDetails.csv','a+') as csvFile: writer = csv.writer(csvFile) writer.writerow(row) csvFile.close() message.configure(text= res) else: if(is_number(Id)): res = "Enter Alphabetical Name" message.configure(text= res) if(name.isalpha()): res = "Enter Numeric Id" message.configure(text= res)

III APPENDIX – TRAINING IMAGE: recognizer = cv2.face_LBPHFaceRecognizer.create() harcascadePath = "haarcascade_frontalface_default.xml" detector =cv2.CascadeClassifier(harcascadePath) faces,Id = getImagesAndLabels("TrainingImage") recognizer.train(faces, np.array(Id)) recognizer.save("TrainingImageLabel\Trainner.yml") res = "Image Trained" message.configure(text= res)

IV APPENDIX – RECOGNISING FACE: recognizer = cv2.face.LBPHFaceRecognizer_create()#cv2.createLBPHFaceRecognizer() recognizer.read("TrainingImageLabel\Trainner.yml") harcascadePath = "haarcascade_frontalface_default.xml" faceCascade = cv2.CascadeClassifier(harcascadePath); df=pd.read_csv("StudentDetails\StudentDetails.csv") cam = cv2.VideoCapture(0) font = cv2.FONT_HERSHEY_SIMPLEX col_names = ['Id','Name','Date','Time'] attendance = pd.DataFrame(columns = col_names) while True: ret, im =cam.read() gray=cv2.cvtColor(im,cv2.COLOR_BGR2GRAY) faces=faceCascade.detectMultiScale(gray, 1.2,5) for(x,y,w,h) in faces: cv2.rectangle(im,(x,y),(x+w,y+h),(225,0,0),2) Id, conf = recognizer.predict(gray[y:y+h,x:x+w]) if(conf < 50): ts = time.time() date = datetime.datetime.fromtimestamp(ts).strftime('%Y-%m-%d') timeStamp = datetime.datetime.fromtimestamp(ts).strftime('%H:%M:%S') aa=df.loc[df['Id'] == Id]['Name'].values tt=str(Id)+"-"+aa attendance.loc[len(attendance)] = [Id,aa,date,timeStamp] else: Id='Unknown' tt=str(Id) if(conf > 75): noOfFile=len(os.listdir("ImagesUnknown"))+1 cv2.imwrite("ImagesUnknown\Image"+str(noOfFile) + ".jpg", im[y:y+h,x:x+w]) cv2.putText(im,str(tt),(x,y+h), font, 1,(255,255,255),2) attendance=attendance.drop_duplicates(subset=['Id'],keep='first') cv2.imshow('im',im) if (cv2.waitKey(1)==ord('q')): break

Effect of Psychomotor Domain and Karate Training in Unleashing Potential in Learners through Guidance and Counselling

Shukurat Adeshola Shopeju
Faculty of Education, National Open University of Nigeria, Lagos, Nigeria

Abstract: This research work is basically set to investigate and show case the advantage of karate training and

psychomotor domain development in unleashing potentials in learners through guidance and counselling. Guidance and Counselling session in schools serves as an impetuous in helping parents and learners understand the essence of karate which serves as a fantastic tool in propelling psychomotor domain of learning cum affective and cognitive domain. It is quite obvious that educators and the school curriculum dwell more on affective and cognitive domain of learning, without paying attention to the psychomotor domain of learning. The research adopted a descriptive design of survey type. A study sample of 200 respondents was selected from the population and the use of a questionnaire as the method of data gathering and data collection was employed. Data collected from the questionnaire were analyzed using descriptive statistics, involving percentage. Analysis of the data collected for Section B of the questionnaire was based on four – point Likert rating scale. The findings revealed that learner's academic performance was improved by 20 % through karate training compared with students who were not involved in karate training, while learners need their parents support and instructor with mastering in order to unleash their potentials. The study concluded that learners should be exposure to karate training under the supervision of a counsellor and instructor in order to overcome the fear of sustaining injuries during training which will make them to be well disciplined, focused and confident in order to become a true and self-reliance adult. The study recommends the need to include karate training in school curriculum for learners to enhance and improve learner's academics, psychomotor and cognitive behavior performance and maintain a high quality of education.
Keyword: Karate Training, Psychomotor Domain, Learners, Guidance and Counselling

How to Use Comprehensive Input in the Classroom to Design Language Teaching Classroom Activities

Yun Zhu
Foreign Language Department, St. Catherine's School, Richmond, VA, USA

Abstract: Using Comprehensible Input (CI) strategies to accomplish Second Language Acquisition (SLA) as defined by Krashen (1982) is gaining traction throughout World Language classrooms. By providing input to students that is comprehensible, students can be introduced to new grammar and linguistic concepts that will enhance the acquisition process. Plus, teachers attempting to conduct class at the level of 90% target language use as ACTFL recommend because target language use can enhance language development. Therefore, the author will explain the process of applying the Comprehensible Input theory and of designing graded exercises by giving an example of how to teach the topic "weather". This session will include 1. How and why to maximize the target language in the language classroom. 2. How to use a variety of CI strategies in the classroom to create comprehensible language, comprehensible interactions, and contexts for comprehension in order to be most successful. The author will describe and illustrate some classroom-tested strategies and examples. Moreover, the author will also mention the grammatical roughness, teaching challenges and what are some possible solutions. That is, how to design a serious of exercises that are appropriate for students' language levels. The exercises will cover linguistic (lexical, structural, etc.), discourse, and ultimately, real life perspectives of learning and practicing Chinese. In order to maximize the target language, the author wants to discuss these problems in the classroom: 1. How do teachers know the type and difficulty of the language they should be using in class? Should they speak as if they were talking to a native speaker? What is the rate of the speech, that is, how many words a minute they talk to students is appropriate? Do they just remain the same level of speed as to all levels of students like OPI tester? They need to present material to students that strike a balance between the level of language that is not too far above students' current language skill so that it won't risk frustrating the students; however, how to use the target language that is too simple to prevent the students from growing their vocabulary and grammar. 2. language teachers are receiving mixed messages that range from 100% exclusive use of target language to selective integration of L1 to maximize the benefits of codeswitching. When should L1 be used and how often? 3. In order to have effective CI, teachers need to limit the numbers of the vocabulary, however, will it apply to the higher-level or AP students who

need more vocabulary input? When teaching new words and expressions, will teachers enter and reenter the language elements the same frequency along with the different levels of students? Through the illustration, the participants will get to understand how to design graded exercises to promote students' Chinese language acquisition process by taking account 1. teacher's pedagogical tasks 2. students' developmental state and skill level and 3. social contexts of the second-language learning environment. Participants will develop skills on: 1. How to handle grammatical and linguistic challenges. 2. How to create comprehensible language by teaching new words. 3. How to create comprehensible interactions by setting up certain lexical and structural complexity 4. How to create more contexts for comprehension from scaffolding practices. The author will use PPT to show illustrate: some theoretical basis and then show a detailed process of how-to scaffolding students to achieve their language proficiency and communicative competence. The interactive activities will include use 1 or 2 minutes to learn French by using the Comprehensive Input strategies because the audience will be Chinese teachers and see a video guess the meaning of a new phrase.

Intercultural Education and Classroom Practices

Lina Boukhemis
Faculty of languages, University of Algiers, Algeria

Abstract: This study focuses on intercultural education importance in EFL classrooms. Actually, it highlights intercultural education benefits to EFL learners. The main purpose of this research article is to study intercultural education practices in EFL classrooms. In fact, it aims at studying effective classroom practices to develop EFL learners' intercultural knowledge. For this purpose, two research instruments are used for data collection procedure. Thirty EFL learners and ten EFL teachers are taking part in this study. The findings reveal EFL learners' attitudes towards actual intercultural education practices in EFL classrooms and EFL teachers' suggestions for potential solutions. Moreover, the results open the door for further researches in the field.
Keywords: Intercultural Education, Classroom Practices, EFL Learners, EFL teachers, EFL Learning Settings

The Role of The University in The Regional Entrepreneurial Ecosystem

Houda Harrouch
Faculty of Legal, Economic and Social Sciences, University Hassan II of Casablanca, Morocco

Abstract: In the learning economy, and with the emergence of the regional development agenda, the role of the entrepreneurial university includes a third task - entrepreneurship - and plays an integral role in the growth of the entrepreneurial ecosystem (Cunningham, Guerrero and Urbano, 2017). The dynamics and interrelationships between the local context, entrepreneurial activities and regional development offer significant potential for job creation and economic growth in the regions. Universities play a role in strengthening the operation for innovation and entrepreneurship, thus developing a win-win relationship within its regional entrepreneurial ecosystems (Ierapetritis, 2019). furthermore, by the institutional isomorphism perspective developed by DiMaggio and Powell (1983), the role of higher education institutions has evolved from a supporting role to a key partner, amplified synergies to stimulate knowledge in the spatial context (Leydesdorff, 2012).This study is for regional economic growth; by emphasizing the importance of universities as entrepreneurial institutions and the need to create linkages to increase their impact, including in third mission activities (spin-offs, spin out…). For those reasons, we put down the following research question: how are universities involved in developing regional entrepreneurial ecosystems? Several research questions have emerged from this central question: What role does an entrepreneurial university play in the growth of a region? What role do the entrepreneurial ecosystem and

geographical factors play in developing entrepreneurial universities? What role does the entrepreneurial ecosystem play in regional growth? We plan to use a mixed-methods approach, with a quantitative component in the form of a survey aimed at academics in Moroccan universities in three regions: The Eastern, Souss Massa, and Casablanca-Settat, and a qualitative aspect in the form of interview guides for regional entrepreneurial actors.
Keywords: Learning Region, Entrepreneurial University, Regional Entrepreneurial Ecosystem

Presential Escape Room or Online Escape Room as a Didactical Tool

María del Mar López Guerrero
Analytical Chemistry, University of Malaga, Malaga, Spain

Abstract: Gamification has been incorporated into classrooms as a tool to promote student learning, at different levels and subjects. In this case, we have been incorporating gamification activities in the classroom for several years, being the escape room one of the most successful. So far, it has been observed that students who work in a classroom where gamification is carried out are more motivated. In our case, the students are not told the gamification that is going to take place or the day. Our escape room, it is usually carried out at the end of the course, so that it includes practically all the material of the subject. Students are told that an assessment test will take place. They think about a normal exam and when they find the escape room they are surprised. To make the escape, groups of a maximum of 4 people are built and they must solve a series of tests related to the subject. Once finished, they should fill out a questionnaire. Students indicate that they would like exams like this, fun. With the appearance of COVID-19, our face-to-face escape room was suppressed, but we know that it has a great impact on student motivation, because of that we decide to search a solution. A virtual escape room was created with the genially tool and posted on Moodle. With Zoom, we can create room for a group of students. If we compare the results obtained, they are quite similar, the students are very happy with this type of exams. The only difference is that it is more complex to help students if there is a problem related to the creation of the escape room, since we cannot be in all the rooms at the same time, which is possible in person.
Keywords: Chemistry, Escape Room, Gamification, Virtual, Learning and Teaching

Developing Educational Toy for Enhancing Elementary Students' Computational Thinking Skills by Using Design Thinking Process

Nattapa Pongpanich
Technopreneurship and Innovation Management Program, Graduate School, Chulalongkorn University, Bangkok, Thailand

Abstract: Computational thinking is a skill of the 21st century which becoming extremely important in the world of rapid growth technology. Previous studies found that the younger children learn the skills, the easier they can apply them in future education. Various virtual instructional tools were created to improve children's Computational Thinking skills. However, interacting with physical toys will make younger kids learn more actively. In this research, to fully develop the computational instrument, we created it under the design thinking process. We started to empathize and study the computational thinking framework, educational technology toy concepts and creations, active learning for elementary students, and educational psychology. Then we defined and ideated ideas. Afterward, we designed a virtual prototype and collected feedback. Subsequently, we selected the most suitable hardware and developed the toy. The result indicates that the hybrid toy with both virtual and physical sections is preferable by having a virtual part as a commander and a physical part as a demonstrator. The core structure of the toy consists of 3 parts. First, the controlling hardware was a

programmable microcontroller that can be coded in a block-based style via an electronics device. Second, the motion hardware we selected is called "Mecanum Wheels." Lastly, the outer case was a 3D printing cat model. This study shows the hybrid educational toy development that can enhance elementary students' Computational Thinking skills. In further research, we aim to implement our computational thinking toy in the elementary class and conduct experimental research regarding Computational Thinking skills improvement.
Keywords: Coding, Early Childhood, Educational, Technology, Problem Solving, Programming

How to Use Comics in the English Classroom?

Dolores Malić
English and German, Elementary School Fran Roš, Celje, Slovenia

Abstract: Dolores Malić graduated from the University of Maribor, Faculty of Arts, Slovenia. She has been a teacher of English and German in a primary school since 2007. She prefers working with older children and teenagers. She tries to make her teaching effective and her students as active as possible. Regardless of the way we are teaching nowadays, i.e., online or live, I believe teachers are constantly trying to come up with new methods and tools to make learning more effective and more student-centered. In this article, I will provide ideas on how to use comics in an English class. We all have at least one student in a class who does not want to be there, who does not have the inner motivation to learn English. I try to find a way to include these students in a way they feel well during our classes. I can still remember how awful it is when you have to take a subject you do not like. So, when I was thinking about and looking for ways to find an interesting activity that could raise the motivation in my class, I came across the idea of using comics. According to Linklater, some of the positive sides of using comics are: students get a visual aid to make their understanding of a story easier: They have not only words but the whole meaning of a sentence(s) in the picture, they are motivating, they provide support to readers, and they support the use of scaffolding strategies so that students can organize their thoughts more easily. It feels like everywhere you look; the use of technology is being promoted. However, sometimes the old-school methods work even better! For those students who are good in drawing, having a pencil and a piece of paper is a preferred way – at least at our school. You can ask these students to help you by drawing a comic story. You give them the words and the context and they can make a comic. This can also be combined with Arts class. Our school system encourages CLIL, so you can work together with your Arts colleague. Comics are a great way to start a new school year with your new group. I have created a comic about myself. I included some facts that are not true and the students have to guess which ones are false. This activity serves as an icebreaker – I share some information about myself so students get to know me. The activity engages students and serves as a speaking practice. If you want to teach some vocabulary, comics provide a context for those words. They are usually funny which makes students more eager to read them as an ordinary text. Sentences are short and therefore easy to read and understand. You can cut the comic into pieces and tell your students to find the correct order. It can be a pair work or a task for individuals. You can also give out pieces of comics prepared in a way students have to walk around and find the rest of the puzzle. Students can do

a role play that is based on the comic. It can be done in two ways: you can give them a comic as it is, with sentences, or simply pictures without any text. In the second example, each pair or group comes up with their own story. They play their version in front of the class. You can also give students only a part of the comic story. They can then use their own imagination in order to complete the story. They can work individually, in pairs or in groups. If there is a text in your course book that you or your students find especially important or interesting, students can transform the story into a comic. They can add their own ideas. A grammar-oriented activity is one in which students transform the direct speech from a comic into the indirect one. Students can also write a newspaper report about the story and use different tenses when doing so. They can also find (and write out) a specific word class and use these words in different tasks. An example: Students identify adjectives and say/write the opposites. The simplest and free tool I use with my students is Canva. It is an online tool; teachers get some special features when applying for the educational version. An example from my classroom: I show one comic first as an example of my every day activities. Students then do their own presentation. We sometimes use it for as a preparation stage for a speaking assessment. At this stage, students do not write anything in the speech bubbles; when they have a speaking presentation, only pictures are allowed. Otherwise, especially weaker students write down whole sentences and simply read them aloud. To sum up, comics are an excellent way to diversify a reading lesson. You can use them to practice all four skills. If you use a bit of imagination, you can come up with lots of different activities. Students will surely appreciate various aspects comics provide.

Curriculum Change Assumptions in Primary Education: Focusing on Lowering the Compulsory Education Starting Age

Nijole Ciuciulkiene
Academy of Education, Vytautas Magnus University, Kaunas, Lithuania

Abstract: The problem of the research. Recently a lot of attention has been paid to the lowering of starting age for compulsory education in Lithuania. What age should a child start compulsory education? This question raises debates in the context of both scientific and public interest. This topic is of big importance around the world. Unfortunately, there is still a lack of research, no clear evidence of the impact of early education. There is also a lack of research on curriculum change in the context of this reform. Another question “What kind of curriculum should be applied for the lowered education starting age” is also very relevant. Thus, here emerges the research problem: the disclosure of assumptions for the curriculum changes in the early stage of primary education. Main questions of the research: what are the reasons for lowering the age of children in formal education and how does this relate to the primary curriculum transformation? How much should the primary school curriculum be changed if the education starting age is lowered? The objective of the research: assumptions for the curriculum change. Aim of the research: to evaluate the assumptions for the curriculum change of primary education focusing on lowering the compulsory education starting age. Participants of the research: First stage – 12 educational experts, second stage – 6 preschool and primary education teachers. Participants were selected using the targeted criteria

selection method. Research strategy: Qualitative research methodology was chosen for this research, based on the theory of humanism and social constructionism. Methods of data collection: semi-structured experts' interviews and (focus) group discussion methods. Methods of data analysis: a qualitative inductive thematic analysis. Results of the study. Four main topics were distinguished during the study: the relevance of pupils' age; curriculum change when lowering primary school starting age; the peculiarities of age change; the processes of change taking place in the education system. Conclusions: Important arguments were presented to conclude that there is no unanimity, advocating for and against the lowering of the compulsory starting age in education. To lower the compulsory school starting age, it is necessary to review and change the curriculum, select and adjust educational methods, and tools, create new educational environments, adjust the assessment system, and train teachers accordingly, to work with a pupil of younger ages.
Keywords: Primary Education, Lowering the Compulsory Education Starting Age, Curriculum Change (Max. 5, Separated by Commas) (Times New Roman, 10 Pt., Centered, Italic)

Development of Social and Emotional Abilities Using Integrated Literacy Methods in a Preschool Group

Ilona Tandzegolskiene
Academy of Education, Vytautas Magnus University, Kaunas, Lithuania

Abstract: The research examines the social and emotional abilities of preschool children and their educational skills. Based on the scientific literature, methods of integrated literacy aimed at strengthening social emotional abilities are discussed. Through constant interactions with the social world, a child develops required skills that become necessary in all areas of his/her life. According to Lekaviciene, Antiniene (2013), cognition, understanding of personal emotions, other people's emotions, their management, and control, empathy, etc. promotes effective interpersonal communication. It, on its turn, has a positive effect not only on making individual decisions, but also on a person's psychological functioning. Having mastered literacy skills, a child can express what he/she feels, hears, and sees. It is easier for a child to understand his/her own and other people's feelings, to look for solutions, to express ideas smoothly. The problem of the research - the development of children's literacy and social emotional abilities is one of the priority areas of education. The application of integrated literacy methods gives educators more opportunities to strengthen children's social and emotional abilities, which leads to higher self-esteem, more effective realization of their potential, better interpersonal relationships. Research questions - what kind of actions can be applied to integrate literacy methods into the development of social emotional skills? The object - the development of social emotional skills. The aim of the research - to reveal the assumptions for the formation of social emotional abilities by applying integrated literacy methods in a preschool group. Participants of the research: First stage – 14 children from preschool classes, second stage – 6 preschool teachers. Research strategy: Qualitative research methodology was chosen for this research, based on the theory of social constructivism and pragmatism. Methods of data collection: children activity's observation and teachers (focus)

group discussion methods. Methods of data analysis: qualitative deductive thematic analysis. The main conclusions of the research. The application of integrated literacy methods in the implementation of a preschool program is a suitable context for strengthening social emotional skills, which are crucial for recognizing and managing one's emotions, being empathetic, creating and maintaining positive relationships, setting and pursuing positive goals, and making responsible decisions. Literacy techniques such as printed environment, reading books, marking emotions, interactive writing and drawing, social stories, acting situations, and discussions are effective tools and ways to achieve these goals.
Keywords: Social Emotional Abilities, Integrated Literacy, Preschool Group, Social Emotional Story

Lived Experiences of Teachers in Contextualized Mathematics Teaching during the New Normal Education

Kerstien Trayco
College of Education, Graduate School, Carlos Hilado Memorial State University, Talisay City, Philippines

Abstract: This study aimed to determine the lived experiences of teachers in teaching contextualized Mathematics to indigenous learners during the new normal education. Data were gathered through an individual virtual semi-structured interview with two participants who were selected using purposive sampling. The participants were all secondary school teachers who have taught mathematics-related subjects. This qualitative study also utilized a narrative inquiry approach and utilized interview protocol and questionnaires which were validated by three experts. Collected data were then transcribed, analyzed, and explicated using Braun and Clarke (2017) Thematic Analysis. The study's main findings revealed that different aspects affect teachers in contextualized mathematics teaching to indigenous learners. As for experiences, the major themes derived were: a) challenges encountered by the teachers in teaching contextualized Mathematics, (b) coping strategies from external threats of teachers in delivering contextualized mathematics teaching and (c) teacher support programs as suggested by the teachers. Thus, for them, experiences bring unexpected difficulty in implementing contextualized mathematics teaching to indigenous learners. As to the teacher support program, the participants expressed their need for seminars and workshops as well as an immediate need for a numeracy drive among learners which would be addressed through Program ACORN: Adapting Contextualization for Optimal Readiness to Numeracy.

Teaching Sensitive Topics in School History: A South African Case Study

Mogamat Davids
Educational Foundations, University of South Africa, Pretoria, South Africa

Abstract: In 2015, the South African Minister of Basic Education established the History Ministerial Task Team (HMTT) to investigate the state of History teaching at schools in post-apartheid South Africa. The report of the HMTT led to the decision to make History a compulsory subject from grade 10 until grade 12. This initiative grew out of concern a lack of social cohesion and oft reported instances of racism. The report noted a lack of historical knowledge on South Africa's colonial and apartheid past. The HMTT suggests that the teaching of controversial and sensitive historical aspects of colonial and apartheid have largely been suppressed and avoided, which resulted, on the one hand, in ignorance of the reprehensive apartheid story, and on the other hand, a continuation of apartheid practices of racism and its variants. Theoretically, this presentation is informed by Maldonado-Torres (2007) notion of coloniality to explain institutionalized colonialism through maintaining longstanding patterns of culture, social relations and knowledge production. Drawing on extant literature on the topic, this presentation makes a case for classroom-based research and observations to better comprehend the teaching of controversial historical topics, with the intention to confront the barriers for developing a democratic, non-racial and non-sexist post-apartheid society. The paper intends contributing towards the teaching of sensitive and controversial history topics at school and teacher education institutions.
Keywords: Apartheid Education, Decolonization, History Teaching, Pedagogy, Teacher Education

English Teaching, Experiential Education and Steam

Mei-Hua Hsu
Department of Applied Foreign Languages, Chia Nan University of Pharmacy and Science, Tainan, Taiwan

Abstract: The purpose of this study was to investigate how English teaching can be improved when integrated with Experiential Education and STEAM. Four college students who aimed to be English teachers participated in the study. Each of them took responsibility for one subject (Science, Technology, Engineering, and Mathematics). Before the study, they had completed a lesson plan based on the content of a young learners' English textbook (TEAMMS). In this study, they were asked to design a new lesson plan based on the content of the textbook and incorporating the subject they were responsible for teaching. After that, they implemented their teaching plan with classes of 8-10 students in a private language school. Data, consisting of the lesson plans and teaching videos, were collected and analyzed for evidence of improvements in the college students' teaching. The results of the study were as follows:1. In the 'Technology' instruction, besides the required vocabulary, the college student taught new words related to their students' computer usage (Microsoft PowerPoint).2. In the 'Engineering' instruction, the college student's teaching was totally different from the textbook because of the hands-on experience that young students had in class.3. In the 'Mathematics' instruction, the college student added some new sentences that are rarely seen in Taiwanese children's regular English education.
Keywords: English teaching, Experiential Education, STEAM

Design and Development of a New Framework of E-Learning System with Virtual Classroom

Md. Riad Hossain
Department of BBA, Asian University of Bangladesh, Dhaka, Bangladesh

Abstract: This paper has presented a framework/model of distance learning with an integrated platform. A justification has been done to prove that it will reduce cost and offer flexibility than the traditional system. In this work a geographical area is divided into some zone. Each zone contains a virtual classroom in an integrated platform. In that way learners can easily acquire knowledge from any part. It will not only ensure flexibility but also reduce cost.
Keywords: E-Learning System, Online Course, Distance Education, Low-Income Countries

Active Children for Reducing our Environmental Footprint and Teaching Civic Responsibility

Hen Friman
Faculty of Engineering, Renewable Energy & Smart Grid Excellence Center, Holon Institute of Technology, Holon, Israel

Abstract: An ecological footprint is an area that continuously creates resources or disperses waste. Ecological footprints reflect the ecological assessment of an area.In its purest form, sustainable development measures the ecological impacts of human beings and the ability of the earth's life system to absorb these impacts. Environmental sustainability is determined by the capacity of a system to absorb waste. Minerals, water, forests, and land are examples of natural resources consumed by economic activity. Recent research on the relationship between energy consumption and the environment has been booming. US renewable energy consumption, economic growth, biomass capacity, and trade policies were examined for their impact on the environment in the US.Our goal is to offer early childhood education as a solution to reduce the ecological footprint in Israel. Previous studies have demonstrated the effectiveness of environmental education. Preventing children from picking delicate plants. Education has had a profound impact on the community, and its effects can still be felt today. HIT

Holon Institute of Technology offers an academic course called Green Ambassadors in the Community. As part of the course, Holon Institute of Technology students from the various faculties meet with pupils from elementary schools and teach them using workshops and experiential teaching methods how to be "Green Ambassadors" in their communities and environments. There was excellent collaboration between the students and the HIT staff, as well as the pupils and school staff. It is important to remember that change begins in children, and great efforts must be made to promote green education as a means to reduce the environmental footprint.
Keywords: Environmental Education, Elementary School, Renewable Energy, Ecological Footprint

Empowering the Student Voice: A Model for Initiating a Paradigm Shift

Luke Power
Department of Quality Promotion, South East Technological University, Waterford, Ireland

Abstract: The perceived barriers to the student-staff relationship are a key challenge for HE (higher education) to overcome in its push to deliver increased student involvement in the decision-making process of HE institutions. Research and practice have continued to examine the benefits of student and staff working together as equal and active collaborators in their teaching and learning with findings highlighting the benefits of student engagement in the delivery of a quality higher education experience. Such alignment can be perceived as radical, with the traditional relationship between the student and staff being one of hierarchy with students having limited input into broader aspects of HE. Re-envisioning this relationship between student and staff in institutions has the potential to challenge deeply entrenched believes, identifies and established 'normal' practice which forms a part of the instructional culture of Ireland and beyond. Although these challenges are frequently examined, an infrequently discussed aspect of the challenge is the perceived barriers to interaction from the student perspective. This is despite the stated national push towards a democratization of higher education through the National Forums 'Seven Cs of success toolkit' and NStEP 'Four domains of student engagement'. While the reasoning for these perceived barriers may be vast, the lack of a clear systematic approach which describes and implements a culture of participation, empathy and respectful dialogue to solve problems is seen as a desirable method of reducing barriers. This paper will therefore exam the mechanisms for overcoming the students perceived barriers to student-staff working partnerships in a HE is setting, including restorative practice, civic reflection, Everyday Democracy's 'dialogue to change', the construction of feedback loops, and the varieties of moderator focus and steering groups. In doing so, the analysis will compare and theoretically evaluate these methods – recommending a template to be investigated which can be used by Irish HE institutions for the facilitation of formal student-staff discussions.
Keywords: Student Engagement, Student Partnership Agreements, Student-Staff Partnerships, Higher Education, Democratizing Students, Empowering Students, Student Unions, Student Voice, Removing Barriers

Improving Basic Skills for society through Technical and Vocational Education Training for Improved Productivity, decent Employment, and Improved Security

Ahmed Durow Ahmed
Social Affairs, Deputy Minister of Labour and Social Affairs, Baidoa, Somalia

Abstract: Improving Basic skills for society through Technical and Vocational Education Training. For Improved Productivity, decent Employment, and Improved Security. By: Ahmed Durow Ahmed. Deputy Minister of Labour and Social Affairs. 1. Abstract. 2.TVET in Somalia Context, and Ministry of Labor and Social Affairs. 3. Aim of the paper and topic/Purpose 4. TVET For Sustainable Human Security and National Development 5. How an Employment can led youth to extremism. 6. Ministry of Labor and Social Affairs Solution to extremism Trough TVET. Abstract. The world will never be secure from war and extremism if men and women have no security in their homes and in their jobs. Both the rich and the poor are faced with a number of security challenges ranging from physical, social, economic, health, environmental, individual, community, political among other sources of human insecurity. Sustainable human development programs must be designed to be pro-people, pro-jobs and pro-nature. Therefore, TVET experts and practitioner suet deliberately engage with corporate entities, international organizations and government for coal apprehensive assessment of sources of threats to human security in various sectors to provide guide for designing and reforming TVET programmers capable of promoting sustainable national development. TVET in Somalia Context, and Ministry of Labor and Social Affairs. Prior to the collapse of the state in 1991, the technical and vocational education and training (TVET) system in Somalia was well developed. The subsequent civil war has weakened political and social structures, including the education system. An entire generation has low levels of education, and youth unemployment stands at 67 percent. The TVET system is highly fragmented, the conditions required for a labour market-oriented TVET system are not in place, and there is a lack of qualified teaching staff. Existing TVET curricula are often outdated and not demand-driven, and the business sector is not adequately involved. The private sector is dominated by micro, small and medium-sized enterprises (MSMEs) displaying little to no interest in TVET. As a result, the labour market demand for skilled workers cannot be met. MOSLA is responsible Ministry that plans how to raise (and maintain) households out of poverty and improve their resilience: this approach is referred to as 'Transformational'. Transformation requires actions beyond prevention and protection, including support that helps investment in individuals, households, and Somali society at large in order to build Human Capital. MOLSA is mandated to serve for specific target groups of the society, especially women, children, people with disabilities and other socially disadvantaged groups including, IDPs, returnees and minorities to ensure their rights of accessing basic services, fair employment opportunities through TVET center funded by EU commission, and protection support are ensured.

Investigation of Variables Predicting Forgiveness in Romantic Relationships of University Students

Aykut Kul
Faculty of Education, Gaziantep University, Gaziantep, Turkey

Abstract: As a result of conflicts in romantic relationships, the individual's behavior of forgiveness may be related to many variables. The individual can exhibit behavior of forgiveness by evaluating himself/herself, the person with whom s/he has a romantic relationship and his/her relationship. It is thought that the thoughts and relationship satisfaction of the individual are important in the process of forgiveness. It is expected to show less forgiveness when the individual's general irrational beliefs and irrational beliefs about the romantic relationship are high and relationship satisfaction is low. The purpose of this study is to examine the relationship between general irrational beliefs, irrational beliefs about romantic relationships, relationship satisfaction and forgiveness of university students who have romantic relationships. Relational screening model was used in this research. Study group of the research; it is a total of 185 university students, aged between 17 and 32 (X= 21.22; Sd= 1.98) of which 155 are women (84,9%) and 30 are men (15,1%). Data collection tools were Irrational Romantic Relationship Beliefs Inventory, Irrational Beliefs Test, Heartland Forgiveness Scale and Relationship Satisfaction Inventory. After that the normality and linearity analyze showed that parametric tests can be applied on the data. In the correlation analysis performed to determine the relationships between variables on the data, it was seen that forgiveness showed a statistically significant positive correlation with relationship satisfaction (r= .38; p< .001), while the irrational beliefs about romantic relationship (r= -.33; p< .001) and general irrational beliefs (r= -.46; p< .05) were found to show a significant negative correlation. According to the results of the regression analysis performed to determine the predictive effect of independent variables on forgiveness of the university students, the irrational beliefs about romantic relationships general irrational beliefs, and relationship satisfaction together predicted 31% of forgiveness significantly (F (3,181) = 27,297, p < .001). The relative importance order of predictive variables describing forgiveness is general irrational beliefs (β = -.36; p< .001), relationship satisfaction (β = .26; p< .001) and the irrational beliefs about romantic relationship (β = -.15; p< .05).According to the findings of this research, there is a significant relationship between the levels of forgiveness of university students with romantic relationships and their general irrational beliefs, irrational beliefs about romantic relationships, and relationship satisfaction levels. In addition, general irrational beliefs, irrational beliefs in romantic relationships and relationship satisfaction were found to significantly predict forgiveness. Accordingly, it is possible to say that the behavior of forgiveness decreases when individuals' irrational beliefs about both general and romantic relationships increase and their satisfaction with their relationships decreases. Therefore, it is considered important to emphasize the role of cognitions in studies on forgiveness.

Biography: The researcher continues to work as a research assistant at Gaziantep University, Faculty of Education, Department of Guidance and Psychological Counseling. He is also continuing his PhD education at the same university.

Opinions of Classroom Teachers Working in Primary Schools without School Counselors on the Conduct of Counseling Services

Barış Kalender
Faculty of Education, Gaziantep University, Gaziantep, Turkey

Abstract: The purpose of this research is to try to reveal how classroom teachers working in primary schools without school counselors (SC) conduct counseling services, what kind of difficulties they encounter and in which situations they need the support of SC. In this direction, semi-structured interviews were conducted with eight classroom teachers working in three public schools without SC. The interviews were analyzed by content analysis. As a result of the analyzes made, it was concluded that classroom teachers are significantly aware of their duties and responsibilities, but they have difficulties in fulfilling these duties and responsibilities. In addition, they found the undergraduate education insufficient in terms of the lack of practice in fulfilling their duties and responsibilities. Therefore, it is another result that they have difficulty in fulfilling some of their duties and responsibilities - especially in identifying student behavior disorders and developing an action plan- and they need the support of the SC. Some suggestions have been developed in line with the opinions and suggestions of the teachers who participated in the research for primary school teachers to provide an effective counseling service. One of the most important results of the research is that non-practical trainings in pre-service and in-service training create the basis of the failures of classroom teachers in conducting counseling services. Depending on this result, the transformation of these educational services into a practical structure emerged as one of the most important suggestions.

Biography: The researcher continues to work as a research assistant at Gaziantep University, Faculty of Education, Department of Primary School Education. He is also continuing his PhPh.D.ducation at the Çukurova University.

Science Ready: An Online Preparatory Short Course for Successful University Transition and Academic Performance in The Health Sciences

Jacqueline O Flaherty
Clinical and Health Sciences, University of South Australia, Adelaide, Australia

Abstract: Given that unsuccessful transition can incur significant cost to the student and to the institution in which

they are studying, an online short course Science Ready was designed to assist in narrowing the gap between high school and university studies to ease the transition for first year health science students. Most Australian Universities offer similar bridging workshops or short courses in a number of the STEM disciplines that introduce the fundamentals of a complex subject. However, Science Ready is unique in that's its design and instructor intentions are informed by pedagogical research that has identified three key indicators that can be used as predicators of both poor transition and subsequent low academic performance and/or a student being at risk of attrition and aims to address these in the short course. These indicators include the student's entry level of biological science knowledge and academic literacy, as well as their level of engagement with specific parameters in the online learning environment within the first two weeks of starting their university course. Of those students that have participated in two Science Ready workshops (2020-2021), 91% have successfully completed their first-year program studies. Participants enrolled in the nursing and midwifery program in the 2020 workshop, achieved a 95% pass rate for their compulsory first year nursing and midwifery course (an introduction to Anatomy and Physiology). Additionally, all students participating in the short course's academic writing skills module successfully passed all written assessments in three of their other major first year compulsory courses. This paper will discuss the short course design, learning effectiveness, access, student & faculty satisfaction, equipment necessary to implement the short course, and scale (cost effectiveness and commitment).

Women Matter in Disaster Education in India

Babita Babita
Department of Social Sciences and Humanities, Ramesh Chand Institute of Management, Ghaziabad, India

Abstract: Women and men are affected differently by these disasters due to the economic, social, and cultural roles that they play in society. Disasters have had an impact on the lives of women all around the world. Generally, women are looked at in disasters only as victims despite the fact that the majority of victims in disasters are women and children. The central role of women in facing the aftermath of disasters is totally neglected. India is one of the most vulnerable countries to natural disasters. The country has faced a number of natural disasters in the last decade which have claimed hundreds of thousands of precious lives and heavy economic losses. It has been observed that more than half of the victims in the past disasters were women, which shows the lack of disaster education among women. The study concludes that the women in disaster education status varies with the educational background, origin and age and the level can be strengthened through a combination of a-based disaster education, information technology and collaborative relationships between government, Non-Government Organizations and community-based organizations. 78% of subjects knew about earthquake but only 69% had knowledge about what they have to do in order to save their life in case there is an earthquake and fire. Disasters are natural forces difficult to tackle but women to face the calamity will help to solve the magnitude of the problems. The women at large must be well aware of the occurrence of disaster. Education for disaster can be the only effective means in teach at all levels. It should be treated on priority basis. Long-term planning and disaster education, leadership among women for disaster mitigation is gradually being made part of the process of development planning in India. As in India, mostly women particularly in rural areas, they spend maximum time in their houses with high vulnerability. Therefore, women in disaster education through intensive training can play an important role to save many lives.
Keywords: Disaster Preparedness, Knowledge, Mitigation, Risk Reduction, Awareness, Education

Using Bloom's Taxonomy for an In-Depth Comparison of an Online and F2F Chemistry Course

Ozcan Gulacar
Department of Chemistry, University of California, USA

Abstract: While online and face-to-face (F2F) courses have been compared in numerous studies, there has been a lack of focus on online chemistry courses. This study was conducted to compare the success of students instructed in an online or F2F general chemistry course for non-majors. One hundred forty-six exam questions were categorized according to Bloom's revised taxonomy and student success on each problem was analyzed. Comparison of online and F2F courses showed significant differences at the lowest order of thinking, "remember," with online students performing better than F2F students. A similar result was seen with the next order of thinking, "understand," but there were no significant differences observed between online and F2F students for exam questions at the "analyze" level. The observed advantage for online students may be because online instruction promotes better memorization of facts or because students good at memorization gravitate towards online courses. No significant differences were seen between online and F2F courses when comparing the various chemistry topics covered in the exams. Online instruction appears to be as effective as F2F instruction when teaching introductory chemistry topics.
Keywords: Bloom's Taxonomy, Chemistry Education, Online Courses, Face-to-Face Courses

Calar (Calculus with Augmented Reality) as an Android-Based Application to Improve Spatial Ability in the 21st Century Calculus Learning

Zalfa Nurafirst Ardita Sari
Mathematics Education, State University of Jakarta, Indonesia

Abstract: Mathematics is a field of science that has an important role in education for sustainable development. Calculus is a very important branch of mathematics and is widely applied to other branches of science. However, a survey of mathematical abilities conducted by the Program for International Student Assessment (PISA) in 80 countries in 2018, stated that the mathematics score of Indonesian students was only 379 points with an average score of 489 points. This shows the low mathematical ability of Indonesian students which causes problems related to the Sustainable Development Goals (SDGs), namely the quality of education (goal 4). The use of AR in learning, especially mathematics, can help students visualize lesson concepts. This paper proposes CalAR as an Android-based AR application as technological innovation to improve students' spatial abilities in learning mathematics, especially calculus. The method used in this research is RnD (Research and Development). The results of the needs analysis stated that 62.5% of students had difficulty understanding mathematics when learning online. 62.5% of students chose calculus as a difficult subject. 45% have difficulty understanding graphic concepts. In addition, in learning media that attracts 50% of students, they answer AR-based applications. The results of the evaluation of media experts obtained a percentage of 89.7% with a very decent category. While the results of the evaluation of the two material experts obtained a percentage of 83.15% with a very decent category. By visualizing how the concept of calculus works, this application has the potential to further enhance students' understanding of calculus. This application is also a form of support for government programs in providing adequate facilities and infrastructure to support educational success. In its implementation, the government can work together with schools to be able to use this application in the learning process in the classroom. The use of AR in calculus learning media can also be implemented in existing learning applications so that startups engaged in education can contribute more in helping to improve the quality of education in Indonesia.
Keywords: Android Apps, Augmented Reality, Calculus Learning, Spatial Abilities

Application of Moral Education Theory to Reform Madrassah Education, Pedagogical Strategies to Combat Terrorism in Pakistan

Dr. Ibtasam Thakur
Department of Elementary and Teacher Education, Faculty of Education, Lahore College for Women University, Lahore, Pakistan

Abstract: Extremism and fundamentalism have become buzzwords in the global war on terror and are continually attached to Madrassah (Religious schools) in Pakistan. Unfortunately, instead of becoming a significant element of society, many of the madaris have failed to bring about healthy trends among students of madaris. Pedagogical strategies play an important role in shaping young minds.This study aims to see as to what extent application of moral education theory in curricular content and pedagogical strategies, students can be engaged constructively with their existing syllabus and teaching staff their spiritual development can be placed in right direction and culture of tolerance can be promoted for all religions. This study focuses on application of Kohlberg's theory and its application in Deeni Madaris with the help of self-constructed questionnaire and focus group discussion. Nine Deobandi madaris from district Lahore was selected purposively in the study. Purposive sampling technique was used. Currently this work is in progress with the University of Cambridge, UK. Through this study, researcher will be able to identify the major challenges i.e., teaching methodology through rote learning, physical punishment, outdated curriculum, socio economic factors, funding without external audit, improper policies and let go attitude of higher authorities. This study provides the professional development of teachers who are working in these Madaris through teachers' training module being suggested to improve the level of pedagogy on modern lines instead of rote learning and physical punishment.

A Question that Arises: Did the Quality Differ in Early Childhood Centers During Covid-19?

Nahla Gahwaji
Faculty of Human Sciences and Design, King Abdulaziz University, Jeddah, Saudi Arabia

Abstract: This research will answer the question regarding the quality level of Early Childhood centers during COVID-19 period using the Quality Evaluation Tool which is an adapted and translated version of the Early Childhood Environment Rating Scale – revised (ECERS-R). The COVID-19 pandemic had a severe impact on education in general as schools closed their premises in response to lockdown measures all over the world. Although governments were quick to replace face-to-face teaching with online learning at all levels including kindergartens and preschool centers, these closures affected the learning outcomes for students as well as other developmental needs especially for children. Perhaps most importantly, the period raises questions about the quality offered by education which includes learning environments as well as social interactions. Results indicated

that quality level in public kindergartens (6 centers) in Saudi Arabia has been affected in most sub-scales of the tool, but the Interaction sub-scale was remarkably very low. Recommendations include more emphasis on children's interactions with teachers, peers, and learning environment.
Keywords: Quality, ECERS, Early Childhood, COVID-19, Saudi Arabia

How Zara Adapted its Strategies to Expand Globally. A Study of Building Brand Awareness when Expanding in a New Market through Internationalization

Marsha Nayla Zulkarnain
School of Business and Management, Bandung Institute of Technology, Bandung, Indonesia

Abstract: Zara's internationalization strategies and entry mode choices are discussed in this case study from the perspective of theories of internationalization. In order to advance understanding of fashion retail internationalization, aspects related to market selection and entry strategies are overlaid with Zara's internationalization strategies. Zara, a fashion retailer from Spain that started selling low-priced lookalike products from well-known and high-end clothing brands, now has its branding and characteristics. They decided to expand the brand internationally for them to survive. Zara appears to have developed a 'stage model' of internationalization that entails expanding into close markets first before pursuing opportunities in distant markets. To expand smoothly, Zara has implemented three different entry modes. They have their subsidiaries in proximate markets, while they use franchising or joint ventures in distant markets. Zara started the internationalization process using the 'Incremental Internationalization' pattern, in which they internationalize gradually and slowly. After they find the right rhythm, they change direction using the 'Radical Internationalization' pattern, where a company begins to expand into several foreign markets at a fast pace and at the same time.
Keywords: International Marketing Strategy, Internationalization Patterns, Zara

Recreational Challenges as Tasks to Reinforce Probabilistic Intuition

Carla Santos
Department of Mathematics and Physical Sciences, Polytechnic Institute of Beja, Portugal

Abstract: The probabilistic culture plays an important role in decision-making in situations of uncertainty in all aspects of life, in particular, it is critical in areas such as health and justice, where probabilistic mistakes can have serious consequences. Traditional formal study of probabilities consists on problems where almost exclusively the calculation component is explored. (Batanero, Green & Serrano, 1998). But reducing probability study to its mathematical algorithm does not allow the students neither to be prepared to solve non-routine problems nor to realize that the reasoning they are developing possibly conflict with their intuition. Students must be confronted with counterintuitive situations, under the penalty of wrong intuitions remain unchanged. (Leviatán, 2002). Several conditional probability problems are configured as situations in which our intuition leads us to overlook or misinterpret the additional information that we have.Some of these, such as the Bertrand box (or one of its versions, p.e. "Tree-card Swindle", Gardner,1 982), have a recreational character and can be used in interesting learning strategies with an important contribution to challenging and improving probabilistic intuition of the students. This recreational problem allows to alert students to the importance of adequate definition of the sample space. More complex variants of "Bertrand Box" problem, like "Monty Hall Problem" (Rosenhouse, 2009), can be used to teach students how to make decisions in the face of uncertainty, in particular, by using Bayes Theorem. In this work we intend to reflect on the benefits of using recreational problems for the study of probabilities.
Keywords: Probability, Bertrand Box, Uncertainty

The Era of Education in Promoting the Development of the Youth Is a Way of Sustaining the Development and Growth of Nation

Murtala Mohammed
Education and Research Department, Centre for Research, Education and Advocacy Forum, Kumasi, Ghana

Abstract: The youth who serve as the engine of a community should be well resourced in a manner to promote sustainability by establishing a business venture and embarking on teacher training. Teacher training and development refer to the processes and practices through which teachers gain, deepen, and expand their professional knowledge, skills, and dispositions. These processes and practices are complex and occur both over the course of teachers' careers and across multiple contexts, including universities, schools, and professional networks and associations. Though the research and practice of teacher training and development employ diverse disciplinary perspectives, they share a central concern with identifying both what teachers should know and be able to do to foster student learning, and which programs, practices, and policies best support teachers' learning. While these are, in part, technical questions, how scholars and practitioners think about, enact, and study teacher training and development are shaped by a wide array of influences, including their diverse disciplinary perspectives, the models of "good" teaching they adhere to, their understanding of teachers' work and teachers' learning, and their beliefs about the goals and purposes of education. These influences are further situated within particular historical and political contexts. In particular, the goals and purposes we ascribe to teacher learning and development, the resources we devote to it, and the ways in which we organize and evaluate it are intimately tied to the shifting politics and policies of both educational and social reform movements. The citations included in this bibliography lead a user to works that examine the individual and organizational processes and practices of teacher training and development and how these are shaped by the institutional and political contexts in which they are situated. In addition to works that have significantly influenced the research and practice of teachers.

Using Bloom's Taxonomy for an In-Depth Comparison of an Online and F2F Chemistry Course

Ozcan Gulacar
Chemistry, University of California, Davis, USA

Abstract: While online and face-to-face (F2F) courses have been compared in numerous studies, there has been a lack of focus on online chemistry courses. This study was conducted to compare the success of students instructed in an online or F2F general chemistry course for non-majors. One hundred forty-six exam questions were categorized according to Bloom's revised taxonomy and student success on each problem was analyzed. A comparison of online and F2F courses showed significant differences in the lowest order of thinking, "remember," with online students performing better than F2F students. A similar result was seen with the next order of thinking, "understand," but there were no significant differences observed between online and F2F students for exam questions at the "analyze" level. The observed advantage for online students may be because online instruction promotes better memorization of facts or because students good at memorization gravitate towards online courses. No significant differences were seen between online and F2F courses when comparing the various chemistry topics covered in the exams. Online instruction appears to be as effective as F2F instruction when teaching introductory chemistry topics

Keywords Bloom's Taxonomy, Chemistry Education, Online Courses, Face-To-Face Courses

The Perceptions and Experiences of School Management Teams regarding Continuing Professional Development of Teachers in Digital Literacy

Rajkumar Mestry
Faculty of Education, University of Johannesburg, Vereeniging, South Africa

Abstract: Since the coronavirus disease 2019 (COVID-19) pandemic gripped the world in 2020, the South African government, through the National Coronavirus Command Council (NCCC), introduced rigid regulations to curb the deadly novel coronavirus from spreading. The forced closure of schools was a bold step to take to manage the surge of the pandemic and save lives. While many schools resorted to online teaching, it became evident that many teachers lacked the necessary digital skills to manage online teaching programmes. Also, the lack of technological resources impacted negatively on teaching and learning in primary schools.This study aimed to determine the perceptions and experiences of School Management Teams (SMTs) and teachers regarding the provision of Continuous Professional Development (CPD) for teachers in digital literacy. The study explored ways that SMTs can support their staff through CPD in enhancing their digital literacy skills, and to investigate how SMTs can strengthen CPD for teachers and better equip them with digital literacy knowledge and skills.A qualitative research design situated within a constructivist interpretivist paradigm was selected to understand the perceptions and experiences of SMTs regarding CPD for teachers in digital literacy. Using a phenomenological approach, data was collected by means of interviews at four primary schools in the Eastern Cape Province.The study found that most SMT members did not make digital literacy a priority because they lacked the necessary knowledge and skills. SMTs were not supporting their staff, through CPD, in enhancing their digital literacy skills, as digital literacy is not currently a priority in the schools. It is recommended that teachers and SMTs should be trained in using digital platforms so that teaching and learning can be enhanced.
Keywords: Continuous Professional Development, School Management Teams, Digital Literacy, Online Learning, Digital Skills Development, Teacher Empowerment, Technological Resources

Counselling: An Effective Method to Make Successful Learner Who Influenced by Various Factors

Korikana Appaji
Dept. of Education and Education Technology, University of Hyderabad, Hyderabad, India

Abstract: In the contemporary world, most of the school children suffering from various problems in completing their school education. Some students are neglecting studies due to influenced by various factors such as school, home and personal factors. Some of them cannot cope with their studies due to unfavorable conditions. It is a significant loss to the nation because many talented students are losing their resilience. This maladjustment makes the talented students as dropouts or underachievers. This paper emphasized that the counseling method is an effective method to modify the behavior of such learners and overcome all the issues and make them successful learners. The main objective of this paper is to motivate disturbed learners who are suffering from various family and individual factors. A single case investigated over a long period adopting by case study method. Findings revealed that the attitude and behavior of a disturbed learner were modified and made a successful learner by several counseling sessions.
Keywords: Contemporary, Maladjustment, Emphasized, Underachievers

Weightlifting Training Methods for Children and beginners

Mahdi Khaleghi
Payeme-Noor University, Rasht Branch, Iran. Iranian Weightlifting Federation & Vandad Namavar Roham Company, Tehran, Iran

Abstract: A coach assumes the responsibility for doing everything possible to ensure that the youngsters or beginners, in his or her class and training center will have an enjoyable and safe experience while they learn weightlifting skills. If coach takes the fun out of weightlifting and he or she then will take the kids out of weightlifting sport. Children enter sport for a number of reasons to meet and play with other children, to learn skills and to develop physically, but their major objective is to have fun, help them achieve this goal by injecting

humor and variety into your classes. Such an approach will increase athletes' desire to participate in the future. The purpose of this research is to enhance and improve the athletes' (lifters') weightlifting abilities and skills by teaching them the most up-to-date training methods and techniques. In this method, coach will teach them how to avoid injuries while training and doing special weightlifting exercises and movements. In this method, coaches teach their athletes the fundamental skills necessary for obtaining achieving in weightlifting activities and obtaining medal at the national and international competitions. Participating in professional weightlifting workshops in other countries is beneficial and useful for the participants and increases their knowledge and skills. In addition to having weightlifting knowledge, the coach must implement proper training and safety methods. If an athlete / lifter gets severely injured in weightlifting sport, it means that the coach will lose them forever and this would be considered as a great loss for the coach. It has been concluded that if coaches pay much attention to their athletes' safety and improvement, they will be much more successful in their profession.
Keywords: New Weightlifting Training Methods, Proper Tools and Training Area, Safety Methods, Modern Knowledge & Skills, Minimizing the Risks of Injury

For a Contextualized Distance Continuing Education for Primary School Teachers in the Comoros Education System

Mohamed Abdoulhamid
Center for Literacy and Distance Education, Ministry of Education, Moroni, Comoros

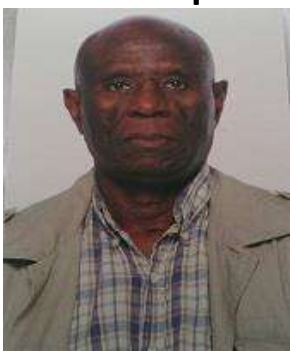
Abstract: The Ministry of National Education of the Union of the Comoros, a small French-speaking archipelago in the Indian Ocean, has a Center for Literacy and Distance Education (CAED), whose objective is to ensure literacy for all people who feel in need, but above all to offer continuous training and retraining for primary school teachers. For a very long time, CAED has provided several types of in-service distance training for primary school teachers, through several distribution channels. Firstly, through its educational radio, which broadcasts its programs around the capital, Moroni, but which authorizes a rebroadcast of these programs on the various local and community radios in the country, so that the content is accessible to all teachers. Then, by distance training after a selection: the selected teachers receive the contents of their training in paper format, then they are gathered at the center on the first Saturday of each month for observations and questions on the courses they have received. However, the advent of the Coronavirus pandemic in 2020 disrupted the centre's programs. Monthly teacher gatherings were cancelled. The follow-up of the distance training could therefore not be ensured properly. Even if the coronavirus crisis is getting further and further away, it is clear that the center's continuing education system must be reviewed, to deal with all eventualities. The Ministry of National Education is in the process of providing the center with an online training platform for teachers, both primary and secondary. But in a country where access to computers is not easy, a lot of thought must be given before the operationalization of this platform, to avoid failures. Discussions with the teachers concerned must be made to adapt the online training to their context. The objective of our communication is to propose an analysis of the perception of primary school teachers on this new form of distance learning offered to them. What representations do they have of online continuing education? What are their expectations in this training? How to make the training efficient? This study was based on a survey of 40 primary school teachers awaiting training.

The Shafiq Ur Rehman Son of Abdul Hakeem Winner, Conqueror, Designer, Owner, Wealther, King, Giant and Researcher of the World Hybrid Biological Science World

Shafiq Ur Rehman
Sir Syed UET, Hybrid Safety Department System, Karachi, Pakistan

Abstract: In this occasion of festival of human, I introduce the discovery of hybrid biological science research and development because according to my research and analysis is that everyone and all things are hybrid Biological Science with respect to living and non-living things. The discovery of this research and result is that everyone is related to each other with respect to hybrid biological science and technology. My research biological Science is that the whole biological Science modification of every theory of Albert Einstein and classical physics researcher of science and technology. I endorsed and get the result of every researcher is that everyone is hybrid whether it is human, plants and animals and microorganism. We should care each other, because we depend each other with respect to biological and physical science. It will create love and brotherhood for human, animals, plants and other creature of realm era. I want to present this research for the love between human and human being. The main purpose of hybrid research is that we should respect, love, civilization, spiritual love between each other. This is the spirit of life of human and animals. The whole research I conclude that we are related to each other with respect to biological Science.
Keywords: Hybrid Biological Science, Hybrid Brotherhood, Hybrid Science

The COVID-19 Vulnerabilities and The Ubiquitous Artificial Intelligence Linkages



Bongs Lainjo
Cybermatic International, Montreal, Canada

Abstract: The study aims to conduct an exploratory review of the Covid-19 pandemic by focusing on the theme of Covid-19 pandemic morbidity and mortality, considering the dynamics of artificial intelligence and quality of life (QOL). A review of the literature, anecdotal evidence, and reports on the morbidity of COVID-19, including the magnitude of its destructive consequences in nations such as the United States, Africa, the United Kingdom, China, and Brazil, among others, were used in this research work. This study's outcomes revealed that vulnerable populations feel the coronavirus's destructive impacts more ferociously. The elderly, front-line workers, marginalized populations, visible minorities, and others are among them. The issue in Africa is particularly

formidable due to a lack of infrastructure and financial and human resources. Furthermore, scientists are effectively employing AI technology to improve the creation of vaccinations and pharmaceuticals. The pandemic also helped us recognize the necessity of inter-personal cooperation and shared ideals. The importance of healthcare workers and other frontline workers in reacting to the epidemic is also recognized. In addition, new techniques and effective health interventions are critical in treating the crisis's negative impacts. This highlights the lessons that must be learned from the pandemic to deal with future waves of epidemics as efficiently as possible. One of these future implementations is ensuring the health and well-being of the elderly. Another crucial future implication is to use AI capabilities best to combat the pandemic at all phases.
Keywords: Covid-19, Quality of Life, Strategies, Lessons Learned, Artificial Intelligence Linkages, Vulnerable Populations

Young Adults with Disabilities and their Preparation for Adult Life

Dr. Nadine Bartlett
Department of Educational Administration, Foundations and Psychology Faculty of Education, University of Manitoba, Winnipeg, Manitoba, Canada

Abstract: Despite the growing evidence that specific transition processes and transition education are predictors of improved outcomes, for many young adults with disabilities access to these supports remains challenging. Research indicates that not all young adults with disabilities receive adequate or appropriate transition supports, services are often dependent upon the disability of the individual and supports typically decline in adulthood (Landmark & Zhang, 2013; Wagner et al., 2016). Given the importance of transition planning and the barriers that young adults with disabilities face, it is important to understand how this process is experienced so that supports may be enhanced, and life outcomes may be improved. Using a descriptive phenomenological approach this research involved qualitative, semi-structured interviews of young adults with disabilities (n=7) and their caregivers (n=13) to obtain their perspectives about the transition to adulthood. Results reveal significant gaps in transition planning and support including attitudinal, policy and programmatic barriers to further education/training, employment, and independent living success. Recommendations to foster greater equity and inclusion for young adults with disabilities are provided.

Teaching Reading According to Selective Word Clusters Among Children with Dyslexia

Noor Aini Ahmad
Sultan Idris Education University

Abstract - The problem of not acquiring reading skills is often debated in the education world. The purpose of this study was to develop framework with selective word clusters among children with dyslexia. This study employed survey as its research method. The findings showed that there was no significant difference by gender with t-value = -1.26, p = .211 (p> .05) on teaching reading using selective word clusters for children with dyslexia by gender. The findings also showed there is no significant difference on teaching reading using interactive learning materials for children with dyslexia based on gender with a value of t = 1.24, p = .222 (p> .05). The result of the Pearson correlation test on teaching reading using selective word clusters and interactive learning materials shows a significant r value = .403 ** (p <.005). By drawing on evidence from the data, we proposed framework for children with dyslexia which included three major word clusters. We also argue that to overcome the problems associated with reading difficulties, we need to take into account the selection of appropriate words as one of the foremost

factors. We conclude that this research outcomes will allow for a richer understanding of learning to read among children with dyslexia. This lays a solid foundation for pedagogic developmental efforts by using mobile application in reading activities.

Keywords: Children with Dyslexia, Reading, Interactive Multimedia

Past Traditions in Higher Education in which Scholarship of Teaching and Learning Sotl) is Built

Prof. Newman Wadesango
University of Limpopo, Polokwane, Republic of South Africa

Abstract - Scholarship of teaching and learning builds on many past traditions in higher education including classroom and programme assessment, action research, the reflective practice movement, peer review of teaching, traditional educational research and faculty development to enhance teaching and learning. The purpose of this study was to review the evolution of the term scholarship of teaching and to distinguish it from scholarly teaching and excellent teaching. The study was also conducted to scrutinise some of the above-mentioned past traditions in Higher Education onwhichSoTLis built and articulate how they are related to SoTL. I have located the research of this paper within a qualitative approach (Gay 1992; Babbie 1998; Leedy&Ormrod 2013). This decision was informed by the fact that this paper is not interested in the quantification of data. However, its main interest lies in the painting of qualitatively rich picture of the phenomena being studied within the context of limited respondents (Hall 2007; Maserumule 2011; Baugh &Guion 2016). To this end, the problem of this study is explained descriptively and theoretically for generating a crispy understanding of the concept of SoTLat large. In terms of data collection, the authors sourced and reviewed literature on the topic. Among others, these sources included journal articles, bookss, magazines and newspapers in the area of SoTL. Documentary research approach, which consists of reviewing, analysing and examining information, was adopted for the study. The following four past traditions were identified and discussed in detail in this study: classroom and programme assessment, action research, the reflective practice movement and peer review of teaching. Literature also shows that there are two terms, which are closely related to SOtL, which, are good teaching and scholarly teaching. The study discussed these two terms in relation to the concept of SoTL.

Keywords: Good Teaching, Scholarly Teaching, Action Research, Reflective Teaching, Traditional Research

The Effectiveness of the Blended Learning through Novel Coronavirus (COVID-19) on Learning Process of Calculus for engineering

Humberto Rafeiro
Dept. of Mathematical Sciences, College of Science, UAEU, Al Ain, UAE

Abstract: This study investigates the effect of novel Coronavirus (COVID-19) on the learning process of Calculus for engineering. In the last three semesters, students and faculty members were forced to change their pedagogical model from face-to-fact model into distance learning model or blending learning. This semester, we used two models: two-week face-to-face and two-week distance learning, alternatively. We investigate the effect of this change on the students of Calculus II for Engineering. We focus on two major issues which are the comparison between their achievements using filliping classroom model and the normal model and the attitude of the students toward flipping classroom model. We study which model they prefer and how they manage with this big change in the method of teaching. The participants were students at the college of science and the college of Engineering. This was the challenge to apply the flipping classroom pedagogical model with distance learning model. Many serious questions appear such that: are all students have the necessary technology for distance learning such as computers, iPads, and high-speed internet to watch the videos and to be involve in this process? Do students and faculty members have enough support from the university in order to implement such pedagogical model? What is the attitude of the students and instructors toward such pedagogical model? All of these questions and others were a big challenge to students and researchers. We focus in this study on the double and triple integrals and their applications. We divide the students into two groups: experimental group and control group. Results show improvement in the performance of the students when we use the flipping classroom learning model. First test was given to students during the ninth week of the semester, while the second test was given during the thirteen weeks. Both tests are the same and the same period of time. The study sample is taken from the students of college of Engineering. Two research instruments were designed and conducted, Test and survey to measure the impact of using flipping classroom model and compare the results between the pre and post-tests. The challenges and features of this model in teaching, which is implemented at the Department of Mathematical Sciences in UAE University for the first time, are discussed. Some of these challenges are: Do students accept flipping classroom model? Do the students accept the assessment tools of the classroom model? What do they think about learning with recorded videos? Are students accepting to do more work in and out the classroom using this model? These questions and other are answered by the students through a survey. The results of this study showed that many students face difficulties with the flipping classroom model with distance learning at the beginning while almost all of them like to learn by the flipping classroom model with distance learning model later. Students are satisfied with the online lectures and the videos which were presented. Their achievements in posttest are much better than the pretest.
Keywords: COVID-19 Pandemic, Remote Learning, Video Conferencing, Flipped Classroom

The Impact of Bilingualism on Children's Cognitive Development Among the Third Grade Students in Jordan

Carol Al-Majali
The University of Jordan, Amman, Jordan

Abstract: Bilingualism is identified as the ability to communicate fluently in a language other than your native language, as our world becomes more global, we increasingly become bilingual. The mixing of cultures leads to bilingualism specifically, exposure to language from neighbouring regions can influence the development of bilingualism. In terms of proficiency in learning two languages, equal proficiency in both the native and second language is relatively uncommon. The present work addresses itself to the effect that bilingualism, Arabic and English in this case, can have on Jordanian young learners' cognitive development. Typically, unbalanced bilingualism, or when an individual has an increase proficiency in learning two languages, equal proficiency in both the native and second language is relatively uncommon. This paper further tries to test the hypothesis that holds that the language that is stronger is not always the native language and whether learners might become more proficient in their newly learned language than their native language.

Language and Familiarity with Foreign Cultures: Lessons and Role Models from the Islamic Arab History

Professor Majed Al-Quran
The Hashemite University, Jordan

Abstract - The paper addresses how familiarity and contact with foreign cultures through foreign language learning should be an integral component of a globally-oriented educational system. Stories drawn from the universal human culture displaying intercultural communication skills can be skillfully integrated into FL teaching curricula. These are stories reflecting true behavioral patterns of honest leaders who practically translate the ideology they claim to hold. In a changing world characterized by so many spots of conflicts that are the deliberate creation of unethical politics is serious challenge not only to the global peaceful coexistence but also to its educational system. Not only did the Muslim history but also other cultures gave birth to powerful and heroic citizens whose power and charisma still rule the world. Besides, although they have become history today, they are ranked as role models and large sectors of people across different cultures still live by their preaching which absolutely match their deeds. Through foreign language teaching, the paper stresses the need for lessons conveyed by real role models cross-culturally to be integrated into educational curricula to promote familiarity and contact with foreign cultures. If wisely utilized, FL teaching and learning can be an effective means of religious tolerance, denial of extremism and the fight of terrorism instead of social divide, chaos, ever growing gap between the rich and the poor. The talk will draw cases from the Islamic history, role models who really used to inspire, instruct, and set good examples.
Keywords: Intercultural Communication, Role Models, Tolerance, Conflicts

The Use of 360 Spatial Video in Learning During Pandemic

Daryl Albright Anak Doubless John
English Language Department, Betong Vocational College, Sarawak

Abstract: Pandemic has posed threats and opportunity towards education. During the Covid-19 pandemic, educational institutions were forced to close, and transitioned from face-to-face teaching methods to online learning. This implementation has created a shift in education and promoting the digitalisation of education, in line with The National Educational Blueprint (2013-2025). In 2020, Malaysia has introduced Movement Control Order where individuals are not advised to travel and have practiced physical distancing. In this process, students and teachers have faced difficulties and obstacles in teaching and learning. In order to curb the problem, the usage of 360˚ spatial video has been introduced into the classroom during online and hybrid learning to increase the motivation of the students and allowing the students to be in a different place and time, from the comfort of their home or safe bubble in school. With the many ready resources in Youtube, the researcher compiled them in a Youtube Channel (V ARC MY) and suggested that teachers may create their own contents via 360 Camera. Through the usage of 360˚ spatial video, students are also able to truly immerse themselves in real life scenarios, or simulations in a highly immersive experience and this can be used as teaching aid for an impactful Teaching & Learning.
Keywords: Virtual Reality, Vocational College, Online, Remote Learning, Immersive, English for Second Language (ESL)

Strategic Marketing Practices and Firm Profitability of Selected Deposit Money Banks in Lagos State, Nigeria

Adefemi Adekunle
Department of Marketing, Moshood Abiola Polytechnic, Ojere, Abeokuta Ogun state, Nigeria

Abstract: The global performance of the banking industry in 2019 showed the industry experienced significant growth as total assets reached $124 trillion; however, in 2020, the attendant consequences of the COVID-19 pandemic, Brexit, and US-China trade war impaired the industry's performance. Similarly, the performance of Quoted Deposit Money Banks (QDMBs) in Nigeria experienced a decline in profitability suggestive of challenges associated with strategic marketing practices induced by the competitive nature of the Nigerian banking system. Hence, this study investigated the effect of strategic marketing practices on firm profitability of QDMBs in Lagos State, Nigeria. This study adopted a survey research design, and the population was 69,793 management staff of eleven QDMBs in Lagos State, Nigeria. A sample size of 531 management staff was computed using Krejcie and Morgan formula. The study adopted a stratified random sampling technique to select employees at the three management levels in the QDMBs in Lagos State, Nigeria. A validated questionnaire was used to collect data. Findings revealed that strategic marketing practices had significant effect on firm profitability (Adj.R2 = 0.373, Q1 = 0.183, $p < 0.05$). This study concluded that strategic marketing practices affects firm profitability of QDMBs in Lagos State, Nigeria. The study recommended that the management of QDMBs should ensure effective implementation of strategic marketing elements for the purpose of enhancing their profit-generation capacity.
Keywords: Strategic Marketing Practices, Banking Industry, Firm Profitability

Online Speaking Strategies and Tools for ESP Students

Erika Ada
West University of Timișoara

Abstract: Virtualized classrooms during the Covid 19 pandemic have pushed teachers into finding a new voice for themselves with the help of various online platforms. When considering online teaching, we also need to consider that the changes that are involved are not about the content of the lesson but about the teaching environment. In this case, the teacher has to change and adapt to the new environment which presents itself with different challenges but also tools that can be used during the teaching/learning process. The following paper discusses the question whether online platforms like Google Meet facilitate language acquisition during the speaking lesson with the help of tools such as breakout rooms, screen sharing, whiteboards, and video recording. The paper will have a look at various teaching strategies used during the online speaking lesson in an ESP classroom, as well as at the tools offered by Google Meet to facilitate language teaching and learning. It will also analyze the effectiveness of these tools by checking students' assessment. The main objective is to see to what extent learning English via Google Meet is effective for ESP students. For this we will analyze a number of teaching strategies that can be used with the help of Google Meet, such as breakout rooms, recording student's conversations during the class, screen sharing, whiteboards, chat boxes, but will also have a look at immediate feedback and language correction. The research was carried out on a group of 30, year two students from the Faculty of Geography, the West University of Timișoara. The research methods used were both qualitative and quantitative. Our findings prove that teaching speaking online via Google Meet is an effective way of language acquisition and it does not alter the teaching/learning process. Vocabulary, grammar, fluency, and structure can be easily acquired by ESP students from a distance with the help of Google Meet and its tools such as breakout rooms, whiteboard, screen sharing, and video recording. References; 1. Goh, Cristine. Teaching Speaking: A Holistic Approach. Cambridge Language Education: Cambridge, 2012. 2.Hughes Rebeca, Teaching and Researching Speaking, London, Routledge, 2017. 3. Karapetyan M. Some Tips on Animating Political English Class // Foreign Languages in Higher Educa Hanson T. L., Teven J. J. Lessons Learned from Teaching Public Speaking No 13. Yerevan, 2012. 4. Online Classroom. Ideas for Effective Online Instruction. August, 2004 // URL: http://augmenting.me/cte/resources/newsletters_archive/OC 0408.PDF. 5. Verderber R. F., Verderber K. S., Sellnow D. D. The Challenge of Effective Speaking in a Digital Age. 17 Edition. Cengage Learning, Boston, MA, 2018.
Keywords: ESP, Online Teaching, Online Platforms Speaking Skills, Speaking Strategies

Research: Is Online a Better Option in the Postpandemic Era? - A Research on the Romanian Economic Higher Education

Dan Popescu
Bucharest University of Economic Studies, Romania

Abstract: In the past two years, the educational process arround the world has suffered tremendous change due to the COVID-19 pandemic. Both professors and students had to adapt really fast to the new conditions imposed by the totally new situation we faced. The progress of IT&C has enabled today's online communication to become increasingly mobile. As a consequence, the universities around the world, have adapted instantly their learning process, using both internal platforms that were already created and used on a smaler scale before the pandemic, but also external resources. This study represents an in-depth analysis of the online education process in romanian

economic universities, considering as main factor the professional development of the students. Moreover, the research presents some facts observed after returning to the classical form of education – in campus both by students and professors. The results of this study show that online education has definitely some benefits we can't neglect but the reality proved that the overall results in what concerns the professional progress of the students is much lower than in face-to-face learning. Surely, the future is going to oblige us to think about hibrid forms of education but meanwhile, we have to find ways to streamline the learning process both in campus but especially in online.
Keywords: Education, Online, Pandemic, Professional Progress, Universities

Research: Students' Professional Communication Abilities after the Pandemic Crisis – A Case Study on the 3rd Year Students of Management Faculty

Cristina State
Bucharest University of Economic Studies, Romania

Abstract - Communication is the base of interpersonal relations. The results of all the activities we undertake depend on how we communicate, and despite of the fact that it is of the utmost importance that we submit evidence for our communication skills, we are getting worse at doing so. The motivation that leads us to this research was the fact that we noticed a change in the behavior of students regarding the way they interact in the classroom after two years of online activities. Our study aims at revealing whether and to what extent the online education process has altered the communication skills of the students. The research "Students' Professional Communication Abilities after the Pandemic Crisis" was conducted between 02-30 April, 2022 on the basis of an online questionnaire. The research methodology which helped us accomplish our objectives for this study is based on quantitative research. The results show that after returning to classes, the students face difficulties in interacting both with colleagues, but especially with professors. Furthermore, when having to present projects in front of the class, the majority of students admit that they face a state of anxiety very difficult to manage.
Keywords: Anxiety, Communication Skills, Video, Pandemic Crisis

Children's Rights and The Cultural Nexus in The African Context: Abuses and Policy Implications

Dr Icarbord Tshabangu
Institute of Childhood and Education, Leeds Trinity University, Leeds, United Kingdom

Abstract: Despite improvements in awareness and observance of children's rights as enshrined in the United Nations Convention on the Rights of the Child, most parts of Africa have lagged far behind. There continues to be disproportionate maltreatment and lack of protection of children's rights compared to other regions in the world.

This study explored childhood perceptions and experiences of their rights from different case studies in different countries, particularly Western and Southern Africa. The study noted several types of maltreatment encountered by children and the associated risk factors. Findings from reviews indicate notable recurrences of maltreatment among children and youth at a greater rate compared to other regions. These types of maltreatment included excessive child labour and exploitation; discrimination by family members; sexual and physical abuse and voicelessness. The main associated risk factors were traditional paternalistic perceptions of childhood, poverty, living with non-biological caregivers, alcoholism, and substance abuse. The findings indicate a great need for awareness, prevention and intervention initiatives aimed at curbing child abuse and neglect of children within communities.
Keywords: Maltreatment, Protection, Children's Rights, Africa, Abuse, Ubuntu

Training Well-Informed Administrators for Art Institutions through an Intensive Program of Art and Culture Management

Mehmet Emin Kahraman
Ph.D., Faculty of Art and Design, Yıldız Technical University, Istanbul, Turkey

İsmail Erim Gülaçti
Ph.D., Faculty of Art and Design, Yıldız Technical University, Istanbul, Turkey

Abstract: Technological products, within all sectors and institutions, are most felt in sub-disciplines of art such as video, photography and cinema and problems of finding a place to exhibit the works of young artists still continue today. Although there are art institutions that support young artists, they appear to be very few in the total number of art institutions, compared to the overall view of the art ecosystem. Considering the personal decisions of the managers of these few art institutions, opportunities are getting smaller for young artists and curators. So, increasing the recognition of young artists is in line with the mission and vision of any education institution. For this purpose, 30 young people between the ages of 18-29 interested in art and culture were chosen and invited to a program of 100 hours of training and education to be trained as managers of art institutions such as galleries and museums. They studied courses like project management, cultural heritage studies, new media and art economy for 4 weeks. At the end of this period, they organized an exhibition for artists selected by a jury, which they were also a member of. Thus, they were able to put into practice all the theoretical knowledge they received during the training as managers of art institutions and help young artists to find recognition to exhibit their works using latest exhibition techniques. This study examines all this process that combines theoretical and practical aspects of art education and provides suggestions for both higher and lifelong learning education institutions.
Keywords: Adult Education, Higher Education, Continuing Education, Art Education, Vocational Education

The Automated Generation of Subtitles and Live Chat Translation: A Real Opportunity for The School System

Marie Trouvin
President of Keytrad SAS, Belmont, France

Abstract: Machine translation tools can be used for several purposes, one of them being the automated translation of subtitles, especially for online courses. Combined with an integrated live chat, where all the conversations are automatically translated, this new way of learning can be a chance to communicate with the international students and pupils. E-learning has become very popular, particularly in a time where individuals are interested in self-development. Even universities, schools and institutes have developed a great interest in teaching and learning online. Indeed, generating subtitles for uploaded videos is a game changer for the school system to be easily accessible: No more language barrier between the provider and viewers. With the integrated live chat, the students and teachers have the possibility to communicate without having any language barrier. Automation in the language industry, if well used, is a great tool for schools to be accessible to their international viewers, to interact with them and to attend new courses. This presentation, we'll touch upon technical process and highlight how the school system can benefit from using automation.

What Role does a Coaching Approach to Teachers' Professional Development Play in Informing the Efficacy of Arab Teachers Working within an International School within the UAE?

Victoria Hopkin
Educational Consultant and Ph.D. Student, University of Exeter, Dubai, UAE

Abstract: Self-efficacy and teachers' collective efficacy are deemed to be one, if not the most important factors in establishing highly effective learning in schools. However, evidence suggests that the levels of self-efficacy of Arab teachers working in international schools is, on average, much lower than European teachers working in the same schools. Addressing teacher self-efficacy is coming to the fore of teacher professional development yet research which explores the means for promoting and improving self-efficacy remains sparse. My research therefore seeks

to explore whether coaching, as a form of teacher professional development, can positively impact the self-efficacy of Arab teachers working in an international school in the UAE.

Develop A Framework Using Goal Pursuit Theory (Based on Theory of Planned Behavior) To Predict Intention of Mature Students Returning to Higher Education in the UK

Ria Ibhrampurkar
Visiting Lecturer, Strategic Management Department, Business Management Research Institute, University of Bedfordshire, United Kingdom

Abstract: Several factors influence the intension of mature students to pursue higher education in the UK. These factors form the key issues for the tertiary education authorities to acknowledge. Hence, this research identified these factors. In order to achieve this a systematic review of intention of mature students to pursue higher education was conducted. The factors that presented some link to pursuing higher education were personal development, employability, student engagement and student loan. It is recommended further research is conducted to identify the factors contributing towards the intention to pursue higher education to build a solid evidence base for development of future higher education policies specially around enrollment, entry requirements and assessments in providing student loans. Based on the factors, a theoretical framework has been developed using Goal Pursuit Theory (based on Theory of Planned Behavior) has been developed that could be implemented in future research to predict the behavior and generate evidence around mature students' intention to pursue higher education.

Becoming an English Language Teacher in Nepal: Exploring Painful and Gainful Experiences

Laxman Prasad Bhandari
Lumbini Banijya Campus, Butwal, Nepal

Abstract: This paper explores the lively and multifaceted dimensions of my being and becoming an English language teacher. I employ autoethnography as an approach to self-reflexivity on the professional re-construction of myself through my painful and gainful experiences. The purpose of this self-reflective account is to encourage access to localized ways of knowing, being, and becoming through my transformative journey. That access is much needed in English language education research in the epoch in which epistemological understandings are continuously changing. The paper concludes by discussing how I create my own professional experiences from a

rural schoolboy to a university English language teacher.
Keywords: English Language Learning, Professional Journey, Painful and Gainful Experiences, Professional Growth, Teacher Educator

INSTALLATION ART Performatics For Peace Through a Decolonial Perspective

John Alexander Rodriguez Peñuela
Doctorate in Educational Sciences, University of Cundinamarca, Colombia

Abstract: The artistic practices that are generated in the public schools of the country have the need to provide a new perspective where the imposition of knowledge and knowledge is avoided by building thoughts, discourses and social, political, aesthetic and ethical positions that encourage research and creativity for transformative purposes of an environment or a community through an artistic language and a decolonial look that favors intersensibilities and the expression of the same. This research aims to explore and contribute to the construction of knowledge, transformation and transfiguration of the school environment from the analysis of conflicts and collective problems in a school environment such as bullying, low self-esteem, depression, physical and psychological violence and mediation from installation art as a methodological tool within a contemporary art education. The methodology applied is framed in the Action Participation Research, which will allow to establish the recognition of the context and the relationship that the teacher artist-researcher carries out with the students and the community, determining the problems and affectations that are generated from there, evidenced by means of laboratories and intersensitive and intersubjective experiences (drawings, social cartographies, corpographies, sonorities, performances, etc.), to be later analyzed and systematized. Subsequently, Creation Research is applied as a methodology based on installation art as a creative research instrument. A pilot test is chosen in five public institutions in the city of Fusagasugá where these strategies are replicated from art education. It is expected that such applicability will generate new significant knowledge, connected to a certain reality that surrounds the students and their own inner world. From the application of the theoretical design, the recontextualization of the communities and the functioning as sensitive aesthetic experiences, the reflection and reformulation of the school arts curriculum and the daily dynamics experienced in a particular community is sought, which influences the welfare within the school community to develop a new awareness of the previously mentioned problems.
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Keywords: Artistic Education, Decolonial Pedagogies, Art

Use of Case Study Method in Biology Class

Salpynova Kanym
Methodical Association of Biology, Nazarbayev Intellectual School Physics and Mathematics Direction, Almaty, Kazakhstan

Zabolotnaya Antonina
Methodical Association of Biology, Nazarbayev Intellectual School Physics and Mathematics Direction, Almaty, Kazakhstan

Iztleu Anar
Methodical Association of Biology, Nazarbayev Intellectual School Physics and Mathematics Direction, Almaty, Kazakhstan

Annotation: Through case study technology, the article addresses the issue of individualization of learning in the practice of school education. The authors share their experience with using case studies in a biology lesson. Assignments reveal opportunities for students to engage in independent intellectual activity and develop critical thinking skills.
Keywords: Cognitive Activity, Critical Thinking, School Biology, Case Method

In the current fast-paced environment, people need to adapt rapidly to the world's changing conditions. One of the main characteristics of a modern person is the ability to think critically and analyze thoroughly. Such characteristics in person should be formed from schooling time. The teacher must find effective teaching methods and techniques that interest the students and convey the educational material to them. A case study is a method that can increase students' learning motivation and creativity, and change habitual approaches to learning. The pedagogical potential for developing professional competencies of a biology teacher in case technology is much greater than in traditional teaching methods [1]. While using a case study method, the teacher and the student constantly interact, choose their forms of behavior, collide with each other, motivate their actions, and justify them with moral standards. The use of case technology is not focused on obtaining one correct answer but rather on many judgments and conclusions in the problem field. The case study method is an educational technology, the basis of which is a methodically organized process of detailed analysis of specific situations (cases), during which students develop certain skills. The case method involves the study of a subject, a specific problem from different points of view. Such training develops students' ability to think and solve problems they face or may face in their sphere of life.

Cases are designed to achieve specific learning objectives. Furthermore, this is different from the ordinary situation, which is a simple description of what happened sometime in the past. According to N.D. Strekalova, the purpose of the case is to give a detailed description of the facts, the analysis of which allows students to gain knowledge and skills [2]. The goals of this technology:
- Teach to analyze information both individually and in a team;
- Identify the key problems of the proposed situation;
- Choose the best solutions and form a course of action;
- Achieve specific social competencies.
To use a case, it should meet specific requirements:
- Correspond to a clearly defined topic, problem, and purpose of the discussion;
- Have a level of difficulty accessible to students;
- The situation should be illustrated with examples from real life;
- Provide a basis for reflection and decision-making;
- Stimulate discussion.
The case can be presented in several sentences or expanded on several pages. It may have one or more answers and many alternative solutions. Tasks for students can be divided into three groups:
- Assignments before the lesson/study of the topic;
- Assignments in the classroom when studying the topic;
- Assignments after the lesson, when repeating and consolidating the studied material.
Assignments are given before studying a new topic to focus students' attention when working with a text/a topic; foreground the problem under study through an appeal to personal experience in order to organize the students' search activity, focused on the topic of the future discussion. The case study methodology is based on a discussion in class on a given topic-problem and its further discussion in groups on specific fragments of this problem, followed by a presentation of the results. The characteristics of the context are revealed in the content of the training case. At the same time, the opinion of the case developer should not be included in the content ("neutral" description) [3]. Before the discussion, there should be preliminary preparation, both by the teacher and the student. The teacher must select a case, determine the main and additional materials for work in groups, develop a scenario for conducting a discussion, a format for presenting the work of groups, and a system for evaluating students. The student receives a case or requirements for the formation of his / her part of the case, a list of recommended literature, individually prepares for the lesson, develops a solution, implements his / her version or offers it to a group of students, and makes a report in the form of a presentation. The decision-making stage is assumed initially and must be completed by a specific date.

[4] Methods and results of research.

Discussions

The experiment involved students of the 9th grade NIS PhM Almaty, Kazakhstan: 9B and 9K were experimental classes, and 9M was the control class in this research. At the beginning of the experiment, figures in control and experimental classes were at the same level. The efficiency of our study can be evaluated in relation to the goals and objectives by the outcomes of acquiring the capability to examine biological content. Learning outcomes in the psychological and pedagogical literature are frequently defined using particular knowledge and skill criteria. Observations during experiential learning allowed us to choose criteria and ways to measure the effectiveness of using case technology. During the experiment, we directed our efforts to form analytical skills. Under this, we distinguish criteria and methods for measuring the assimilation of the skills to analyze based on knowledge about the properties and mechanism of enzyme operation, causal, probabilistic, and target relationships. To determine students' ability to analyze material on the topic of enzymes, they were asked to solve a case that included various questions during the study of the topic (4 hours). In the final lesson on the topic, a case was also offered. Digital materials of the control results are shown in Figure 1. Analyzing the data in Figure 1, we see that more than 60% of students coped with the case analysis. 71% of students could analyze the case's content based on

establishing cause-and-effect relationships, and only 29% did not cope with the task. Analyzing the data on the indicator of formulating a conclusion on a case, we can validate that the majority of students in the experimental classes (62% on average) were able to formulate conclusions correctly. On this basis, we believe that the process of developing the skills to analyze biological material was carried out effectively. Based on this, we can conclude that the case study approach gives a positive result.

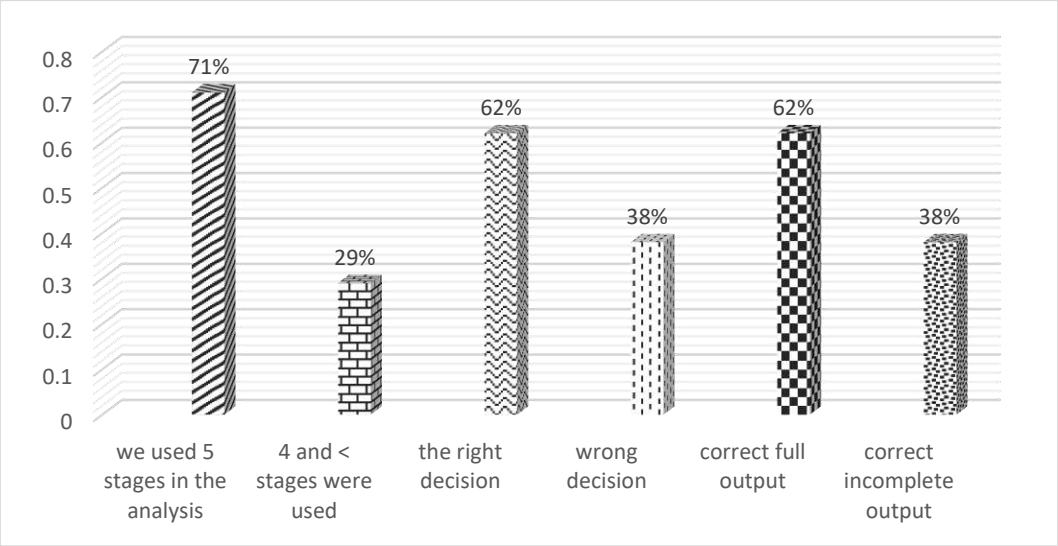

Figure 1. The results of solving the case to determine the degree of mastery of the ability to analyze the material on the properties and mechanism of enzymes (in %). Also, the proof of successful teaching of students based on the use of case technology is the monitoring of knowledge on the studied topic of the lessons. Monitoring was carried out in grades 9B, 9K and 9M. The table provides an overview of the students' knowledge quality and level of learning in the experimental classes. Table 1. The quality of knowledge and the level of students' learning (experimental and control classes).

Assessment, %	9B (experimental)	9K (experimental)	9M (control)
85-100	7,0	6,0	3,0
65-84	14,0	13,0	11,0
41-64	3,0	5,0	10,0
Less than 40	0	0	0
Total	24,0	24,0	24,0
Quality of knowledge	87,5	79,2	58,3
Level of training	100,0%	100,0%	100,0%

The data in Table 1 show a relatively high quality of knowledge and the level of training of students in the experimental classes. It was also essential for us to find out the viewpoint of ninth-graders about the use of case technology in the lesson. To do this, at the final stage of training, they were surveyed on the following questions: (the results of the survey are presented in the table).

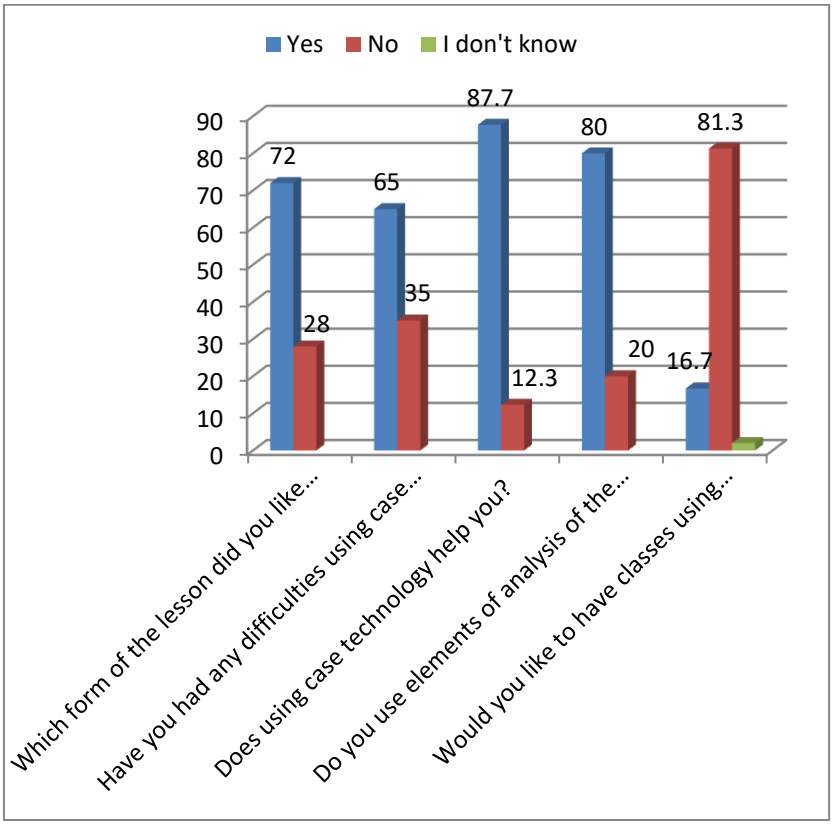

Figure2. The results of survey of students. Analyzing the content of the obtained results as a whole, we can state the following: as the use of case technology in biology lessons increases, students' interest in the standard form of the lesson decreases; despite the relatively difficult tasks, students' interest in their implementation does not decrease; students suggest combining the use of a traditional lesson and a lesson with a case technology. Therefore, the experimental data obtained allow us to state that this technology is effective. It can be used in biology lessons to form students' biological knowledge and especially the ability to analyze the material, and will also increase the motivation for learning and stimulate the cognitive interest of students. As cases in relation to general biology, it is better to use those that would allow analyzing biological material based on the use of laws or rules, establishing and disclosing the content of causal, target, and probabilistic relationships. Work Citations / Bibliography

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Differences In Collegiality Practices Among Public Schoolteachers from Kindergarten Through High School: A Mixed Methods Study

Ahmed M. Alkaabi
United Arab Emirates University, UAE

Noura M. Alhammadi
United Arab Emirates University, UAE

Amna A. Alsuwaidi
United Arab Emirates University, UAE

Shaikah A. Alzeyoudi
United Arab Emirates University, UAE

Haleema J. Alnaqbi
United Arab Emirates University, UAE

Abstract: This mixed methods study investigates the extent to which practices of collegiality and cooperation exist among teachers of public schools in the Emirates Schools Establishment. The investigation centers around five components of collegiality, namely (1) Teachers collaborating with one another about students; (2) Teachers collaborating with one another about curriculum; (3) Teachers observing one another's teaching; (4) Teachers teaching one another; and (5) Teachers and administrators learning together. This study begins with a quantitative approach to gather basic data about the phenomenon under study and then follows up with a qualitative approach to dig deeper into the findings. At the onset of the study, a survey of 33 items on a Likert scale was administered to 237 schoolteachers. Using the survey data, the one-sample T-test was conducted to discover statistically significant differences in all five domains, which indicated some positive collegial practices and cooperation as perceived by teachers in the Emirates Schools Establishment. Additionally, a one-way ANOVA revealed statistically significant differences in the degree of collegiality and cooperation from one school level to another, especially in Domain Five: Teachers and administrators learning together. For example, kindergarten teachers demonstrated a higher level of collegiality than elementary school teachers, who in turn showed a higher level than middle school teachers. However, the jump from middle school teachers to high school teachers did not show a significant change. After interviewing teachers from each school level, the researchers found several influencing factors that explained these varying levels. First, the atmosphere and culture of kindergarten was more harmonious and conducive to high collegiality between teachers and other teachers, and between teachers and administrators. The norms in kindergarten were established in such a way that teachers worked together to create the curriculum, and they worked with administrators to achieve school goals without much worry over excessive work-related stress. Unfortunately, this feature diminished with every step-up in school level from kindergarten to high school. In an attempt to counteract that trend, this paper concludes with implications for boosting collegiality practices as well as tips for future research.
Keywords: Collegiality, Collaboration, Kindergarten, Elementary School, Middle School, High School, Teachers, Administrators, Emirates Schools Establishment

Experiences of University Teachers with Emergency Remote Learning During the COVID-19 Pandemic: A Qualitative Case Study

Ahmed M. Alkaabi
United Arab Emirates University, UAE

Fatima Alkatheeri
United Arab Emirates University, UAE

Aisha Alnaqbi
United Arab Emirates University, UAE

Maha Alawlaki
United Arab Emirates University, UAE

Latifa Alameri
United Arab Emirates University, UAE

Bushra Malhem
United Arab Emirates University, UAE

Abstract: This qualitative case study examines the self-efficacy of university teachers during the COVID-19 pandemic as they struggle to incorporate new technology, teaching strategies, and curriculum delivery in the shift from total remote learning to biweekly rotation learning—two weeks of face-to-face learning and two weeks online. This study was conducted over two full semesters among university teachers teaching undergraduate students with the rotation model at one federal university located in the United Arab Emirates. A case study design was used as a methodology to guide this research with a primary data collection method of semi-structured interviews of 12 teachers corroborated by both in-person and online classroom observations. Participating teachers were from various colleges within the university, including medicine, education, business, law, humanities, and science. The data from the interviews and observations were analyzed using a thematic analysis, which yielded the following six themes: (1) continuously changing expectations, (2) mixed feelings regarding technology self-efficacy, (3) loss of learning among undergraduate students, (4) trial and error with teaching strategies, (5) the need to consult with students in the teaching and learning process, and (6) the shift from struggle to resilience. The results of the study indicated that having clearer expectations, proper technology training, and intradepartmental collaboration may help educators overcome the challenges associated with the hybrid rotation model. These results are expounded thoroughly along with relevant implications for robust leadership practices to enhance the quality of teaching and learning during potential future crises.
Keywords: Self-Efficacy, Blended Learning, Rotation Model, Hybrid Learning, Teachers, Universities, COVID-19

Methodology for Research Informed Teaching and Learning in Electronics Engineering

Viranjay M. Srivastava
Department of Electronic Engineering, Howard College, University of KwaZulu-Natal, Durban, South Africa

Abstract: In the fast-growing era of Engineering and Technology, in particular, the Electronics Engineering modules/subjects have become a challenging area now a days to educate the students in this Covid-19 scenario. This present research work has a proposed methodology to help the students improve their learning by including practical laboratory and research. This proposed methodology will assist students in developing creative concepts and electronic devices for advanced device applications related to Electronics Engineering. The main emphasis is on Research Informed Teaching (RIT) and learning with design projects centered on the Bachelors, Masters, and Doctorate students. In addition, this work discusses the research projects, teaching methodology, etc., which can be helpful for academicians and students.
Keywords: Engineering, Electronics Engineering, Research Informed Teaching, Teaching and Research Methodology, Design Projects, Diversity and Inclusion, Work Integrated Learning
Introduction: A disease named coronavirus (COVID-19) came into force since the end of the year 2019, which is a global spread and the World Health Organization (WHO) declared it a pandemic in March 2020. To date, the world has paid a high toll in this pandemic regarding human lives lost, economic repercussions, and increased poverty [1]. The comparative selection between continuing or ending the lockdown with an optimal control model encompassing health and economic outcomes was examined [2]. The shutdowns impacted students, including mental health consequences of much concern because depression, stress, and anxiety affect the student's learning ability. The challenges faced by students during this period were described by Youmans [3]. Gelles et. al. [4] have described a qualitative case study where they interviewed students (in 2020) to explore how they adapted to the transition of remote learning. The university-based empirical work in groups to learn about research can be replaced by an online mechanism while maintaining task value and acceptable self-efficacy [5]. Muller et. al. [6] have explored university educators' eLearning practices and future adoption intentions. Thorough interviews with various educators were conducted. The educators had limited online experience before the COVID-19 emergency online learning and expressed preferences for in-contact sessions. Pre-service teachers' skill and knowledge acquisition regarding Evidence-Informed Teaching (EIT) help to build more promising beliefs about the utility of various theories and evidence [7]. Dierdorp [8] has investigated whether the impact of a Science, Technology, Engineering, and mathematics (STEM) teacher's EIT approach using the suggestion of flipping the classroom research improves students' enthusiasm and if this methodology allows students to accomplish better. Welsen et. al. [9] have analyzed the Science and Engineering students' usage and attitudes towards e-books when using their available e-readers, which include computers or portable devices. The key deliberation is enabling the safe return of as many students and teachers as possible with keeping physical distancing [10]. Bubou et. al. [11] have suggested that recent challenges are maintaining pace with technological dynamism, high attrition, and quality teaching and learning requiring multifaceted tactics. Annie and Shemim [12] have outlined an itinerary for constructive associations between research and teaching to be pursued by individuals and Higher Education (HE) institutions for advancing in RIT. In higher educational institutes, in particular, the Electronics Engineering subject specializing in Micro-Electronics becomes challenging to teach and to learn for both academicians and students, respectively [13, 14]. Regarding the COVID-19 pandemic, various institutes, university classes, and laboratories shifted to remote learning. In multiple cases, these requirements intersected in productive ways with updated modules and course content for virtual environments [15]. Kiernam [16] has considered the best performance for teaching in online mode through examining academic moves taken for environmental studies courses during the COVID-19 situation. Dargar and Srivastava [17, 18] have summarized teaching methods with technological integration for the electronic engineering cluster students. However, engineering education was primarily focused on that work. To overcome these issues, the author has suggested some features to speed up the research-informed teaching, mainly towards Electronics Engineering. The author's teaching philosophy is the delivery of an

impressive and technically sound lecture with engaging content, which is imperative to render such a lecture engaging, informative learning which is easily understood by the students being taught at the time. Doing so allows the students to gain knowledge and learn. It gives a vision that students can become innovative and entrepreneurs, not only the user. This paper has been organized as follows. Section 2 has the process followed for Research-Informed Teaching (RIT). Section 3 has the proposed methodology for research-informed teaching and learning. Finally, Section 4 concludes the work and recommends the future aspects.

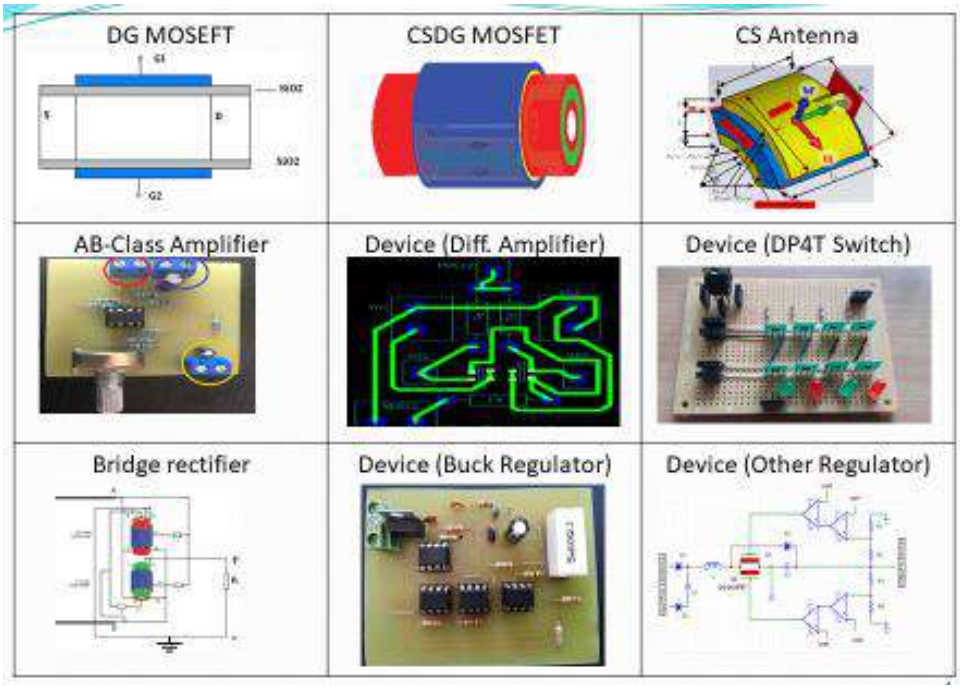
Process Followed for the Research Informed Teaching It is challenging to deliver face-to-face lectures and perform in laboratories for Advanced research in this scenario. Also, contribution towards the research/supervision of international standards, including inter-disciplinary aspects, is a nightmare now a days. Collaboration with colleagues in the university to develop joint research projects and secure the funding required for the long-term growth of the research activity is a challenging aspect, as various travel restrictions and frequent meetings with peers. Also, scientific or professional conferences were on halt. In addition, students' involvement in becoming technical members of various professional and technical societies, such as the student chapter, reduced drastically. Engagement in organizing the workshops, seminars, and conferences converted to an online medium is a complex case for the people of rural areas or for the non-technical person. To overcome these issues, the author has proposed some suggestions in this research work. The author's philosophy of teaching is that delivering an impressive lecture with engaging content is imperative to render such a lecture engaging, informative learning which is easily understood by the students being taught at the time. In the author's opinion, leaching and learning is a continuous process and it is two-way communication between the learner (students) and educator (lecturer). Thus, from the author's perspective, the process of learning is constitutive of various aspects, such as:

- Identifying the level of the student's background knowledge.
- Taking a few lectures to revise the pre-requisite for the recent subject.
- Present the core module lectures with impressive content (PPT, chart, overhead projector, smartboard, etc.) so that it will attract students' attention.
- Providing the lecture notes and other required materials to the students after the lecture.
- Providing extra lectures for students deemed weak is done with the view of making these students comfortable with the module.
- To understand the learning, a regular mock test or surprise test can be organized, so the lecturer can understand students' learning capability.
- Providing detailed solutions of the tests and exams and marks in a short time.
- A session for the explanation about the exam question answers.
- Getting feedback from the students taught in the modules in question.

In this scenario, delivering face-to-face lectures and performing in laboratories for advanced research is challenging. Also, contribution towards the research/supervision of international standards, including inter-disciplinary aspects, is a nightmare now a days. Collaboration with colleagues in the university to develop joint research projects and secure the funding required for the long-term growth of the research activity is a challenging aspect, as various travel restrictions and frequent meetings with peers. Also, scientific or professional conferences were on halt. In addition, students' involvement in becoming technical members of various professional and technical societies, such as the student chapter, reduced drastically. Engagement in organizing the workshops, seminars, and conferences converted to an online medium is a complex case for the people of rural areas or the non-technical person. To overcome these issues, the author has proposed some suggestions in this research work.

Proposed Methodology for Research Informed Teaching and Learning To gain the momentum toward research informed teaching and learning, the following steps can be followed:

Stage 1: Students should be informed about the prospective employer (if they are job seekers) or company (if they are entrepreneurs) related to their field of study, e.g., microelectronics / electronics / mobile companies, etc. It will create interest in the students so they can select a goal for after their studies. For example, Fig. 1 shows various research aspects. Fig. 1. Perspective research opening areas [19, 20].



Stage 2: The news related to the latest technology can be informed to the students, which gives an idea to the students that the subjects which they are going to study in the present semester are related and in line with the latest research on the market, which will be helpful to materialize these in terms of product design (shown in Fig. 1). These can be accompanied by handouts, PPT presentations, and online materials, and during covid-19, shifting to Kaltura, Moodle, Zoom, Team, Google-meet, etc.

Stage 3: Revision should be done for each subject at the starting of the semester, such as: engineering mathematics; electrical and electronic principles; communication systems, devices & circuits; integrated circuits, Bipolar Junction Transistor (BJT), Metal Oxide Semiconductor Field Effect Transistor (MOSFET), etc. [21]. In addition, for the research work, it should also be done in the same manner. For example, circuit designing for simulation, mathematical analysis for the research work, simulation methods using Assembly language, Keil, SUPREM, MATLAB, PSpice, VEE Pro (Agilent), Lab View, ModelSim (VHDL and VerilogHDL), Xilinx, Microwind, Micro-Cap, ADS, etc., and prototype model as shown in Fig. 2.

Stage 4: Some specific questions should be asked to the students at regular intervals, such as (example for microelectronics related subjects): why Cylindrical Surrounding Double-Gate (CSDG) MOSFET, what is CSDG MOSFET, what you will do to improve this device, and how to design CSDG MOSFET with its advantages, comparisons with the existing models, etc. Thereafter, allow the students to select any two or more parameters so that they can show their creativity to nurture this device further. The author encourages his students to be curious, address theory and problems critically, exert their common sense, and expand their lateral thinking abilities. In most of the lectures, he gives a few short answers to questions so that students can participate actively to remain attentive during the lectures. Another critical factor here is that during these short-answered questions (active lecturing), students can interact with their classmates who are in proximity. This encourages cohort cohesion and creates a sense of identity for students, thus reducing students' alienation resulting from being isolated. The author believes in a student-centered approach, providing students with individual assistance, and dealing promptly with student issues by liaising directly with the student, program supervisor, and other college personnel as required. Fig. 2. (a) Circuit for Simulation, (b) Mathematical analysis snapshot, (c) Simulation analysis, and (d) Fabrication [22].

Stage 5: Various fundamental theories can be explained to the student, such as: in the Double-Gate (DG) MOSFET, the gates are only on the two sides of the substrate; these gates can be extended on the all-around the device and designed like a cylinder; and thereafter its benefits should be explained. It has less contact area with the board as compared to the other MOSFETs (thereafter, its comparative disadvantages and benefits should be explained), its

switching speed analysis with benefits should be explained; also, future applications in electronic devices can be discussed. In addition to these, the instructor can provide extra lectures for students deemed weak and is done to make these students comfortable with the subject.

Stage 6: However, the electronic device application and demands from the consumer side are increasing day by day. Therefore, the research should also be advanced in line with these objectives, which enforces to the universities to upgrade the syllabus and course contents. In line with this, the course curriculum should be revised regularly, say 2-4 years' time. It can be done via adding a new course/subject (e.g., nanotechnology, 5IR, 6G, etc.), making any traditional compulsory subject to optional, to make space for a new trends-related subject. Moreover, a lecturer should be extensively involved in improving the modules / programs at an individual level and within a program team. This has been made to rethink the curriculum and to develop sound, relevant and innovative programs and modules.

Stage 7: It will be an interactive idea to form the design project as an individual or group level. For example, fabrication of CSDG MOSFET, quantum effect analysis (for channel length of 10 nm range), hot-carriers effect (device degradation for high power and high-frequency applications), various materials effect on devices e.g. Hafnium di-Oxide (HfO2), a high dielectric, with superb adhesion to metals such as Aluminum and Silver; performance achieved by the switch can be further improved by using better technologies, footprint saving, pick and place effort analysis for Integrated Circuit (IC) design [23-26]. As a lecturer, it's responsibility to create and oversee a comprehensive classroom so that every learner can feel comfortable participating in the conversation. One of the effective ways to encourage students of different backgrounds is to engage them with peer dialog at one platform. During this process, students learned from each other and appreciated the diversity. Author have various occasions to inspire students to pursue studies (undergraduate)/ higher studies (postgraduate) in Electronics Engineering, for example, by creating a social media platform for group discussion (as per university guidelines); during this group project, students interact with each other, and in addition to the technical contents, they learn about the diversity and inclusions such as: diverse culture, disability, ethnicity, heritage, language, traditions, country of origin, etc. [27-29]

Stage 8: The authors' philosophy regarding diversity and inclusion is that all students and researchers should be given equal opportunity. As author works with various students, researchers, faculty, and staff regardless of their diverse culture, disability, age, ethnicity, gender, heritage, language, race, religion, sexual orientation, socioeconomic status, traditions, country of origin, etc. With these experiences, the author has learned how to effectively connect with people of various backgrounds different from his own. The author believes that diversity inclusion in the lecture room and research group is critical for academics.

Stage 9: Regarding the postgraduate student, the author initially explains the roles, functions, and responsibilities of the supervisor & the student, ethical issues related to the research & supervision processes, and university rules & regulations for postgraduates. Thereafter, plan a program for regular meetings. Then, the discussion of the requirements of the project and its feasibility starts. Finally, a standard proposed work plan gets prepared once the student has understood what is expected of them. This allows students to integrate their theory subject knowledge with the proposed project.

Stage 10: Now, various Universities and industries are opening their door (due to minimized effect of Covid-19); therefore, a Work Integrated Learning (WIL) approach can be introduced as a course curriculum at the undergraduate level [30-32]. It will give a view to students that how the industries work. It will boost the student's ability to learn effectively with a hand on experimental approach.

Stage 11: In between the course or in the regular semester, faculty can apply for funding to various external sources such as research foundations, etc., it is specific to countries. As to sustain the research an external funding is required, which also includes the peer's review on the proposed / designed projects. The author is engaged in solving the problems arising in the advanced technologies with students by providing the students' necessary guidance. This entails a detailed process of probing into how a specific problem in research can possibly be solved. After resolving the defined problems, the author represents his university through the research outcomes at

various international conferences in South Africa and international universities. In this manner, he builds national and international contacts and participates in networks with colleagues to exchange information and collaborate with them in future research fields.

Stage 12: Finally, during the exam, a blended approach can be followed, which means 50% can be organized in the examination hall, and 50% can be arranged online. It can vary as per the curriculum of the particular university.

Conclusion and Future Scope of the Work

In this work, the author has proposed a methodology for research-informed teaching and learning for Electronic Engineering. This work is mainly centered on undergraduate and postgraduate students involved in Electronics Engineering research. It discussed the teaching methodology to Bachelors, Masters, and Doctorate students, including diversity and inclusion. These are the suggested steps. In addition, various other steps can be adopted in the future as the situation changes due to online to face-to-face medium of teaching. In addition, this work has a direction, which can be used as a template to design the course curriculum of a specific subject.

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Project Daim (Development of Appropriate Instructional Materials) for the Deaf and Hard of Hearing in the New Normal

Minguela Ting
Department of Santa Rosa, University of Perpetual Help System, Jonelta Binan, Philippines

Abstract: PROJECT DAIM (Development of Appropriate Instructional Materials for the Deaf and Hard of Hearing in the New Normal Instructional Materials (IMs) are the tools that are used by teachers and instructors within schools to facilitate learning and understanding of concepts among students. (Kapur 2019) These are the educational materials that are used within the classroom setting to support the learning objectives, as set-out within the lesson plans. When teachers are unable to use effective teaching- learning strategies, children suffer setbacks. Therefore, to enrich the system of education and to enable the individuals to achieve academic goals, it is essential to implement effective teaching- learning materials. The study supported the creation of educational resources for learners with impairments, specifically for deaf and hard-of-hearing students, in preparation for the New Normal. This study used a descriptive-quantitative approach. The researchers created a researcher-made questionnaire that examined parameters such as significance of instructional materials, objectives of developing instructional materials, availability of appropriate instructional materials in sign language validated by LRDMs team. Based on the result, the study revealed that the development of appropriate instructional materials should be taken into consideration to improve the teaching and learning process of the deaf and hard of hearing learners. The findings derived from the study includes, the instructional materials are put into practice by the educators with the primary objectives of imparting learning among students regarding the academic concepts and enabling them to achieve their goals and objectives and the development of instructional materials impact teaching and learning of deaf and hard of hearing learners. Furthermore, it was recommended that the schools division office should organize workshops, seminars and conferences for teachers to enable them update their knowledge on new developments on the use of instructional materials and school heads should supervise their teachers more closely to ensure that the available instructional materials are effectively utilized.
Keywords: Instructional Materials, Deaf, Hard of Hearing, Sign Language

Towards a Tertiary and Vocational Education Model Canvas

Nathan Polley
Faculty of Education, Tabor College, Adelaide, Australia

Abstract: Although the business model canvas by Osterwalder has been used and adapted for over a decade to start-ups, social businesses and sustainability – to name a few, no attempt has been made to adapt this to tertiary education. This project sought to synthesize concepts of cultural capital by Bourdieu with the business model canvas to create an education model canvas that enables tertiary and vocational education institutes to create, capture and delivery value to learners. This article explores potential uses of this tool for education leaders and educators and how this can be used to improve tertiary and vocational educational governance and strategic decision-making at faculty and institute levels.
Keywords: Business Model Canvas, Tertiary Education, Vocational Education, Cultural Capital

Mapping Faculty Conceptions of Assessment with their Practices of Assessment: What, When, why, and how to assess Learners in an Online Context

Sahbi Hidri
Department of Education, Women's Campus, Higher Colleges of Technology, Abu Dhabi, UAE

Abstract: The present study investigates the extent to which university teachers' conceptions of online assessment are congruent with their online practices of assessment, and how these conceptions and practices of assessment relate to students' learning. While much has been written on conceptions and practices of assessment in face-to-face environments, little is known about how faculty understand and use assessment in online contexts such as the pandemic. Drawing on a sample data of 314 faculty belonging to different departments in a university context in the UAE, teachers were asked to define their agreement with assessment conceptions (using Brown's inventory (2006) on school accountability, student accountability, improvement, and irrelevance of assessment), as well as their frequency of using practices of assessment (purposes of assessment, methods of assessment, and test design) in an online survey. Descriptive and inferential statistics were conducted to check if there was any mapping between conceptions and practices of assessment. Findings of the structural equating model (SEM) indicated that teachers had a distorted view of assessment both at the theoretical and practical levels since Brown's model was found to be inadmissible in this context. Also, faculty had conflicting views about assessment practices. We conclude that teachers need to be more committed to the conceptions and practices of assessment and that policymakers should involve teachers in continuous PD programs to empower them to be more assessment literate, and therefore, map the assessment conceptions with their practices. The study had implications for assessment policy and planning in this university context.
Keywords: Online Conceptions and Practices of Assessment, Model Fit, AMOS, FACETS, HCT, UAE

Soft Skills for Employability from Lecturers' Perspectives

Norshima Binti Zainal Shah
Language Centre, National Defence University, Kuala Lumpur, Malaysia

Abstract: Critical thinking (CT) is said to be an obstacle for employment. Employers claim that graduates do not have Soft Skills even though CT has been embedded into the school curriculum since the 90s and reached tertiary level in 2008. In addition, the Malaysian government has encouraged the use of CT skills in higher education institutions through the introduction of Soft Skills, which include communications' skills, problem solving and thinking skills, continuous learning skills and information management skills, work in group skills, leadership skills, entrepreneurship skills and professional ethics. This study focuses on the Soft Skills for graduates' employability through three objectives: to investigate the Soft Skills needed by graduates, to check whether graduates have the soft skills needed for employment, and whether soft skills are being taught at university. The research methodology

consists of a survey aimed at lecturers at the Language Centre, National Defence University of Malaysia (NDUM), following a mixed model approach. The online survey has both close and open-ended questions and is analysed using SPSS v.25.0 and manual thematic analysis. Results indicate that the most wanted Soft Skills are Communication Skills, Problem Solving and Thinking Skills, and Teamwork Skills. Lecturers agree that graduates or new employees need to be equipped with the Soft Skills needed for employment and they perceive those skills are taught at the university. The lecturers agree on the importance of Soft Skills, and this is supported by the overall findings. This research suggests that the higher educational institutions to teach the Soft Skills either through a course specifically for Soft Skills or integrated into courses to meet employers' needs.
Keywords: Critical Thinking, Affective Domain, Graduates' Employability, Higher Education Institution

Boosting Buddy: A Conversational Agent for Improvement of Mental Health in Roman Urdu

Aqsa Ali
Minhaj University, Lahore, Pakistan

Abstract: Sentiment analysis is extremely critical in our lives. People express their emotions in several different ways, including facial expressions, movements, speech, and text. Artificial intelligence (AI) text-based conversational agents offer higher circumstantial and on-time support rather than the human coach. Only 750 trained psychiatrists are working in Pakistan, which makes the situation worse. This study aims to figure out how to detect emotions adapted from Roman Urdu text documents. Previously, many researchers worked hard and put so much effort into it. Several Languages were passed through emotion detection tests, but there is just a small amount of Roman Urdu work. As an outcome, it is a need to learn Roman Urdu, as it is a frequently spoken language for communication on social platforms. Since many natural language processing tasks use language resources, the most common issue for Roman Urdu is the non-availability of standard corpus for sentiment detection from text documents. The sentiment study of text uses multiple objectives, including optimizing product quality, dialogue programs, investment patterns, and mental well-being. To concentrate on the Roman Urdu sentence's emotional polarity, we built a corpus of 3634 sentences collected from various disciplines and annotated it with eight distant classes in this study. This dataset contains seven core emotions: sadness, fear, happiness, anger, shame, guilt, and neutral. The data was collected from the people with the help of Google Forms, word press form and with the help of different questions and answers with the specification of the text. For this purpose, the Isear dataset was being used.
Keywords; Roman Urdu, Depression, Cognitive Behavioral Theory (CBT), Emotion Detector

The Interactive Whiteboard in the English Language Classroom in Government Schools in Kuwait

Dr. Wafaa S. Al-Yaseen
Associate Professor, Department of Curriculum and Instruction Kuwait University, College of Education, Kuwait

Abstract: The spread of interactive whiteboard use in the field of education has been well acknowledged. It has shifted the focus from regular teaching to the involvement of technology represented in the interactive whiteboard. Research shows that it helps in increasing the standards of educational learning and achieving the expected learning outcomes of learners. There is strong research evidence supporting its effectiveness of it and its

positive educational values, which makes it a significant strategy in the English language classroom. Students become responsible for their own learning. This paper gives an in-depth understanding of the interactive whiteboard as a learning tool and its advantages based on its relevance to the English language classroom in government schools in Kuwait. Therefore, the focus will be on defining the interactive whiteboard, its theoretical background of it, its applications in the English language classroom, and its impact on the learning process. The paper finishes with some educational implications for the EFL classroom

The Exploration of Students' Perspectives, Utilization, and Perceptions of Lecture Capture in Online Classes

Charat Khattapan
Graduate Education, Sharon Lust School of Education, Augustana University, Sioux Falls, South Dakota, USA

Nicky Khattapan
Ph.D., Instructional Design & Instructor - Augustana University

Abstract: This poster presentation presents the survey results that investigated the students' perspectives, utilization, and satisfactions of lecture capture video clip in an online class. Based on the survey results at the end of the selected online classes, students prefer to use the lecture capture video clip as their study materials for their online classes, and they also demonstrate strong preference toward online class that equipped with lecture capture video clips. The survey results (n=86) revealed several important factors that could be implemented into online class preparation and considered for study habits. Additionally, majority of the students also believe that multimedia in online classes can help them understand class contents better than exclusively using text-based learning materials.

Review of Distance Education

Aggawan Sa
Buddhist Studies, Magadh University, Bodhgaya Bihar, India

Abstract: The current study discusses the nature of distance education. It indicates the main characteristics Which distinguish distance from traditional education. The study also summarizes the advantages and Disadvantages of distance education. It discusses the new technologies by which this form of Education is implemented. The study also emphasizes Web-based education which is prevalent and growing in popularity.
Keywords: Distance Learning, Information and Communication Technologies, Web-Based Education

Design of Inquiry Learning Model Integrated Ethno-Stem for Profile Analysis of Volatile Organic Compounds (VOC) from Tropical Forest Herbal Tea Extracts to Provide Literacy Student Conservation

Sudarmin
Chemistry Education Department, Semarang State University, Semarang, Indonesia

Kasmui
Chemistry Education Department, Semarang State University, Semarang, Indonesia

W. Sumarni
Chemistry Education Department, Semarang State University, Semarang, Indonesia

S. Priatmoko
Chemistry Education Department, Semarang State University, Semarang, Indonesia

S. Diliarosta
Chemistry Education Department, Semarang State University, Semarang, Indonesia

Abstract: This research aims to find a design of Inquiry model integrated Ethno-STEM for profile analysis of volatile organic compounds (VOCs) from herbal tea extracts from Indonesian tropical forest plants to equip students with conservation literacy. This research is basic research to find an integrated design between the inquiry learning model and Ethno-STEM for profile analysis of the VOC tropical forest plant herbal tea extracts. The research was carried out in the Chemistry department, while the research for the VOC was carried out at the Chemistry Laboratory for the Natural Product course with the research subjects of UNNES chemistry education students. The instruments used were questionnaires and observation sheets of experimental results of VOC profiles analysis from herbal tea extracts of tropical forest plants from Bajakah, Akar kuning (Yelow Root), Sarang Semut (Nest Ant), and Taxus Sumatrana. In this research, trapping VOCs from herbal teas tropical forest plants uses an herbal tea-making tool with Arduino sensors of types MQ-9, MQ135, TGS 2602, and 2620. Meanwhile, the development and discovery of the design of the Ethno-STEM integrated inquiry learning model uses stages Analysis, Design, Development, Implementation, and Evaluation (ADDIE). The data from the analysis and design of The Inquiry Learning Model integrated Ethno-STEM obtained were validated. The results of the research found that the integration model between the Inquiry Learning Model and Ethno-STEM was an Integrated model with the Sudarmin syntax. While the results of the analysis of the VOC profile of tropical forest plants are hydrogen, propane, carbon monoxide (CO), alcohol, Carbon dioxide (CO2), toluene, ammonia, acetone, heptane, and gaseous acid sulfide. Student responses to the applied learning model are good and students are equipped with conservation literacy.
Keywords: Inquiry model, Ethno-STEM, Volatile Organic Compound, Conservation Literacy

The Determinants of Audit Fee for Companies in Indonesia

Muhammad Khafid
Accounting, Faculty of Economics, Universitas Negeri Semarang, Semarang, Indonesia

Ahmad Fadhil Izzani
Accounting, Faculty of Economics, Universitas Negeri Semarang, Semarang, Indonesia

Abstract: The purpose of this study was to analyze the effect of the board of commissioners, firm size, profitability, and firm risk on audit fees. The population of this study are financial sector companies listed on the Indonesia Stock Exchange during the period 2017-2020. The sampling technique used is purposive sampling. Companies that meet the sample criteria are 28 companies with 4 outlier data so that the total research data is 108 units of analysis. The data is obtained from the company's annual report. The data analysis technique used to test the hypothesis is multiple regression analysis with IBM SPSS Statistic 25 software. The results of the study found that the board of commissioners and firm size variables have a significant positive effect on audit fees. While the company's profitability has a significant negative effect on audit fees. However, the company's risk does not affect the audit fee. Future research is still needed by finding other proxies to measure the company's risk variables.
Keywords: Audit Fee, Board of Commissioner, Company Risk, Firm Size, Profitability

Science Learning with Ethno-Steam Approach to Improve Creative Thinking Skills and Problem-Solving Prospective Teachers

Woro Sumarni
Chemistry Education Department, Faculty of Mathematics and Natural Sciences, Universitas Negeri Semarang, Semarang, Indonesia

Abstract: Prospective teachers need creative thinking and problem-solving skills to support the quality of their teaching. Learning science with the Ethno-STEAM approach has the potential to train these skills. Therefore, this research was conducted, aiming to describe the creative thinking and problem-solving skills of prospective teachers in the application of learning with an ethno-STEAM approach. The research method used is sequential exploratory mix. The subjects of this study were 80 prospective teachers from two universities in Central Java, Indonesia. The research instrument was an essay test of creative thinking and problem-solving skills. Based on the results of the study, it can be concluded that the teaching of science with the Ethno-STEAM approach that is applied is able to improve the creative thinking and problem-solving abilities of prospective teachers in terms of the N-gain price in the medium category.
Keywords: Ethno-STEM, Creative Thinking Skills, Problem Solving Skills, Science Teaching

Project-Based Learning (PBL) in Entrepreneurship Class in a Higher Education Institution

Sri Utami
Faculty of Economics, Universitas Negeri Semarang, Semarang, Indonesia

Karsinah
Faculty of Economics, Universitas Negeri Semarang, Semarang, Indonesia

Zainab Mohd Zain
Universitas Teknologi Mara (UiTM) Melaka

Abstract: Project-based learning (PBL) is one of the teaching methods that can be carried out in a classroom. This paper aims to explore the implementation of the project-based learning (PBL) method in an entrepreneurship classroom in a higher education institution. The research employs a qualitative approach using several students' project reports or documentation. This study found that project-based learning can trigger students to gain hands-on experience in how to create and manage businesses. Furthermore, the students directly experienced how to cope with challenges in running the business because they were involved in analyzing and solving the issues. Therefore, students also develop their problem-solving skills because they directly participate in business activities.
Keywords: Project-Based Learning (PBL), Entrepreneurship, Higher Education

Strengthening Tolerance Education in Early Childhood as an Effort to Maintain the Integration of Diversity in the Era of Technological Disruption

Tri Joko Raharjo
Non-Formal Education, Universitas Negeri Semarang, Semarang, Indonesia

Abstract: The diversity that Indonesia has including ethnicity, race, religion and culture has resulted in the importance of strengthening tolerance education in children from an early age. Tolerance prevents existing extremism, educates children to respect and accept differences. Strengthening tolerance education is also important in the era of technological disruption. The pandemic conditions that have been passed have resulted in the use of the internet in early childhood being a special concern for parents and teachers. The learning process using internet media results in the need for early childhood digital literacy. Children's understanding of cyber bullying is violence and harassment through the internet, then cyber faud is in the form of incorrect information on the internet such as hoaxes, fraud and online transactions. Children must also understand the existence of pornography such as indecent pictures and immoral videos. Understand cyber gambling in the form of gambling games under the guise of social media games. Cyberstalking is kidnapping with acquaintances on social media. The negative impact of technological disruption can be avoided by upholding the values of tolerance.

Utilization of Virtual Gallery as Conservation Batik Products Marketing Media with Partners in Semarang Raya

Fakhrihun Na'am
Department of Family Welfare Education, Universitas Negeri Semarang, Semarang, Indonesia

Wulansari Prasetyaningtyas
Department of Family Welfare Education, Universitas Negeri Semarang, Semarang, Indonesia

Maria Krisnawati
Department of Family Welfare Education, Universitas Negeri Semarang, Semarang, Indonesia

Eka Yuli Astuti
Javanese Language and Literature Education, Universitas Negeri Semarang, Indonesia

Alfa Faridh Suni
Electrical Engineering, Universitas Negeri Semarang, Indonesia

Erna Setyowati
Department of Family Welfare Education, Universitas Negeri Semarang, Semarang, Indonesia

Teguh Prayitno
Department of Family Welfare Education, Universitas Negeri Semarang, Semarang, Indonesia

Abstract: This study is a continuation of the applied research that has been carried out by researchers, where the previous applied research resulted in innovative batik products with high commercial value. The batik products produced need to have an accommodating media in order to be introduced to the community in the region. Batik produced in previous research has aesthetic and functional aspects with high economic value, and is prospective to become commodity products. The manifestation of this prospective media is through the creation of a virtual gallery making it attractive and easily accessible on several social media platforms, websites, and applications that can be downloaded with smartphones. The study implementation method begins with product identification, identification of relevant virtual gallery media in regard to level of interest, level of marketing potential, followed by publications through various complementary social media platforms. The resulting product of the previous study in the form of batik is extremely attractive with background, function, form, aesthetics and tempo, duration, moment of the users. Therefore, researchers are interested in creating galleries through various applications and

programs. This similar function aims to jointly realize product marketing that is oriented in commodities as well as entrepreneurial spirit to target students, lecturers, and partners, through a virtual gallery display as the identity of each user as well as unified idea and notion realization, attracting consumer interest as one of the down-streaming process of the research programs objectives. The product gallery format will be presented in an attractive manner, easily accessible with displayed product choices, and accessible to general public. The role of partners is also maximized considering the fact that partners have access to user communities thus facilitating networking between researchers and consumers. Through this, a sustainable collaboration is formed using knowledge transfer from the university that has abundant academic potential, creative ideas, batik creation that begins with exploration, observation and research, hence producing creations that not only prioritize aesthetic aspects and functions, but are also prospective for commodity products.
Keywords: Batik Product, Virtual Gallery, Online Marketing, Application

Student's Intention to Use Shopee Pay: Unified Theory of Acceptance and Use of Technology Analysis

Ahmad Nurkhin
Faculty of Economics, University Negeri Semarang, Semarang

Hengky Pramusinto
Faculty of Economics, University Negeri Semarang, Semarang

Kardoyo
Faculty of Economics, University Negeri Semarang, Semarang

Mushin
Faculty of Economics, University Negeri Semarang, Semarang

Dwi Noor Rachmawati Puspadiningrum
Faculty of Economics, University Negeri Semarang, Semarang

Abstract*:* Shopee pay is the most widely used digital wallet service by Indonesian customers during the COVID-19 pandemic. This study aims to analyze the determinants of students' intentions to use Shopee pay based on the unified theory of acceptance and use of technology (UTAUT). The research sample is Universitas Negeri Semarang (UNNES) students who have used Shopee pay in online purchase transactions. There are 135 respondents in this study. Questionnaires were used to obtain data. Multiple regression analysis was used to analyze the data that had

been obtained. The results of the study indicate that performance expectancy, facilitating conditions, and habits can determine students' intentions to use Shopee pay. Meanwhile, effort expectancy, social influence, hedonic motives, and price value were not proven to be the determinants of students' intention to use Shopee pay. The results of the study provide evidence that students' habits in online shopping will affect their intention and behavior to continue to use Shopee Pay as a digital wallet service. Online purchase transactions will be easier for students to do. Moreover, students have quality smartphones. The intention and behavior of using digital wallets will increase significantly.

Keywords: Intention to Use Shopee Pay, UTAUT2, Performance Expectancy, Facilitating Conditions, Habit

Analysis of 8th Grade Junior High School Student's Mathematical Literacy in Contextual Teaching and Learning

Mulyono Mulyono
Mathematics Department, Universitas Negeri Semarang, Semarang, Indonesia

Dwi Rahmawati
Mathematics Department of Universitas Negeri Semarang, Semarang, Indonesia

Abstract: Mathematical literacy is very important for students, to help them understand the use of mathematics in daily life. The aims of this study are to analyze the classical mastery in Contextual Teaching and Learning model, compare with the expository model, analyze the differences of mathematical literacy of male and female students, and find out students' mathematical literacy based on mathematical literacy test's result. This study uses mix method. Sample selection by random sampling. The population in this study was 8th grade students of SMP N 2 Pekalongan with sample were class E and class F of grade 8th students. Data collection technique were tests, questionnaires and interviews. The result showed that: students' mathematical literacy in Contextual Teaching and Learning model: achieve the classical mastery, was better than students' mathematical literacy in expository learning model, there is no difference in the mathematical literacy of male and female students, there are three categories in students' mathematical literacy based on mathematical literacy test's result: high, medium and low. Student with high mathematical literacy have been achieved all of components of mathematical literacy. Student with medium mathematical literacy: (a) in reasoning and argument component met very well criteria (b) in using symbolic language and operational techniques component met well criteria (c) in formulating strategies, mathematizing, using mathematical tools, and representation met quite well criteria (d) in communication and using mathematical tools component met not good enough criteria. Student with low mathematical literacy (a) in the reasoning and argument components met well criteria (b) in representation component met quite well criteria (c) in communication, formulating strategies, mathematizing, using symbolic language and operational techniques and using mathematical tools component met not good enough criteria.

Keywords: Mathematical Literacy, Contextual Teaching and Learning, Mathematical Literacy of Male and Female

Students

Transformation of the Indonesian Legislative System following the Decision of the Constitutional Court Regarding the Law 2021 on Job Creation

Martitah Martitah
Faculty of Law, Universitas Negeri Semarang, Semarang, Indonesia

Arif Hidayat
Faculty of Law, Universitas Negeri Semarang, Semarang, Indonesia

Rahayu Fery Anitasari
Faculty of Law, Universitas Negeri Semarang, Semarang, Indonesia

Abstract: The decision of the Constitutional Court Number 91/PUU-XVIII/2020 regarding the case of the Formal Examination of Law Number 11 of 2020 concerning Job Creation, which was followed up by the stipulation of Law Number 13 of 2022, resulted in a transformation of the legal system in Indonesia. The political dynamics of legislation that has given rise to many lawsuits to the Constitutional Court shows that the quality of the formation of good laws must be improved, guided by a series of principles of good legislation. This article investigates how and to what extent the Indonesian parliament carries out its legislative function, as well as the transformative viability of a good legislation system in the future. This article argues that the transformation of a good legislative system requires: regulation, capacity and institutions that promote transparency, participation, effectiveness and efficiency, from planning to evaluation (ex ante and ex post). In addition, a pattern of consultation and communication based on public benefits is needed. This article suggests that the transformation of the legislative system needs to reformulate the planning, institutions and capacity for the formation of laws. In addition, the authorization of the use of ICT needs to be accelerated as a means of digitizing legislation.
Keywords: Transformation, Legislative System, Legal System

The Historical Approaches towards Child's Education: Locke, Rousseau, and EU Comparison

Zdenek Vopat
Ph.D., Faculty of Education, Charles University, Czechia, Prague, Czech Republic

Abstract: In my contribution I would like to examine how the approaches towards children's' education change over a period of time. I am going to argue that approaches towards education are not value neutral, and that reflect

the particular epoch. To demonstrate this idea, I would like to compare Locke's and Rousseau's approaches towards child education. Then I would proceed to compare their ideas with the approach of the EU towards the education. As a research approach I am going to use a textual analysis of Locke's and Rousseau's works on education. As far as EU is concerned, I am going to use the textual analyses of the official EU documents. I am going to argue that Locke's emphasis on private education which aim should to be prepare the young boy for its future role of a leader reflects Locke's position in English society. On the other hand, Rousseau's more "hands free" approach towards education reflects not only upcoming ideas of a French revolution which aim was to get rid of royal despotism, but also it is an anticipation of romanticism with its accent on individualism and return to nature. I am going to argue that European Union with its emphasis on competitiveness is closer to Locke's ideas on education.
Keywords: Child education, Locke, Rousseau, EU

Teaching Tolerance in Indonesia: A Study on the Ministry of Education Youtube Channel

Irawaty
Faculty of Law, Semarang State University, Indonesia

Abstract: The aims of this research are: 1) to explore and analyze which video has the strongest message in teaching tolerance to students in Indonesia; and 2) to analyze the advantages and disadvantages on expanding the ¬¬teaching on tolerance using youtube conducted by the Education Ministry of Indonesia. This research applies a qualitative approach. The data is taken by observing 13 videos contain tolerance of the Education Ministry of Indonesia. The youtube channel name is Cerdas Berkarakter Kemdikbud RI. The playlist name which contains the teaching of tolerance is kata mereka (What They Say). The method used in data analysis is content analysis which is based on a series category for each research aim. The findings of the research are: 1) the video is has the strongest message in tolerance teaching for students in Indonesia is the video with title Kisah Toleransi Memaknai Perbedaan untuk Mencapai Tujuan Kebaikan Bersama di Kabupaten Bogor (The Story of Tolerance Interpreting Differences to Achieving the Goal of the Common Good in Bogor Regency); 2) the advantages are: can reach more viewers (not only teachers and students), more contextual and can provide strong messages to teach and spread tolerance teaching, more interesting. While the disadvantages: only reach viewers who have internet connection and internet quota. The outcome of this research is an inspiration to construct a project derived from the video that has the strongest message on teaching tolerance for relevant subjects. Based on this study, future quantitative research with university students as respondents with the same topic will be conducted.
Keywords: Teaching, Tolerance, Youtube, Teaching Methods, Advantage

Hybrid Learning Implementation in Teaching and Learning at University: Problems and Solutions in Indonesian Context

Fathur Rokhman
Indonesian Language and Literature, Semarang State University, Semarang, Indonesia

Abstract: This research was conducted based on the academic concern to the world of education during the Covid-19 outbreaks that affect and have a significant impact on learning and learning activities, especially at universities in Indonesia. Hybrid Learning as a model combining online classroom and in person activities was tried to be implemented to overcome the teaching and learning problems during this pandemic era. This model is expected

to be able to anticipate the stagnation of teaching and learning process and other academic activities in this time. On this occasion, the researcher searched the problems of teaching and learning activities faced by 10 teachers and 246 students as the research participants at Universitas Negeri Semarang and observed the implementation of the Hybrid learning in the classroom. By conducting qualitative research with multiple case studies approach the researcher used online closed questionnaires, online in-depth interviews, and classroom observation (hybrid classes). The data were collected, tabulated, and analyzed qualitatively by using interactive model. Based on the results of research, it was found that 83% of participants agreed that Hybrid learning model is very effective for teaching and learning during and after pandemics. 72% of participants agreed that all courses can be carried out by using Hybrid learning. 97% of participants agreed that the Hybrid learning model is beneficial for students who cannot be present in person in the classroom because of being far from school, sick, working, and other reasons. The conclusion is that an average of 84% agreed that the hybrid learning model is very effective for teaching and learning in the time and post-pandemic.
Keywords: Hybrid Learning Model, Implementation of Hybrid Models, Teaching, Learning

Google Translate and Grammarly Combination for a Better-Quality Translation of Paper Abstracts from Indonesian into English

Rudi Hartono
English Language and Literature Department, Semarang State University, Semarang, Indonesia

Abstract: This research was motivated by concerns over the quality of paper abstract translation from Indonesian into English produced by translator students. Google Translate and Grammarly Combination (GTG-Com) was applied to improve the translation quality in the levels of accuracy and naturalness. The researcher used a pretest and post-test one-group design and involved ten students as participants in a group. In the pretest stage, the researcher asked them to translate their paper abstracts from the Indonesian language into English using Google Translate (GT). Then in the post-test phase, the same group translated their abstract using GTG-Com. The data were collected, tabulated, and analyzed descriptively using the T-test formula. To measure the accuracy level of translation, the researcher used the score 3 (accurate), 2 (less accurate), and 1 (not accurate). For the naturalness level, he used the scores 3 (natural), 2 (less natural), and 1 (not natural). Based on the research results of the translation accuracy level, it was found that the GTG-Com produced a more accurate translation than Google Translate (GT) did. The translation accuracy of using GTG-Com App is 2.65 (accurate), while using GT is just 2.00 (less accurate), and the difference score is 0.65. In the translation naturalness level, GTG-Com also produced a more natural translation than GT did. The naturalness score of GTG-Com is 2.74 (natural), while GT usage is just 2.48 (less natural), and the difference score is 0.26. It can be concluded that the GTG-Com can produce a more accurate and natural translation than the GT usage.
Keywords: Google Translate, Grammarly, Translation Quality, Paper Abstract, Accuracy, Naturalness

Improving Student Soft Skills and Increasing Bumdes Business Capacity through Partnership Internship Programs

Nurjannah Rahayu Kistanti
Faculty of Economics, Universitas Negeri Semarang, Semarang, Indonesia

Shanty Oktavilia
Faculty of Economics, Universitas Negeri Semarang, Semarang, Indonesia

Fafurida
Faculty of Economics, Universitas Negeri Semarang, Semarang, Indonesia

Abstract: The study aims to reveal the effectiveness of implementing the Village Owned Enterprises (BUMDes) internship at the Department of Development Economics, State University of Semarang to improve students' soft skills and increase the business capacity of BUMDes. The data collection technique used a survey technique aimed at students and Bumdes partners involved in internship activities. The analysis technique used is descriptive quantitative and CIPP (Context evaluation, Input Evaluation, Process evaluation, and Product evaluation). The results showed that implementing the BUMDes internship was in accordance with the Merdeka Learning curriculum. Further, the selection of BUMDes is in accordance with the established criteria. In terms of process, all programs are implemented well. Students experience increased professional soft skills, professional development, personal growth, and capabilities. The internship program also provides benefits in increasing the capacity of BUMDes, such as the partner Bumdes getting a Legal Entity Certificate. Besides, the program also increased income earned and the availability of BUMDes financial reports. The overall BUMDes internship has been running effectively. The findings of this study are that the implementation of internships is effective, and it is hoped that in the future, similar activities can be carried out again by adding more BUMDes that can be assisted to benefit from the programs.
Keywords: Improvement of Soft skills, Business Capacity, Village Owned Enterprises (BUMDes), Internship

Development of Digital Augmented Reality Media in the Distance Learning Strategy in Indonesian Learning in the Era of the Industrial Revolution 4.0 for First Middle Students

Farid Ahmadi
Faculty of Education Universitas Negeri Semarang, Universitas Negeri Semarang, Semarang

Elok Fariha Sari
Faculty of Education Universitas Negeri Semarang, Universitas Negeri Semarang, Semarang

Abstract: The general purpose of this research is to reveal the need for technology-based distance learning that utilizes virtual augmented reality media to improve the quality of education. While the specific purpose of this research is to develop distance learning-based augmented reality media as an effort to improve the quality of education. The theoretical benefit of this research is that it becomes a basic study where the fundamental theory of distance learning is applied using today's technology. In addition, it practically provides a new understanding for the world of education regarding the use of virtual technology as a form of educational technology facilitation which includes the domain of management, and practical ethics of distance learning. The development model adopted in this study is the ADDIE model to create android-based learning media products for Indonesian language learning, the ADDIE stages include Analysis, Design, Development, Implementation, Evaluation.
Keywords: Development, Media Learning, Bahasa Indonesia, Augmented Reality.

Development of Wordwall as an Online Evaluation Tools for Improving Student's Enthusiasm

Novi Ratna Dewi
Department of Integrated Science, Universitas Negeri Semarang, Indonesia

Luthfi Hanum
Department of Integrated Science, Universitas Negeri Semarang, Indonesia

Abstract: The enthusiasm of students in participating in the evaluation is still not good. Many evaluation tools still have not used technology, so they are considered less attractive to students' enthusiasm. Evaluation tools that attract enthusiasm are expected to encourage students to obtain the desired grades. This study aims to analyze the quality of Wordwall and students' enthusiasm for using Wordwall as an online evaluation tool. This study uses the ADDIE model. The results showed that the quality of Wordwall as an online evaluation tool is valid and highly reliable. The results of the enthusiasm questionnaire obtained an average achievement of 89.3% in the excellent category. The value of student enthusiasm gain is 0.46. This research concludes that the quality of Wordwall as a measuring tool in online evaluation is valid and has high reliability and student enthusiasm is in the excellent category.

Financial Literacy of Teacher in Business Education

S Martono
Department of Management, Faculty of Economics, Semarang State University, Jawa Tengah

Arief Yulianto

Department of Management, Faculty of Economics, Semarang State University, Jawa Tengah

Abstract: The presence of financial literacy will produce individuals who are more capable of managing finances, and the future is better prepared. The strategic role of teachers is that they are graduates of the Institute of Teacher's Education (LPTK) and are responsible for implementing the curriculum of financial literacy. Time value of money, as a basic of subject in financial literacy to understand another subject. Thus, our paper aims to determine the teacher's understanding of the concept of time value of money are present value, future value. The data collected are 22 teachers of business education of senior high school in Semarang City, 14 from private schools, and 8 from public schools. We use one sample t-test to analyze interval-scale data about the test of time value of money. Our result is that teachers can distinguish present and future value in the concept of simple, compound interest, and ordinary annuity. They can conclude, the presence of a longer period and greater interest, has produced less present value and greater future value. The presence of teachers who are more understood, can produce students who are more competent in financial literacy than teachers who do not understand the concept of time value of money. Thus, the presence of competent teachers in financial literacy can produce more successful programs than financial inclusion by government.
Keywords: Financial Literacy; Teacher of Business Education, Time value of money; Financial Inclusion

Ethnomathematics in Indonesia: Exploration of the Form of Worship Buildings and Traditional Housing and Its Integration into Learning Mathematics

Prof. Dr Zaenuri
Mathematics Department, Faculty of Mathematics and Natural Sciences, Universitas Negeri Semarang (UNNES), Semarang, Indonesia

Abstract: The purpose of this research is to analyze the forms of buildings in places of worship and traditional houses in Indonesia and its integration in learning mathematics. The study was conducted in Central Java and East Nusa Tenggara Provinces. Research objects are traditional places of worship and houses. The research sample is students of SMPN 1 Danggu, Klaten Regency and SMPN 1 Malaka Tengah. Data was collected using the method of observation, interviews, and tests. Data were analyzed descriptively and inferentially. The results showed, the forms of places of worship, namely Borobudur Temple, Menara Kudus Mosque, Blenduk Church and Sam Poo Kong Temple, as well as various traditional houses: Joglo and Musalaki can be used as a source of ethnomathematics learning. Mathematical communication skills and mathematical literacy of students who are taught with the MEA model (eliciting activities model) with ethnomathematics better than conventional models.
Keywords: Indonesian Ethnomathematics, Building Forms, Places of Worship, Traditional House, Learning Mathematics

Designing the Blueprint of Capacity and Competence Development Model of Higher Education Lecturers through Total Quality management approach to Support UNNES in Achieving Legal-Entity Higher Education Institution

Sucihatiningsih Dian Wisika Prajanti
Faculty of Economics, Semarang State University, Semarang, Indonesia

Mungin Eddy Wibowo

Faculty of Economics, Semarang State University, Semarang, Indonesia

Fatona Suraya
Faculty of Economics, Semarang State University, Semarang, Indonesia

Darmoyo
Faculty of Economics, Semarang State University, Semarang, Indonesia

Agung Wiyanto
Faculty of Economics, Semarang State University, Semarang, Indonesia

Abstract: Educational institutions require effective management of human resources in improving their performance. The attempts made to improve the quality imply that higher-education institutions need to have and develop human resources to work optimally to be creative and innovative in facing a competition. Therefore, it is necessary to conduct a study on the strategy for developing the capacity and competence of lecturers as human resources in Universitas Negeri Semarang through the design of a blue print. This study aims to develop a policy scheme for developing the capacity and competence of lecturers at the State University of Semarang. This study used quantitative and qualitative descriptive approaches. The primary data in this study were obtained through field surveys (in-depth interviews) and Focus Group Discussions (FGD). The secondary data in this study were collected from literature studies involving journals, daily reports, publications from government agencies, and others. The results of the classification of the elements of the competency development strategy and the expertise of lecturers in supporting the acceleration of UNNES as a become a legal-entity higher education institution consist of 15 criteria and produce 8 policy levels. The element of realizing careful selection in lecturer recruitment (A1) and supervision in improving competence (A3) are located at the first level. The classification of policy elements to improve the competence of lecturer's expertise can be classified into four sectors. The sector III Linkage) has the most elements. The elements in this sector have a large driving force but also have a large dependence on other elements.
Keywords: Blueprint, UNNES as a Legal-Entity Higher Education Institution

Independence and Freedom in the Curriculum of Indonesia: Refocusing the Revival of Education in Indonesia

Tri Joko Raharjo
Faculty of Education, Semarang State University, Semarang, Indonesia

Abstract: Currently in Indonesia, three curricula are being implemented at the primary and secondary education levels: the 2013 Curriculum, the Simplified 2013 Curriculum, and the Independent Curriculum. The three curricula were developed to achieve the same educational goals concerning the National Education System which: "National education aims to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation's life, aiming to develop the potential of students to become human beings who believe and fear God Almighty, have good morals, noble, healthy, knowledgeable, capable, creative, independent, and become a democratic and responsible citizen". This paper analyzes the compatibility of the meaning of "independence" with the spirit of the rise of education at the beginning of the independence period of the Republic of Indonesia which was promoted by Ki Hajar Dewantara, the national hero of Indonesia. Freedom to learn is not "free", but "independence" that directs the goals, methods and learning outcomes. Freedom to learn is not a

jargon but a learning concept that builds self-awareness to learn independently which is free from pressure by remaining committed to the goal and always reflecting.

Keywords: Independent Curriculum, Independent Learning, Independent School

Communication Competence or Language Proficiency for Employability? An Investigation into Malaysian Polytechnics' Esl Engineering Students

Ling Ling Chong

General Studies Department, Port Dickson Polytechnic, Negeri Sembilan, Malaysia

Abstract: Malaysian polytechnic issues concerning language proficiency, communicative competence, and employability exist. This study examined the relationships between communicative competence, language proficiency, and employability using descriptive analysis and inferential statistics. Pearson's Correlation determines the correlation between communication competence, language proficiency, and employability skills of Malaysian Polytechnic ESL engineering students. The total number of participants was 81 final-year engineering students. The findings revealed high positive correlations between communicative competence - "I can talk with a friend in English.") and employability skills ($r = 0.854$, $p = .031$), and language proficiency ("I can understand the English songs I listen to") and employability skills ($r = 0.887$, $p = .038$). The result is consistent with the theories. Furthermore, the result revealed that for the 81 students, communication competence, language proficiency, and employability skills are firmly and significantly correlated. Thus, it concluded that communicative competence and language proficiency are equally essential to ensure higher employability among Malaysian polytechnic ESL engineering students.

Keywords: Communicative Competence, Language Proficiency, Employability, Malaysian Polytechnic, ESL

The Development of Interactive E-Modules Using Flipbook Maker for English Structure Learning at an Indonesian University

Afrianto Daud

English Education, University of Riau, Indonesia

M. Nur Mustafa
English Education, University of Riau, Indonesia

Supriusman
English Education, University of Riau, Indonesia

Rozalinda
English Education, University of Riau, Indonesia

Zaldi Harfal
English Education, University of Riau, Indonesia

Zahra Tahirah
English Education, University of Riau, Indonesia

Ade Suryani
English Education, University of Riau, Indonesia

Abstract: This study aims to report a working in progress for developing an interactive e-module an English Structure course using the flipbook maker application to support online learning in the English Education Study Program, University of Riau, Indonesia. As part of the contents of the e-module, several video animations and interactive quizzes were first developed. The research problem is formulated as follows: How to develop learning resources in the form of animated videos and interactive quizzes as part of an interactive e-module for the English Structure course? Methodologically, the research uses a Research and Development (R&D) approach. More specifically, this study uses the ADDIE which consists of five stages, namely analyze, design, development, implement and evaluate. In this study, the researchers only reported findings until development process as the whole research process is not yet finalized. The analysis phase was carried out on aspects of curriculum analysis and available resources related to the English Structure course. The products (content) developed are animated videos and interactive quizzes which are then integrated into an electronic module (e-module) with the Flip bookmaker application. The results of the validation of media experts and materials experts of the video animations were 3.6 (very valid). Meanwhile, the interactive quiz got an average score of 3.8 (very valid). Thus, these two media are suitable for use and ready to be integrated into interactive e-modules and can be used for Pre-Intermediata Structure course in the English Education department of Universitas Riau, Indonesia.
Keywords: Research Development, Interactive E-Module, Animated Video, Interactive Quiz, Pre-Intermedia Structure, Flip Bookmaker

Student-Centered Learning Efficacy in 2U2I and WBL-Based Programs Among Participating Malaysian Higher Education Provider

Suhana Ramli
Accreditation Compliance Unit, Malaysian Qualifications Agency (MQA), Cyberjaya, Malaysia

Farkhana Binti Omar
Malaysian Qualifications Agency, MQA, Cyberjaya, Malaysia

Jasni Bin Dolah
Malaysian Science University (USM), Penang

Sarifah Noor Azian Syed Yasin
Malaysian Qualifications Agency, MQA, Cyberjaya, Malaysia

Muhammad Jafni Jusof
Accreditation Compliance Unit, Malaysian Qualifications Agency (MQA), Cyberjaya, Malaysia

Abstract: The national education system must adapt to the 21st-century paradigm change in order to produce quality graduates who are holistic, balanced, and entrepreneurially ready, as well as bright, skilled, and knowledgeable. Student-centered learning (SCL), a teaching-and-learning (TnL) method, is presently being adopted in Malaysia's higher education system in an effort to develop students' inclinations and higher thinking capacity while also revealing each individual's talents in a certain sector. In addition, 2u2i and work-based learning (WBL) study modes were established to lessen students' reliance on traditional learning by emphasizing particular industrial in-field learning and continuous learning. Although research on the acceptability level of SCL in traditional TnL covering instructors and students in class has been conducted, there is a paucity of evidence on the effectiveness of SCL incorporating industrial participants and interns inside 2u2i and WBL programmes. Thus, the purpose of this study is to determine the efficacy of SCL in 2u2i and WBL programmes among participating local higher education providers. The initial data collection procedure involved questionnaires with students from colleges that provide 2u2i and WBL programmes, as well as industry players to whom the students are currently affiliated. Based on the data analysis, the results suggest that the SCL TnL technique has a high degree of acceptance among students and industry actors, with a positive response to the learning mode. However, due to the small sample size and differences in the implementation of 2u2i and WBL programmes, the findings of this study are insufficient to formulate the actual level of effectiveness of SCL adaptation in 2U2I and WBL-based programmes, but it does show a bright potential for the advancement of this method and other possible research.
Keywords: Student-Centered Learning, 2U2I, Work-Based Learning

Economic and Educational Effects of Plagiarism in the Nigeria System

Olatunde Agbaje
Research Administration, The Vision for Teenagers Adolescents and Youths Wellbeing Initiative, Lagos, Nigeria

Akoleolu M.
Research Administration, The Vision for Teenagers Adolescents and Youths Wellbeing Initiative, Lagos, Nigeria

Rasheed M.T
Research Administration, The Vision for Teenagers Adolescents and Youths Wellbeing Initiative, Lagos, Nigeria

Abstract: This paper studies the economic and political effects of plagiarism in the Nigerian Education System as a whole. The insidious increase in the crime of copying and paste of other people's materials among students in the institution of our higher learning and even the so-called lecturers and our professors have become what should be termed as an academic corruption because of infringement on legal write-up or authorship of people who significantly embarked on research for the purpose of eye-opening justifications to bring out the effects or solutions to a particular problem of a society or organization. The perspective at which plagiarism should be looked at or into should not be limited to its effects on the part of education alone but the destructions it has inherently, apparently, tremendously, and politically caused to our economic disenchantments. The simple linear regression of plagiarism in relation to economy and operation in various transitions to our educational system has brought a lot of down-gradable effects on our political and economic status because the supposed lime-light of knowledge are those who deeply instrument plagiarism in our various institutions. The abandonment of educational work for political engagement has brought about economic destabilizations and total destruction of strategic development and policies in our education.
Keywords: Academic Corruption, Down-Gradable Effects, Infringement on Legal Write-Up, Infringement on Authorship. Economic Disenchantment and Destabilization

The Development of Students Research Skills in The Lessons of World History Through the Organization of Work with Written Sources

Yersaiyn Assanuly
Department of History of Geography and Economics, Nazarbayev Intellectual School, Chemical and Biological Direction of Kyzylorda, Kyzylorda, Kazakhstan

Zhadra Konisbayeva
Psychologist-Teacher, NIS chemical biological direction, Kyzylorda

Abstract: The paper proposes a pedagogical model of students' research skills formation in the history lessons,

which covers all the components of the educational process (goal setting, design and organization, the content of teaching aids, pedagogical efforts, teacher and student activities and diagnostics). The purpose of this work: - the development of students' research skills in through the analysis of written sources. For this work, the following methods were used: interviews, observation and collection of students work. As a result of the research lessons, through the analysis of written sources, there was an intensification of educational activities and improvement of the results of student assessment based on the results of the semester. Analysis of the written source helps to develop students' research skills, and promotes the formation of an active, creative life position. In the future, we are planning to investigate the use of elements of the analysis of written sources in each lesson, so that students learn objectively evaluate an event.
Keyword: Research Skills, Written Source

Methods Implemented to Estimate the Carbon Footprint in Educational Environments: A Systematic Review

Mirta Porras
Education Faculty, University of Cundinamarca, Colombia

Abstract: Introduction. The carbon footprint quantifies the different CO2 emissions, since there are large concentrations in the atmosphere and it is constantly increasing, in large proportion, due to various human activities. These emissions contribute to the environmental impact and can be estimated using different methods. being pertinent for this review those that are applicable to the educational context.
Objective. To carry out a review of the carbon footprint calculation methods validated in the scientific context and implemented in educational environments.
Methods. A search was carried out in the Scopus, ScienceDirect, DOAJ, Scielo databases, which yielded 6310 results, however, with inclusion and exclusion parameters, 15 scientific articles were selected between 2020 and 2022.
Results 22 tools were identified among statistical studies: multivariate regression model and demand attraction, software: CO2UNV, Carbon Calculator (SIMAP), Excel, online calculators: Simple Carbon Calculator, Clean Air Cool Planet, survey of attitudes, with criteria Quantitative 13 of them are found under the GHG Protocol, and qualitative criteria were found 9. Of the multiple methods that were found, it was evident that the literature contains a limited number of studies with very different methodologies in the collection and interpretation of data, the lack of standardization in terms of data collection, methodologies and reduction plans becomes very robust, obtaining very different results between one tool and another, which makes a valid quantitative comparison difficult, however GHG Protocol is the most used in the educational context.
Conclusions. Not enough articles were found aimed at estimating HC in high school students, in all cases, the approach was at the university level and without a standardization or unified methodology.
Keywords: Greenhouse Gases, Calculators, Quantification, Reduction

Teacher Training and Bilingualism Policies in Public Education Institutions of the Municipality of Soacha

Mary Luz Camargo Sepulveda
Faculty of Education, University of Cundinamarca, Fusagasuga, Colombia

Abstract: **Introduction**: The training of the English teacher makes it possible to identify particular ways of thinking

and acting that serve as input for teaching in bilingual education. In the public education institutions of the Municipality, a low performance of English persists within the cultural and linguistic context of the students. Objective: Analyze the training of English teachers and determine the implications in relation to the construction of the educational curriculum.
Methodology: The participating population corresponds to 23 elementary and middle school teachers. Questionnaires will be used that will allow teachers to be characterized against the most frequent problems that foreign language teachers face in teacher training (lack of financial support for postgraduate training, low pay and demotivation) and how this situation influences teaching. English. This research will use a qualitative descriptive correlational design.
Results: There are two routes regarding the training of English teachers: One linked to teacher professionalization, pedagogical innovation and research. In another direction, passive participation (nonconformity) in bilingual teaching processes. Analyzing this information, the organizations in charge of establishing the guidelines and regulations on bilingualism in the Municipality will have an input to generate a proposal for improvement at a general level. In addition, in a proactive way, the formation of academic communities that contribute to research, training and innovation in the curricular field for bilingual education can arise.
Conclusions: The success of bilingual education is not only attributed to training programs, teaching methods, the level of proficiency, but also related to aspects of teacher professional development and training.
Keywords: Pedagogy, Foreign Language, Education, Curriculum

Environmental Pedagogical Practices and their Curricular Implications in Elementary Basic Institutions of the Rural Sector in the Municipality of Fusagasugá

David Herrera
Faculty of Education, University of Cundinamarca, Fusagasugá, Colombia

Abstract: At present, it is going through environmental problems that are causing irreversible damage to the planet, depleting natural resources and leading the biodiversity lost. However, based on the agenda 2030 and their 17 sustainable development objectives with its main goal of eradicate poverty, an attempt has been made to give importance to the impact on the environment and concern for natural resources. The objective of this research is the interpretation of pedagogical practices and the understanding of the conceptions in environmental education of teachers to propose curricular guidelines that qualify environmental education in students. The methodology selected for this research proposal has a qualitative approach based on the (PAR) Participatory Action Research, making use of information collection instruments such as: 1. The questionnaire, 2. Social cartography, 3. Focus groups, and 4. Field diaries information. The study population are the teachers of the official sector and the sample of 65 primary school teachers from the rural sector is selected. The results that are expected from this research will allow us to obtain environmental and eco-pedagogical curricular guidelines for solid waste management, water care and clean air, which serve as a basis for quality transversal environmental education and the urgent need to have human beings with awareness towards sustainable development from childhood.
Keywords: Eco Pedagogy, Education, Transversality, School

Attitudes Towards Mathematics Improving through Gamification for Comprehension of Urban Footprint

Juan David Firigua
Faculty of Education, University of Cundinamarca, Colombia

Abstract: One of the concerns in the didactics of mathematics is the unfavorable attitude that students have towards this area. Attitude is related to affect, behaviors and cognitive processes, and when these are unfavorable, tend to generate anxiety and low academic performance. As a proposal to improve attitudes towards mathematics, a project arises from interdisciplinary, environmental education and pedagogical innovation through gamification for the understanding of the urban footprint with tenth grade students from public schools in the municipality of Fusagasugá, Colombia. A mixed methodology will be applied from the articulation of the pre-posttest and educational action research. Through factorial and correlational studies, the attitudes of the students will be characterized using Likert scales, from gamification for comprehension, environments will be proposed for the learning of the urban footprint, a fundamental element for the understanding of the sustainable development of cities and the strengthening of eco-citizenship. Finally, Likert scales will be used as a posttest to contrast the results and analyze changes in attitude. As a result, the understanding of urban footprint is expected to help improve students' attitudes towards mathematics, as well as to develop mathematical thinking in them. It is expected that the understanding of the urban footprint will allow the development of spaces for democratic participation in the construction of the city and that gamification for comprehension will be seen as an assertive alternative in the emotional and affective processes in the teaching of mathematics, as well as in the interdisciplinary processes with environmental education.
Keywords: Mathematics Didactics, Environmental Education, Social Psychology

Country Songs in English to Develop Effective Listening Skills among Indian Adult Learners: A study

Manas Moulic
Department of Language, Ramakrishna Mission Vivekananda Centenary College, Rahara, Kolkata, India

Dr. Somak Mondal
Department of English, West Bengal State University, Barasat, W.B., India

Abstract: Listening as a language skill is often neglected on the ground that we could hear all. But Listening is not simply hearing, it is an active process of receiving aural as well as visual stimuli attentively through ears and eyes, followed by comprehension and retention of the message or intention of the speaker and finally accomplishing the process with an appropriate response. To develop listening, we need proper and graded training and motivation to listen and learn the skill. Framing Listening task to motivate adult learners to listen to English is a challenging task. However, my recent study with country songs in English at the language classroom proved effective in developing effective listening skills among advanced learners who hardly had any prior training on listening at their secondary, higher secondary or even in graduation level. In this paper we have made a detailed discussion on the importance of listening skills and how to develop it among the advanced learner in the classroom through country

songs in English.
Keywords: Effective Listening Skills, Country Songs in English

Using Collaborative Web-Based Maps to Promote Geography Teaching and Learning

Vitor Ribeiro
Geography Department, Social Science Institute, Teachers Formation Department, School of Education of Paula Frassinetti, University of Minho, Oporto, Portugal

Rodrigues Ribeiro
Geography Department, Social Science Institute, Teachers Formation Department, School of Education of Paula Frassinetti, University of Minho, Oporto, Portugal

Abstract: Internet is still shaping society. Developments in technology are resulting in many education reforms, particularly in relation to the use of web-based maps. Yet these unprecedented developments have not been accompanied by teachers' education and practices. It is missing the bridge between traditional resources and the "digital natives" students. In Geography context, Geographic Information Systems (GIS) is being used by many sectors, particularly web mapping applications that are growing very fast. It is recognized that GIS is a powerful technology to Geography teaching and learning and to promote interdisciplinary. Effectively, more than use Information a Communication Technology (ICT), it is fundamental to work with spatial representations and dimensions. GIS can bring together both dimensions and the spread of Virtual Globes, Web based maps, Applications, Crowdsource and Volunteer GIS Mapping is a relevant teaching opportunity. Results of this study are from an application of Web Mapping in a master class of formation of primary and secondary teachers. With a long tradition in using Web Mapping technologies in teaching and learning process, this particularly case study results from a pedagogical methodology used to promote collaborative learning. Students started with the elaboration of an individual scientific paper related to a sustainability subject that contributed to the final publication of a book, and results were presented in a collaborative Story Map application. The approach motivated students to learn, enhanced creativity and promoted the use skills acquisition of integrating a Story/Web Mapping in the teaching and learning process.
Keywords: GIS, Story Map, Web map, Geography, Interdisciplinarity

Teacher Burnout in The Post-Covid Era

Gregory Vanderpyl
Faculty Department of English, American University of Sharjah Sharjah, United Arab Emirates

Abstract: According to the World Health Organization (2019), “Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions: feelings of energy depletion or exhaustion; increased mental distance from one’s job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy” (para. 3). Individuals from all occupations suffer from burn-out syndrome; teachers are not immune. Often considered to be the “brave warriors” in the effort to positively influence future generations, teachers are now, more than ever, victimized by the affliction. While burn-out syndrome is not a new reality facing teachers, post-COVID circumstances have led to an unprecedented number of teachers reporting the malady and the resulting scenario is being labeled The Mass Teacher Exodus; teachers are quitting. This paper analyzes teacher burn-out phenomenon in the post-COVID era. Various credible sources have been accessed to provide shocking statistics. Furthermore, a variety of sources have been utilized to examine causes and symptoms. Clearly, the psychological well-being of teachers is paramount to assuring the success of future generations. Thus, additional sources and perspectives of the author will be presented in order to offer potential prevention and cure mechanisms for both teachers and administrators.
Keywords: Burnout Syndrome, COVID, Causes, Cure, Prevention, Symptoms

The Contributions of British Council’s School Leadership Trainings on Overall School Leadership Practices and Improvement: The Case of Primary Schools in Gondar, Ethiopia

Marshet Girmay Endeshaw
History, University of Gondar, Ethiopia

Abstract: The purpose of this study is to investigate the contributions of British Council’s school leadership training on overall school leadership practice and improvement in selected primary schools of Gondar, Ethiopia. Six primary schools with trained principals (labelled as treatment group) have been compared with randomly selected six primary schools with untrained principals (labeled as control group) to understand if difference existed in their leadership practices. Qualitative and quantitative research approaches have been employed while conducting this study. Questionnaire, interview and document analysis were used as tools of data collection by which relevant data for the study were collected and crosschecked. All data gathered are organized, grouped and tabulated separately into their categories. The two groups of schools have been compared in terms of teachers’ views on leadership practices and improvements in the sample schools using inferential and descriptive techniques. Meanwhile, quantitative data has been collected through questionnaire was analyzed using the Man-Whitney U test. Although it is not possible to attribute all differences between school leadership practice solely to British Council leadership training, there is concrete evidence that the practice of principals in the two groups does have consistent differences. Principals in the treatment group focus on instructional activities over administration duties. Internal supervision, concern about student learning outcomes, and teaching and learning methods are some of the focus areas of this group. Teachers’ questionnaires and principals’ interviews also demonstrated differences in school leadership practices between the two groups of schools. Therefore, although it is difficult to

determine the exact extent of the impact of the British Council training, there is enough evidence to conclude that teachers in the treatment schools are better supported and more focused on teaching and learning matters. However, there is only a slight difference in other leadership behaviors such as participatory decision making, leading by example, and keeping their staff informed. Therefore, it is imperative to conclude that in-service trainings, if they are properly designed and managed, could make a difference in improving schools' practice.

What Engagement Strategies Could Support Retention of Online Learners within Higher Education?"

John Blake
Director of Online Learning, Eastern College, Melbourne, Australia

Abstract: Undertaking a content analysis comprising more than 40 books, frameworks, documents, and articles, the research objective was to discover achievable and replicable strategies for educators within tertiary education settings to support students' retention and mitigate attrition concerns for institutions. The findings invariably offered tangible surprises, with one such example being activities and resources being referred to less than emotional support, belonging, and relationships. A largely pragmatic list of 30 strategies were formed based on the repetition of usage from the authors. Additionally, an emergent pattern of unconscious bias was discovered with the more negative language used, for example 'attrition', the less strategies were suggested or offered. Reversely, when positive language was employed, documents contained a greater variety or quantity of potential solutions to engage learners and encourage student retention. In addition to the list of strategies, the three most common themes to evolve from the research were: a) Teachers have a critical role to play in all strategies identified, b) Affective strategies have more importance than psychomotor Domains of Learning, (Bloom, 1956), and c) Most, if not all strategies, are interconnected. As I embark on application to commence my Doctorate in Education, the future scope that I envisage this research identifying is similar research using data sourced from students, not (only) published academics.
Keywords: Engagement, Strategies, Support, Retention, Attrition

Engaging Content Learners through the SIOP Model. Moroccan Secondary School English Learners as a Case Study

Mohamed Hikal
Arts and Humanities, Ibn Zohr University, Agadir, Morocco

Abstract: It has been noted that ESL/EFL learners' positive engagement deeply affect their performance and academic achievement. Content learning within an ESL/EFL context requires a great amount of cognitive and affective involvement. Passive learning tends to cause learnability problems and alter the learner's mental representations about the discipline taught. The present study investigates the reliability of the Sheltered Instruction and Observation Protocol (SIOP) model and its effectiveness in maximizing learners' engagement in an EFL classroom, compared to mainstream models. Very few studies addressed the issue. In collecting data, we observed and video-recorded Biology classes. The study targeted Moroccan mixed-ability ninth graders selected by means of convenience sampling. The selected students attended mainstream and the SIOP classes. Compared to mainstream classes, a considerable number of students taught the SIOP way showed better engagement and interest in the materials taught based on pertinent observable indicators. Further analysis of the results indicates that content along with language are better delivered through SIOP. Although mainstream strategies can do well with language, there will still be shortcomings as far as content areas are concerned. Meticulously developed and framed, SIOP is a lesson delivery model to plan and deliver instructions effectively while linking language objectives to content objectives in content areas such as Mathematics, Science, History and geography and so on. SIOP is an efficient way to enable English learners to improve their academic English within the school context. Thanks to its in-built strategies, covering various stages of lesson building, SIOP proves to be an efficient way to enable English learners to improve their academic English within the school context.
Keywords: Biology, Content, EFL, Engagement, Mainstream, SIOP

Investigating the Effectiveness of Leaning Management System (E-Learning) in Student's Learning Process

Cut Manda Sari
Faculty of Education, International Islam Indonesia University, Indonesia

Abstract: Information and Communication Technology (ICT) has become the most essential in the educational field. ICT is a part of technology terminology which has many positive impacts not only in cities but also in education such as improving learning quality, enriching the effectiveness of students learning interaction, enhancing the quality of the study process, etc. The use of a Literature Review must be based on relevant studies, the quality as well as the topic. The purpose of using a Literature Review is to compare, and seek the differences and similarities, showing the gap between one finding to another's findings. Using SPSS, the findings depicted that there is a relationship between motivation and the effectiveness of LMS toward students' academic performance. The number proved by Pearson Correlation .899 Sig. 2(tailed), p=0.001 by meaning it shows a positive correlation between students' academic performance and the effectiveness of using LMS in the learning process. Stellar (an Information Services and Technology LMS for MIT), has been supporting into 972 classes, 1,244 faculty users and 8,864 student users across all five Schools. However, as the system aged, the system began to limit the extensibility and features, such as more collaboration capabilities, support learning groups, document and data management, could not be added. In my opinion, as a student who has been impacted by the use of the Learning Management System, the use of technology in education brings many positive impacts for me to accessing the sources from lecturers and getting a consultation regarding assignments.
Keywords: Information and Communication Technology (ICT), E-Learning, Learning Process

The Role of Soft Skills Training Programs and Employability in B Schools of Kerala

Pallavi Sujeev
School of Business, Manipal Academy of Higher Education, Dubai, United Arab Emirates

Abstract: The skills vital for employability is Managerial skills. The Managerial skills are the hard skills individuals attain through the academic learning experience. The non-technical skills are also referred to as soft skills or the employability skills essential in the 21st century for employability. This research is an attempt to research the growing importance of essential soft skills and the importance that soft skills have today in both institutions and the industry. There is an employability gap that exists from the skills that a fresh management recruit possesses to a corporate expectation. This employability gap is studied in B schools in Kerala and measures that are undertaken by the institutes to bridge the employability gap are studied. There are additional measures and recommendations that are discussed in the research to bridge the employability gap with innovative areas. An innovative pedagogy for soft skill training which is also an experiential form of learning to impart soft skills has been researched and analysed in the study.

Examining Digital Technology Toward Student Performance: The Role of Student Engagement

Suwito Eko Pramono
Department of History Education, Faculty of Social Science, Universitas Negeri Semarang, Indonesia

Abstract: This study was conducted to scrutinize digital technology adoption to increase learning process effectiveness and efficiency in the current era. The technology has eminent role in the learning process is to facilitate students' understanding and skills. The learning process requires the ability to operate digital technology which represented by digital skills and the ability to collaborate in the classroom represented by digital collaboration. This study investigates the effect of digital skills and digital collaboration on student performance through student engagement. This study employs a quantitative approach to analyze the data. The research sample involved 147 students as respondents, the research context in this study is higher education institution. The results indicate that digital skills and digital collaboration influence student performance. This study also proves that student engagement mediates the effect of digital skills and digital collaboration on student performance. The research implication is the need to improve students' digital skills and collaborative activities during the learning process; therefore, digital skill and collaboration have an important role in determining student performance.
Keywords: Digital Skill, Digital Collaboration, Student Engagement, Student Performance

Design and Apply a Scale of Competence to Apply Interdisciplinary Integrated Knowledge into Practice for Physics Pedagogical Students to Meet the New General Education Program In 2018

Thi Kiem Thu Tran
School of Education, Can Tho University, Vietnam

Abstract: Vietnam began to implement a new general education program to replace the previous one since 2018. According to the new program, the content has many topics that integrate interdisciplinary. Therefore, teachers need to be able to teach in the direction of interdisciplinary integration in order to develop students' competence. The current situation in Vietnam shows that teachers are still not confident because they do not have much interdisciplinary integrated knowledge in applying integrated knowledge into practice to the teaching process. This leads to the consequence that when they teach on topics related to real life, it will not be feasible, reducing the effectiveness of teaching in schools, and difficult to achieve the goals required by the Ministry of Education and Training. For the above reasons, universities that train pedagogical students also need to make appropriate adjustments to foster and train pedagogical students' competence of applying interdisciplinary knowledge into practice. The article presents the research results on the process of building and designing the scale, which are specific criteria to measure and evaluate the ability to apply knowledge in practice of physics pedagogical students. In addition, we also propose an illustrative example to contribute to improving the quality of training for students of Physics pedagogy.
Keywords: Competence, Interdisciplinary Integration, Scale, Students of Physics Pedagogy

An Exploration of Student Mothers' Coping Behavior in Dealing with Study Stress at UIII

Dwi Asih Prihatin
Faculty of Education, Indonesian International Islamic University, Depok, Indonesia

Abstract: This study will explore the coping behaviors employed by student-mothers pursuing master's degree-level studies at Indonesian International Islamic University (UIII). The study will involve five student-mothers with pre-school age children and below. Every student who decides to continue their studies to the Master's degree level comes from various backgrounds. Therefore, adjustments are needed to face the university environment because university programs are expected to have a positive impact on their students' development in order for them to achieve the Tridarma of Higher Education: Education and Teaching, Research and Development, and Community Service. This study applies the semi-structured interview to collect the data, which was subjected to

thematic analysis to find answers from the existing phenomenon to the two broad categories of adjustment to the university and family environment using Problem Focused Coping (PFC) and/or Emotion Focused Coping (EFC). The significance of the study will empower student-mothers with professional life skills balance in managing study stress from their dual role activities. Finally, the university environment, family members, and friends are quite influential on students' ability to manage their study stress.
Keywords: Coping Behavior, Study Stress, Self-Adjustment, Student-Mothers

Digital Technologies in Teaching Conducting

Adam Rosiński
Faculty of Arts, University of Warmia and Mazury, Olsztyn, Poland

Abstract: The paper presents various digital devices, which could be helpful to lecturers in academic institutions in the instruction of students as future conductors. It discusses select aspects of digital technology usage in conducting, beginning with the 1990s, and proposes the author's original solutions and system. The system is chiefly based on off-the-shelf devices found in many homes – a smartphone and a computer – making it economical. This removes the necessity for accounting for the cost of developing production methods of specialist equipment. Apart from the devices, a concept of specialist body-mapping software is presented, which is able to analyse movement in 3D and in real time, using synchronised images from computer and smartphone cameras as input.
Keywords: Conducting, Teaching, Academia, Digital Technology, Music

A Pragmatic Study on the Realization of Apology Strategies Performed by Moroccan EFL Learners and British Native Speakers

Fatima Zahrae Khabar
English Department, Mohammed V University, Casablanca, Morocco

Abstract: The speech act of apology has received significant attention in interlanguage pragmatics. The present study investigates the realization of apologies by Moroccan EFL undergraduate students from two educational levels: semester one (S1) and semester five (S5). Their production is compared and contrasted against the apologies elicited from British English native speakers. To this end, 40 Moroccan EFL S1 students, 40 Moroccan EFL S5 students, and 40 English native speakers filled a written discourse completion task consisting of eight hypothetical scenarios. Adopting the mixed-method approach, data was analyzed quantitatively and qualitatively using Blum-Kulka and Olshtain's (1984) taxonomy. The findings revealed some cross-cultural differences between the British and the Moroccan EFL respondents. In addition, the qualitative and statistical analysis showed that S5 students displayed less significant differences with English native speakers compared to S1 students in their use of

apology strategies. Nevertheless, the findings indicated that the educational level had a minor influence on the overall EFL learners' performance. Accordingly, this study suggests that there is a need to increase EFL learners' pragmatic competence and awareness.
Keywords: Interlanguage Pragmatics, Cross-Cultural Pragmatics, Pragmatic Competence, Pragmatic Awareness, Socio-Pragmatic Norms

The Thrust of Selected Indigenous Languages in the Acquisition, Usage, and Teaching of English Language in Nigeria

Folasade Balogun
Faculty of Arts, Adekunle Ajasin University, Akungba-Akoko, Akure, Ondo state

Abstract: This paper centers on issues and challenges associated with the acquisition of English language in a heterogenous country like Nigeria. This research will take its thrust from instances that are derived from day-to-day conversations in the market places, schools, between parent and child, children, and their playmates to highlight the thrust of various mother tongue interferences in the correct acquisition and usage of English language in Nigeria. One of the major factors that distinguishes a society from another is language. Language is interwoven with the culture of a people; hence no society can exist without language and it is a means of giving expression to every activity that goes on in society. In other words, there are indigenous expressions that accurately describe every experience that is obtainable in each society. English as a second language for Nigeria suggests that they might face some mother-tongue interference in the correct pronunciation of sounds, correct phrasal expressions, and error-free sentences. This research hopes to highlight the uniformity in the general experience of acquiring, using, and teaching the English Language and also the peculiar speech deficiencies that are peculiar to each society and to proffer a way forward which are: Teachers, students and every African who desire to attain competence should pay close attention to those areas highlighted in this research and take deliberate efforts to rise above these shortcomings and attain competence through any means possible. The paper concludes that proficiency in English language as a non-native speaker but Africans should be aware that their indigenous language holds a central position in the actualization of competence.

Strategic Marketing Practices and Firm Profitability of Selected Deposit Money Banks in Lagos State, Nigeria

Adekunle Adefemi Salako Rasaq Ajibola
Moshood Abiola Polytechnic, Federal Medical Center, Abeokuta, Nigeria

Abstract: The global performance of the banking industry in 2019 showed the industry experienced significant growth as total assets reached $124 trillion; however, in 2020, the attendant consequences of the COVID-19 pandemic, Brexit, and US-China trade war impaired the industry's performance. Similarly, the performance of Quoted Deposit Money Banks (QDMBs) in Nigeria experienced a decline in profitability suggestive of challenges associated with strategic marketing practices induced by the competitive nature of the Nigerian banking system. Hence, this study investigated the effect of strategic marketing practices on firm profitability of QDMBs in Lagos State, Nigeria. This study adopted a survey research design, and the population was 69,793 management staff of eleven QDMBs in Lagos State, Nigeria. A sample size of 531 management staff was computed using Krejcie and Morgan formula. The study adopted a stratified random sampling technique to select employees at the three management levels in the QDMBs in Lagos State, Nigeria. A validated questionnaire was used to collect data. Findings revealed that strategic marketing practices had significant effect on firm profitability (Adj.R2 = 0.373, Q1 = 0.183, $p < 0.05$). This study concluded that strategic marketing practices affects firm profitability of QDMBs in Lagos State, Nigeria. The study recommended that the management of QDMBs should ensure effective implementation of strategic marketing elements for the purpose of enhancing their profit-generation capacity.
Keywords: Strategic Marketing Practices, Banking Industry, Firm Profitability

The Learning of Motor Skills in Connection with Self-Esteem in Physical & Sport Education Psycho-Sociological approach

Sadek Smail
Institute of Sciences & Technics of Physicals & Sports Activities, University of Djilali Bounaama, Khemis Miliana, Algeria

Chafia Mohammed Belkebir
Abi Dher El Ghifari High School, Khemis-Miliana, Algeria

Abstract: The main issue of this study is to determine and elaborate the appropriate strategies that allow us master, control and adjust the performance skills of high school students. This is being done through the description, the explanation and the measuring of their self-esteem in its socio-economic context as an external factor in the relationship between learning of motor skills and self-esteem.
Keywords: learning, Motor Skills, Self- Esteem, Physical & Sport Education

What Kind of Learning Media That Lecturers and Students Want? Need Analysis on Hybrid Science Learning

Barokah Isdaryanti
Elementary School Teacher Education Department, Education Faculty, Universitas Negeri Semarang, Semarang, Indonesia

Farid Ahmadi

Elementary School Teacher Education Department, Education Faculty, Universitas Negeri Semarang, Semarang, Indonesia

Siti Nuzulia
Elementary School Teacher Education Department, Education Faculty, Universitas Negeri Semarang, Semarang, Indonesia

Indah Fajarini
Elementary School Teacher Education Department, Education Faculty, Universitas Negeri Semarang, Semarang, Indonesia

Sri Wahyuningrum
Economic Faculty, Universitas Negeri Semarang, Indonesia

Moh. Farizqo Irvan
Elementary School Teacher Education Department, Education Faculty, Universitas Negeri Semarang, Semarang, Indonesia

Abstract: The pandemic that has passed had an impact on the field of education, one of which is in hybrid science learning. This study aims to obtain information related to the learning media needed by students and lecturers in hybrid science learning. The research method applied is quantitative research with data collection techniques, namely through questionnaires. The population of this study were 120 students and 5 lecturers in the Department of Elementary School Teacher Education, Universitas Negeri Semarang. The data were analyzed using a descriptive quantitative approach. The results of the study indicate that there is a need to develop hybrid learning media in science learning. Lecturers and students agree that they need learning media that can support science learning in the form of technology-based media, contain contextual learning materials, supported by image and can present real elements. This is assessed by lecturers and students to make it easier to understand the learning material. Thus, it can be understood that the development of science learning media with the previously mentioned criteria is needed in improving students' understanding of science concepts in hybrid science learning.
Keywords: Learning Media, Hybrid, Science Learning

Philosophy

Mohan Girija
Mahatma Gandhi University, Kottayam, Kerala, India

What Is Philosophy: I offer a view of what Philosophy itself is and what it isn't. We'll start with what it isn't and attempt to dispel some common misunderstandings and misuses of the word. Philosophy is not a "Way of Life". Every person does not have his or her own "Philosophy". Philosophy is not simply a theory about something. Nor is Philosophy a belief or a wish. Philosophy is an activity: a quest after wisdom. Philosophy is an activity of thought. Philosophy is a particular unique type of thought or style of thinking. Philosophy is not to be confused with its product. What a philosopher provides is a body of philosophic thought NOT a Philosophy. A philosopher enacts a Philosophy, a quest after wisdom. Philosophy is not a picking and choosing what body of thought one would like to call one's own or would like to believe in; a choice based upon personal preferences or feelings. Philosophy is a

pursuit. One can choose to be philosophical. One can choose to be a philosopher. One can NOT choose a Philosophy. Philosophy, insofar as it may be correlated at all to a "way of Life", is a form of thinking meant to guide action or to prescribe a way of life. The philosophic way of life, if there is one, is displayed in a life in which action is held to be best directed when philosophical reflection has provided that direction; e.g., SOCRATES the paradigm of a philosopher. Philosophy is an activity of thought, a type of thinking. Philosophy is critical and comprehensive thought, the most critical and comprehensive manner of thinking which the human species has yet devised. This intellectual process includes both an analytic and synthetic mode of operation. Philosophy as a critical and comprehensive process of thought involves resolving confusion, unmasking assumptions, revealing presuppositions, distinguishing importance, testing positions, correcting distortions, looking for reasons, examining world-views and questioning conceptual frameworks. It also includes dispelling ignorance, enriching understanding, broadening experience, expanding horizons, developing imagination, controlling emotion, exploring values, fixing beliefs by rational inquiry, establishing habits of acting, widening considerations, synthesizing knowledge and questing for wisdom. Philosophy as a process function as an activity which responds to society's demand for wisdom, which is bringing together all that we know in order to obtain what we value. Viewed in this way Philosophy is part of the activity of human growth and thus an integral, essential part of the process of education. Philosophy and education have as a common goal the development of the total intellect of a person, the realization of it.

The Effectiveness of Drug Prevention Programs among Children in Malaysia Schools

Norsayyidatina Che Rozubi
Department of Counselling & Psychology, Human Development Faculty, Sultan Idris Education University, Tanjung, Malim, Malaysia

Abstract: This study aims to find out the effectiveness of drug prevention programs among children at Malaysia school. This study is divided into two phases. The first phase is a case study that uses the interview method to gather data on the effectiveness of implementing drug prevention programs in schools. The respondents for this first phase study are teachers and government anti-drug agency (AADK) officers who are involved in the implementation of the program either as chief facilitators or facilitators. For the second phase of the study, researchers have used the survey method by distributing questionnaires to the recipient subjects, who are primary school students in at-risk states who have been selected to follow the drug prevention program. The measurement tool used to collect survey data is a set of questionnaires on the effectiveness of drug prevention programs that have been developed by researchers. The overall findings of the case study show that there are two big themes that arise, namely the effectiveness of the program and the main factors of effectiveness. The results of the survey show that all the indicators of the effectiveness of the participants, namely awareness, knowledge, skills, and spirituality, have a high percentage, with percentage values of 78.0 percent, 93.4 percent, 84.2 percent, and 93.4 percent. Overall, the findings of the study show that the implementation of the drug prevention program in Malaysia schools has achieved its objectives, in addition to paying attention to the effectiveness factors as well as the obstacles and weaknesses encountered.

Keywords: Drug Prevention, Drug Prevention Program, Drugs, Children, Education

Indian History

Joy Kripa
University of Kerala, Ernakulam, Kerala, India

This is my humble presentation of Indian History:
What is the brief history of India? The history of India starts with the existence of India itself as it located in the continent of Asia, India covers 2,973,193 square kilometers of land and 314,070 square kilometers of water. Making it the 7th largest nation in the world with a total area of 3,287,263 square kilometers. Surrounded by Bhutan, Nepal, and Bangladesh to the North East, China to the North, Pakistan to the North West, and Sri Lanka on the South East coast. India is a land of ancient civilizations. India's social, economic, and cultural configurations are the products of a long process of regional expansion. Indian history begins with the birth of the Indus Valley Civilization and the coming of the Aryans. These two phases are usually described as the pre-Vedic and Vedic age. Hinduism arose in the Vedic period. The fifth-century saw the unification of India under Ashoka, who had converted to Buddhism, and it is in his reign that Buddhism spread in many parts of Asia. In the eighth century, Islam came to India for the first time and by the eleventh century had firmly established itself in India as a political force. It resulted in the formation of the Delhi Sultanate, which was finally succeeded by the Mughal Empire, under which India once again achieved a large measure of political unity. It was in the 17th century that the Europeans came to India. This coincided with the disintegration of the Mughal Empire, paving the way for regional states. In the contest for supremacy, the English emerged 'victors'. The Rebellion of 1857-58, which sought to restore Indian supremacy, was crushed; and with the subsequent crowning of Victoria as Empress of India, the incorporation of India into the empire was complete. It was followed by India's struggle for independence, which we got in the year 1947. Here is a brief timeline about the history of India:
Ancient India History: The History of India begins with the Indus Valley Civilization and the coming of the Aryans. These two phases are generally described as the pre-Vedic and Vedic periods. The earliest literary source that sheds light on India's past is the Rig Veda. It is difficult to date this work with any accuracy on the basis of tradition and ambiguous astronomical information contained in the hymns. Indus valley civilization, which flourished between 2800 BC and 1800 BC, had an advanced and flourishing economic system. The Indus valley people practiced agriculture, domesticated animals, made tools and weapons from copper, bronze, and tin and even traded with some Middle East countries.
The Indus Valley Civilization: A long time ago, in the eastern world, there rose a few civilizations. The main reasons for the rise of these urban civilizations were access to rivers, which served various functions of human beings. Along with the Mesopotamian civilization and the Egyptian civilization, rose the Indus Valley civilization spanning Northwest India and modern-day Pakistan. The largest amongst the three civilizations, the Indus Valley civilization flourished around 2600 BC, at which time agriculture in India started flourishing. The fertile Indus valley made it possible for agriculture to be carried out on a large scale. The most well-known towns of the Indus Valley in today's date are Mohenjo Daro and Harappa. Unearthing these two towns showed excavators glimpses into the richness of the

Indus Valley civilization, evidenced in ruins and things like household articles, war weapons, gold and silver ornament - and so on. The people of the Indus Valley civilization lived in well-planned towns and well-designed houses made of baked bricks. In an era of developments and prosperity, civilization, unfortunately, came to an end by around 1300 BC, mainly due to natural calamities.

Vedic Civilization: The next era that India saw was that of the Vedic civilization, flourishing along the river Saraswati, named after the Vedas, which depict the early literature of the Hindus. The two greatest epics of this period were the Ramayana and the Mahabharata, still held in great reverence by the followers of Hinduism.

Buddhist Era: Next came the Buddhist era, during the time of the Mahajanapadas which were the sixteen great powers, during the 7th and the 6th centuries BC. Prominent powers at the time were the Sakyas of Kapilavastu and the Licchavis of Vaishali. Buddha, whose original name was Siddhartha Gautam, was born in Lumbini near Kapilavastu and was the founder of Buddhism - a religion based on spiritualism. He died at the age of 80 in 480 BC but his teachings spread throughout southern and eastern Asia and are followed across the world today.

The Invasion of Alexander: When Alexander invaded India in 326 BC, he crossed the Indus River and defeated the Indian rulers in battle. Noteworthy of the Indians' attempts at war, was the use of elephants, something that the Macedonians had never seen before. Alexander then took over the lands of the defeated kings.

The Gupta Dynasty: The Gupta period has been referred to as the Golden Age of Indian history. When Chandragupt I received the gift of Pataliputra in dowry when he married the daughter of the chief of the 'Licchavis', he started to lay down the foundation of his empire, which extended from the river Ganges or the Ganga to the city of Allahabad. He ruled for 15 years and was also referred to as the 'king of kings' for his strategic conquests and the flourishing state of India.

Harshavardhana: The last of the ancient kingdoms in India was by the king Harshavardhana, who ascended the throne at Thanneshwar and Kannauj after his brother died. While successful in a few of his conquests, he eventually got defeated by the Chalukya Kingdom of Deccan India. Harshavardhana was well-known for establishing relations with the Chinese, and also for having high religious tolerance and strong administrative capabilities.

Medieval Indian History: The medieval history of India is renowned for deriving a lot of its character from Islamic kingdoms. Extending across almost three generations, medieval India included a number of kingdoms and dynasties: - The Chalukyas- The Pallavas- The Pandyas - The Rashtrakutas- The Cholas the Cholas were the most important rulers at this time, the 9th Century AD. Their kingdom covered a large part of South India, including Sri Lanka and the Maldives. While the rulers ruled bravely and carried out the annexation of multiple territories in India, the empire came to an end in the 14th Century AD with an invasion by a man named Kafur Malik. The monuments from the Chola Dynasty are still intact and are known for their rustic charm. The next major empire was that of the Mughals, preceded by a rise in Islamic rulers. The invasion of Timur was a significant point in Indian history before a Hindu revival movement called the Bhakti movement, came to be. Finally, in the 16th Century, the Mughal empire started to rise. One of the greatest empires of India, the Mughal empire was a rich and glorious one, with the whole of India united and ruled by one monarch. The Mughal Kings were Babar, Humayun, Sher Shah Suri (not a Mughal king), Akbar, Jehangir, Shah Jahan, and Aurangzeb. They were responsible for setting up efficient public administration, laying out infrastructure, and promoting the arts. A large number of monuments in India today exist from the Mughal period. The death of the last Mughal King, Aurangzeb, sowed the seeds of disintegration within India. Influencers of Islamic architecture in India, the Mughal kings are still looked back in awe.

Akbar: Emperor Akbar, also known as Akbar the Great or Jalaluddin Muhammad Akbar, was the third emperor of the Mughal Empire, after Babur and Humayun. He was the son of Nasiruddin Humayun and succeeded him as the emperor in the year 1556 when he was only 13 years old.

Shah Jahan: Shah Jahan, also known as Shahbuddin Mohammed Shah Jahan, was a Mughal Emperor who ruled in the Indian Subcontinent from 1628 to 1658. He was the fifth Mughal ruler, after Babur, Humayun, Akbar, and Jahangir. Shah Jahan succeeded the throne after revolting against his father, Jahangir.

Chhatrapati Shivaji: Chatrapati Shivaji Maharaj was the founder of the Maratha Empire in western India. He is considered to be one of the greatest warriors of his time and even today, stories of his exploits are narrated as a part of the folklore. King Shivaji used the guerrilla tactics to capture a part of, the then, dominant Mughal empire.
Modern Indian History: During the late 16th and the 17th Centuries, the European trading companies in India competed with each other ferociously. By the last quarter of the 18th Century, the English had outdone all others and established themselves as the dominant power in India. The British administered India for a period of about two centuries and brought about revolutionary changes in the social, political and economic life of the country. However, the zenith of colonisation was achieved when the British arrived in the early 1600s as traders. Capitalizing on the disintegration that existed in India after the Mughal rule, the British actively used the strategy of 'divide-and-rule' to rule over India for over 2 centuries. While the British had come in earlier, they only achieved political power in 1757 AD after the Battle of Plassey. They took a keen interest in the resources that India had to offered and have been looked back at as plunderers of India's wealth of resources - as they took cotton, spices, silk, and tea, amongst numerous other resources. While they did lay out a massive chunk of India's infrastructure, by also bringing the Indians steam engines, it is seldom looked back at as an equal relationship. The British Raj was divisive and pit Indians against one another, on the basis of religion; and also mistreated the labourers. The Indians were essentially slaves of the British rule and were working hard without any returns on their work. This, naturally, led to multiple mutinies; and prominent freedom fighters came to the forefront. Different ideologies of thought believed that there were different ways of gaining freedom; however, they all had one common goal - freedom. The British queen had asserted that the aim of the British was to help India progress - however, multiple problems arose without the consultation of Indian leaders. One important instance of this was when in the First World War, Britain launched an attack on Germany on behalf of India, even though India did not wish for that to happen; and millions of Indian soldiers were at the forefront of the British Indian Army during both the world wars - further fuelling the Indian resistance. Over a million Indian soldiers were killed in both the World Wars.

Accounting

Sunil Mary Sofiya
Kerala University, Ernakulam, Kerala, India

The Accounting Principal Board was created by the American Institute of Certified Public Accountants (AICPA) in 1959 as an authoritative body for the purpose of issuing guidelines and rules on accounting principles. The Accounting Principal Board was replaced by the Financial Accounting Standards Board (FASB) in 1973.
What is Financial Accounting? The definition of accounting through the AICPA is the art of recording classifying and summarizing in a specific manner in terms of money transactions and events, which are in part at least of financial character, and interpretation or interpreting the result thereof. In other words, an account is a summarized record of transactions affecting a person, one kind of property or one kind of expense or loss.
How Does Financial Accounting Work? The more basic definition, is an information in measurement systems that really does three things they identify, they record, and they communicate information about an organization's busi-

ness activity. So, in those three things the identify, the records, and communicates those are very important because identifying is really identifying whether you should record it then if you do need to record it then obviously you record it, and then the last piece is being able to communicate it to the end user.

Who are Users of Accounting Information? Users of accounting information generally include: •Investors (Shareholders)•Creditors (Lenders)•Government• Consumer Groups• External Auditors• Customers**.**

What are Generally Accepted Accounting Principles? Generally accepted accounting principes (GAAP) is an embodiment of rules and standards that are acceptable and practiced in the accounting industry. GAAP contains a set of accounting standards, principles, and procedures that accountants and accounting companies must follow. I can explain the clearly on getting an opportunity.

What is Debit and what is Credit? It is simple we men by debit put an entry on the debit side of an account. Now the answer is reflecting what Credit is.

What are the Types of GAAP Accounting Principles? There are four main principles of GAAP that we follow throughout all of accounting. If it doesn't follow one of these four principles, then it's really not following accounting. •Measurement Principle •Revenue Recognition Principle •Matching Principle •Full Disclosure Principle •What is the Measurement Principle? • So, the first one we're going to talk about is what's called the measurement principle. The measurement principle states that accounting information is based on actual value and not what we think it's worth, not what it's appraised for, not what it actually cost us. •So, if you purchase a piece of land for ten thousand dollars, but it's actually valued at fifteen thousand dollars at the time of purchase, and you have it still five years later and it's appreciated up to twenty-five thousand dollars, it's still going to be on your books at ten thousand dollars (the original purchase amount). •What is the Revenue Recognition Principle? •The second one is called the revenue recognition principle or rev-rec. This principle states that revenue must be recognized one when the goods and services are provided to the customer. •So, I have rendered the product or the service and at the moment expected payment to be received from the customer. This principle it's telling you when you have to recognize revenue when the product is delivered or the service rendered. •What is the Matching Principle? •The matching principle is pretty much the same as the revenue recognition principle except it's dealing with expense. This principle states that the company must record its expenses in the same period used to generate the revenue. •So, just like in the revenue recognition principle tells us when we have to recognize revenue, the matching principle tells us when we have to recognize expense. This just has to be in the same period that which we used it. •What is the Full Disclosure Principle? •The full disclosure principle states that a company must report the details behind the financial statements that would impact users' decisions. These disclosures are often found in the footnotes of the statement. •So, throughout this material, we will refer to different methods or different ways of doing things, procedures. When you're choosing what method to use, you have to state in your financial statements that this is the method I use and this is how we get the numbers or this is the percentage that I use or this is the percentage that I estimate. •You're giving everything a value. This way, the end user can see how these numbers are calculated. We want to tell everything to everyone. I conclude, I can give a thorough explanation and define the accounting theories and principles in different angles if I give an opportunity. Regards, Sunil Mary Sofiya

How Corona Changed the Way of Teaching in Academic Computer Science Education

Harald Wahl

Department of Computer Science, University of Applied Sciences Technikum Wien, Vienna, Austria

Alexander Mense
Department of Computer Science, University of Applied Sciences Technikum Wien, Vienna, Austria

Abstract: When the situation in academic education suddenly changed in 2020 due to Corona and the associated lockdown, we were forced to change the way of teaching without delay. In the Bachelor of Computer Science at the University of Applied Sciences Technikum Wien, we had to switch to online lessons immediately. Ad hoc approaches and various possibilities for the teachers in the most varied of course forms led to fast, but not entirely optimal, solutions. It was necessary to evaluate these first solutions in order to be able to improve them. Students and teachers gave feedback on their experiences, including their suggestions for improvement. The evaluations led to adjustments and improvements to online teaching. There were specifications, such as how and where the documents should be made available or how communication should take place in online teaching. Another survey then led to further corrections in order to identify and implement final potential for improvement. As a result, it has now been possible to define academic teaching at the University of Applied Sciences Technikum Wien, especially in the Bachelor of Computer Science, in order to improve the face-to-face teaching that has now been carried out again, and to be prepared for a possible forced switch to online teaching in the future.
Keywords: Corona Situation, Academic Education, Computer Science Education

Student Attitudes and Perceived Outcomes of Immersive Learning Activities

James Reardon
Department of Marketing, Monfort College of Business, University of Northern Colorado, Greeley, CO, USA

Professor Denny McCorkle
University of Northern Colorado, Greeley, CO, USA

Professor Isaac Wanasika
University of Northern Colorado, Greeley, CO, USA

Professor Joseph French
University of Northern Colorado, Greeley, CO, USA

Keywords: Immersive Learning, Student Attitudes, Perceived Outcomes
Introduction: The higher education environment faces continual challenges, primarily a) questions of value from stakeholders (e.g., parents, public, hiring companies and b) becoming more competitive. Competitors have sprung up in online learning, global universities, and with traditional community colleges offering 4-year degrees. In this competitive environment it becomes necessary for universities to distinguish themselves. In general, universities tend to focus on (1) prestige/social standing, (2) price, (3) scholastics, or (4) experiential. This research focuses on the experiential/active learning of providing academic experiences to students and how they are perceived. Literature Review: As marketing educators have advanced beyond the traditional classroom-based learning that

has relied on lectures and note-taking, experiential learning has increasingly become the norm for marketing pedagogy. In 1975, Kolb and Fry described a model of experiential learning that begins with "observations and reflections," followed by "formation of abstract concepts and generalizations," then "testing implications of concepts in new situations," and continues with "concrete experience." The idea is that you learn more by doing something, thus experiential learning. The purpose of this study is to identify some traditional and newer experiential/active learning activities and experiences that are used in business/marketing pedagogy and determine which are most beneficial from the perspective of a student. Also, we examine whether students place more value on those experiential/active learning activities that are real world or immersive learning experience.

Methodology: An exploratory survey was sent to business college students. While not intended to be wholly inclusive, but rather to capture an essence of their views of some of the major experiential/active learning activities. Seven activities were included as indicated in Table 1 below. A short description was given for each activity, but given the diversity of formats in each, students could interpret each as it related to their own experiences. For activities in which they have participated, they were further queried on the degree to which their last activity in the category was (1) a learning experience, (2) an enjoyable experience, (3) put forth their best effort, and (4) helpful in finding a future job. Each of the perceptual questions consisted of a 7-point Likert type scale.

Results: Table 1 shows the participation rates (yes/no) in each of the activity types. The last four columns indicate the perception of the students regarding learning, enjoyment, effort, and job opportunities. We should note that given the pandemic, fewer opportunities were available for students during the few years semesters for several of these activities, therefore we excluded study abroad and industry trade show participation. In general, the findings indicate that students see the most worth in attending business visits and field trips. Business simulations and student competitions were typically rated as the least valuable. However, student competitions had the highest standard deviation, indicating a disparate view among those who participated. Whereas industry certifications (e.g., Hubspot/Google) were perceived as the less enjoyable but relatively high in their ability to assist in student job prospects.

Discussion: Students had their greatest participation rates or experiences with simulations, industry certifications, and developing business plans. Their least participation rates or experiences were with field trips and student competitions. While the participation rate for guest speakers and live client proejcts was in the middle.

Business visits were among the least experienced activities but seen as the most beneficial for learning. Their required investment of time outside of class and cost is likely why fewer students participated in those highly immersive activities. The activities requiring the most effort were live client projects and business visits. Again, all of these are high immersive activities. The most beneficial for their job search were industry certifications and business visits. Again, these are high immersive activities and requiring extra efforts of outside of class time and cost. In conclusion, the greatest benefits as seen by students were found with the outside of class immersive activities. Unfortunately, these were also the activities that were least experienced by the sample of students possibly because of the extra time required to participate and perhaps the cost of participation.

Table 1: Participation and Perception in Immersive Learning Activities

Activity	***Participation Rate N=73***	***Learning μ (SD)***	***Enjoyment μ (SD)***	***Effort μ (SD)***	***Job μ (SD)***
Live Client Project	55%	5.18 (1.74)	5.30 (1.59)	5.98 (1.39)	5.38 (1.51)
Develop Business Plan	73%	5.30 (1.37)	5.17 (1.54)	5.49 (1.40)	5.38 (1.44)
Simulation	92%	4.57	4.57	5.27	4.67

		(1.56)	(1.76)	(1.31)	(1.67)
Industry Certification	62%	5.00 (1.40)	5.27 (1.17)	5.56 (1.16)	6.00 (1.00)
Student Competition	5%	4.50 (2.65)	5.00 (2.83)	5.00 (2.83)	5.00 (2.83)
Business Visit or Field Trip	10%	6.29 (0.76)	6.29 (0.76)	6.29 (0.76)	6.29 (0.76)
Guest Speaker Program	32%	5.43 (1.04)	5.59 (1.18)	5.27 (1.35)	5.14 (1.45)

How Bi-Lingual Fathers Support Their Children to Learn Languages at Home

Manjie Zhu
School of Environment, Education and Development, The University of Manchester, Bandung, Indonesia

Abstract: This research examines how bilingual fathers help their children to acquire languages. The article concludes with in-depth semi-structured interviews with six multilingual dads from the University of Manchester, which confirms the previous studies and importance of fathers in children's home language teaching, also, it explains the factors that hinder the father's language teaching and the benefits of the father's language teaching to the children. Finally, it is worth noting that this article has four intriguing discoveries. Initially, not all fathers are absent from their children's schooling. In other homes, the father who is a university professor highly worried about the child's family studies and has also become an excellent language instructor for children. Second, the advancement of the Internet and contemporary technology has given dads new language instruction tools for home education, particularly during the COVID-19 pandemic. Furthermore, the two most significant challenges in language instruction are a lack of social support resources and multilingual language schools. Finally, parents' language types and children's age are important factors influencing family language strategy choices and the design of acquisition-learning activities.
Keyword: Fatherhood, Language-Learning, Family-Education
Types of participants: Six multilingual dads from the University of Manchester served as interviewers for this study. Turkish (father A and C), English (father B), Omani (father D), and Cantonese (father E) are the second foreign languages they teach their children. It is worth mentioning that because these six multilingual dads are all professors at the University of Manchester, they have a better education and a higher income, and more time to spend with their children, which create advantageous conditions for them to actively engage in the language education of their family children and to reflect on the family.
The Role of Father in Family Language Teaching: The Economist indicated that dads' time and effect in family parenting were considerably lower than mothers', yet the author discovered in this interview that these fathers performed a stronger role in home language instruction. The following are extracts from interviews with Fathers A, C, and E. Father A said, "First and foremost, I believe I am a university professor." Because I work from home, I spend a lot of time with my children every day, especially during the epidemic. Although, to be honest, my wife has more than I do. I handle the family's cleaning and parenting duties, but I also have family talks with my children and will attend the school's parent meeting with my wife. In terms of family language learning, my children and I are studying Turkish together. My child looks up to me as a role model, and my engagement encourages him to study

more." Father C stated, "My wife and I usually spend equal time at home because we are both university professors. And I believe that because I am the only one in the family who knows Turkish, I should be the one to accompany the children to Turkey. With my children, I frequently read Turkish novels and watch Turkish movies. And I believe there is no distinction in the function of parents in language instruction in the household. The duty for the family, in my opinion, lies on both the father and the mother. and, in a more conventional sense, the mother stays at home. As a result, they have more time to spend with children, allowing them to transmit languages. That is why it is referred to as a mother tongue bite; I refer to it as a first language bite. From my perspective, I spend more time with my children than his mother, maybe due to the circumstances, and it is sometimes a work time. As a result, anybody who has lived with a child knows how vital language is." Father E expressed, "Because I am a Chinese teacher, I not only have adequate time to spend with my children, but I am also the primary instructor of their language acquisition. I let my children read traditional Chinese novels with me when they were small. I bought Chinese textbooks when I was a bit older to teach kids Chinese at home. Of course, my wife and I are more concerned with their children's physical and mental health than with their academic performance, so I frequently engage in outdoor activities with them and converse with them."

Discussion: The author believes that the subject of the father's position at home in this interview is insightful and worth considering. Their perspectives support some of the prior research's findings, but they also offer a fresh take on the subject.

Similarity: ANNICK discovered no difference in the responsibilities of men and mothers in home language instruction after completing the in-depth research of 1899 bilingual homes. There is a significant difference in language ability between children raised in two-parent households, but there is practically no difference in language ability between children raised in two-parent families, regardless of whether the parents are men or women. As a result, Biblarz (2010) argues that the most significant factor in family education is the number difference rather than the gender difference. Father B's point of view in this interview is likewise in line with this discovery.

New points: The author discovered that the five dads who took part in this interview are not only excellent at participating in family parent-child education, but that some fathers are the primary instructors of their children's language. They also have their in-depth thoughts and distinct perspectives on family rearing. Many prior studies found that fathers were not good at parenting, such as dads' clumsiness in family parenting, fathers' refusal to participate in family parenting Jamie (2021). However, in this interviews, six fathers are all actively engaged in family education. And when asked why they have enough time to follow and engage in their children's upbringing, dads responded that they are university professors, and their working hours and educational level provide them with the energy and capacity to teach home language.

Acquisition-Learning Theory in Family Language Teaching: Krashen's acquisition and learning theory is frequently utilised in the teaching of second languages. Based on his father's family language teaching activities in this interview, the author categorizes the respondents into second language acquisition based on the various methods of home language teaching. The two teams of the father who received the theory and the father who accepted the theory of second language learning attempted to investigate why they selected different language teaching techniques.

Acquisition: Among the interviewers in this study, there are three fathers who have adopted the acquisition theory to teach the second language at home. They are father B, second language English, father C, second language Turkish father D, second language Oman, father E, second language Cantonese. The following are the interview clips from these three fathers. Father B said, " I like teaching my children English in real-life settings. For example, I might take my two-year-old daughter to the store and converse with her in English. For instance, I may pick up a potato and place it in her hand. Then I told her that we needed to get a potato, and she would learn my pronunciation and pronounce potato in English. In addition, I will drive her to school. In the car, I'll point to whatever we see and tell her, "See here, there's a green car," in English. Today's weather is pleasant. We'll also play rhyming games like "There was an elderly lady who lived in a shoe." She was at a loss for what to do because she had so

many children. My children and I enjoy this game a lot, and I've found it to be a really effective method of second language acquisition." Father C replied, "I discovered that composing tales in Turkish is a really good method to nurture my child's skill and imagination to utilise the Turkish language, therefore I will frequently read stories to him in Turkish, and then we will use the words in it to create many new stories together,". Story. I also send text messages to my child in Turkish and request that he respond in Turkish. I think this is a good way to exercise his Turkish writing skills." Father D expressed, "I'll convince myself that I'm not intentionally teaching my child Omani; I'm just interacting with him in Omani. As a result, I exclusively teach him Omani traditional songs before bedtime on Oman's National Day. During supper, tell him Omani stories and discuss noteworthy events that occurred in Oman today. When your kid is small, use these simple and enjoyable methods to touch and perceive Oman." Father E said, "I am a Chinese instructor. Since they were small, my children have copied me by doing calligraphy and reading Chinese novels. Every day since they began to learn to read, I have read Chinese traditional literature aloud to them. I don't expect kids to understand or recite these novels. I just want them to feel the power of Chinese and create an environment for them to immerse themselves in Chinese."

Learning: Four fathers in this interview employed learning theory to teaching their children a second language. They are father A, who speaks Turkish as a second language, father B, who speaks English as a second language, and father D, who speaks English as a second language. Omani language the following is a summary of what they learnt and taught. Father A stated, "Because my kid and I expect that he will achieve A-level scores in the British academic level test, I enrolled my child in Turkish online courses during the pandemic." This course meets once a week. Last time, I worked for 90 minutes at a time. This course contains tight course arrangements and assessments of learning achievements, as well as homework that corresponds to the course topic after class. My youngster believes that this training has significantly enhanced his Turkish language skills." Father B expressed, "Because my eldest kid is studying in the United Kingdom and my youngest son is studying in London, their teachers and homework must be completed in English. As a result, they must get an A-level. It is necessary to learn English proficiently." Father C said, "I enrolled my children in online Omani classes during the pandemic because one-on-one tuition helps them to study Omani more specifically."

Discussion: By comparing this interview to previous studies, the author discovered that many of the activities used by the father in home language teaching in this interview are consistent with the acquisition-learning theory, but in the new social context, many fathers' practises have also brought a new discovery to the author.

Similarity: Many of my father's ideas in this interview confirm the beliefs of acquisition-learning theory. First and foremost, this idea holds that language acquisition happens throughout the early phases of a child's learning. It does not place emphasis on the outcomes of children's language learning, but rather on the creation of a language learning environment for children (Gong,2021). Many dads mentioned in this interview that they build a linguistic environment for their children through family reading, everyday talks, and so on, so that children may come into touch with and utilise a second language organically. Second, Krashen argued that acquisition and learning may be utilised concurrently in children's second language instruction. Both exist independently and encourage one another, therefore boosting learners' total language ability. The presentation of the preceding conversation reveals that two dads utilised a mix of acquisition and learning to increase their children's vocabulary via acquisition and enhance their children's ability to use language through learning. Finally, according to acquisition-learning theory, the technique of acquisition and learning is connected to the child's age and motivation to learn the language. This interview also shows that dads mostly utilise learning techniques when their children are small, but as children get older and their cognition and comprehension abilities increase, fathers will offer learning methods.

New points: Based on the substance of the interview and the literature study, the author found certain perspectives that had received less attention in prior studies. For starters, the advancement of contemporary technology and the Internet has opened up new avenues for the actual application of acquisition-learning theory. This benefit was especially noticeable during the COVID-19 epidemic. During the epidemic, the two dads contacted said they enrolled their children in an online second language study course. This training not only broke through geographical barriers, but it also enabled them to Youngsters can encounter native language speakers online, and

online education methods give children more concentrated and expert guidance, resulting in more advanced language acquisition. Furthermore, a father said that utilising mobile phone text messages to converse and train with children is an excellent way of learning a language. Second, the techniques used by fathers to teach their children languages are connected to their motivation to allow their children to learn languages. Last but not least, dads who simply want their children to maintain their father's identity will favour the theory of acquisition, but fathers who want their children to excel academically would favour the theory of acquisition.

Barriers in family language teaching: Based on previous research and this interview, the author discovered that, while social progress and the development of educational theories have provided fathers with more opportunities and conveniences for second language teaching at home, there are still some obstacles for fathers in home language teaching, and these obstacles are primarily related to three factors: school, media, social School: It is often assumed that school is the starting point for children's formal language learning. The cooperative effort of school and home is a significant motivation for children to learn a language properly. But, to my surprise, four of the five dads highlighted the negative effect of school when discussing issues that impede home language instruction. The following are the perspectives of Fathers A, B, C, and D on the questioning problem. Father A said, “My kid had a really poor experience studying Turkish at school, which also made him feel bored to learn Turkish,”. It was a national holiday in Turkey that day, and their Turkish instructor spent an hour and a half asking the kids to retell a historical narrative about a Turkish hero. My children began to dislike this learning since the teacher talked too much. Because he believes the teacher believes he is Turkish, but he believes he is an international person. He is not required to worship this hero in the manner of a Turk. Another issue is the scarcity of Turkish language schools.” Father B expressed, "I believe that bias among school instructors is a significant impediment,". When my children study languages in Australian schools, their teachers dislike pupils who are not Australian citizens. This frustrates my children and makes them unwilling to study languages.” Father C stated, " I believe the education system is not accommodating enough to bilingual youngsters. Bilingual or trilingual kids should be encouraged at school to learn another language. Schools should provide children with the opportunity to improve their language abilities.” Father D said, " I believe that the school's big class size does not give adequate language support and special attention to multilingual youngsters like my child. This makes it difficult for my youngster to learn languages.” The Society: Three dads noted social barriers in this interview, which are mostly expressed in societal language bias and a lack of social language support tools. The opinions of fathers A, C, and We are as follows: It is essential to note that the two dads whose second language is Turkish both cited the same societal barriers; thus, the author merged their perspectives. Fathers A and C complained, "I believe that one of the most difficult challenges I have in teaching my children Turkish is societal linguistic bias." People will categorise the language as high level or low level. People will appreciate you if you can speak high-level languages like Spanish or French, but if your second language is Turkish, they will believe that studying this language is pointless.” Father D suggested, " I believe that the resources offered by British society for youngsters to study Chinese are insufficient. I surveyed nearly all of Manchester's Chinese schools. It's unfortunate that none of the Chinese schools has a library. Second, there are not only extremely few resources on the market that are appropriate for Chinese children to learn Chinese, but many of them are out of date and include unprofessional content. When browsing for home teaching resources, this makes me nervous.” Media: According to Yan (2019), while the media extends and enhances home language instruction in today's Internet age, it also introduces certain negative impacts. In this conversation, Fathers A and D discussed the harmful impact of the media on home language instruction. The following is the content of the dads' interview. Father A stated, "My youngster enjoys using technological equipment. He spends a lot of time on the computer or playing video games. This should be an excellent opportunity to study a foreign language, but did you know? Even in Turkey, nearly everything online is in English, and there are almost no Turkish video game versions. This compels my children to spend the majority of their time speaking English, which is not beneficial to learning Turkish.” Father C described, "I despise the impact of social media on my children's language acquisition because I learned that my children would make some friends online who will teach my children some poor terminology, and I don't like some types of Omanis on the Internet. I despise the impact of social media on my child's language acquisition since he

will pick up some terrible terminology from his pals. In addition, I dislike certain internet speakers that utilise Omani."

Form Discussion: Based on the interview results and comparisons with prior research, the author discovered that some of my dads' opinions are compatible with the findings of many experts, but fathers also gave some intriguing ideas.

Similarity: First and foremost, some professors think that a family's second language would be influenced by societal attitudes about language. Those who study high-level languages look up to those who study low-level languages, while those who study low-level languages look down on those who study high-level languages. In this conversation, two fathers who taught their children Turkish discussed how society's bias against Turkish language learners affected their home language education. Second, Catherine (2019) claimed there is a contradiction between the school's emphasis on mainstream languages and minority languages. Three dads stated in this interview that the school did not sufficiently respect multilingual children and did not give them enough assistance and opportunity to learn minority languages. However, they feel that today's culture and education are becoming more internationalized, and that language instruction for bilingual and even multilingual youngsters should be prioritized.

New points: Initially, many dads worry about a lack of social language support tools as well as unprofessionalism. They noted that it is quite difficult to get children's books in some languages, such as Chinese and Turkish, in the United Kingdom. They are always so many that I have to acquire a large number of language study books on my trips back to my homeland and bring them back to the UK. Updating the instructional content is a time-consuming and challenging task. Secondly, the Internet's predilection for mainstream languages makes it impossible for certain minority language users to utilise their native language on the Internet, and it also inhibits many minority language learners from utilising the minority language on the Internet. This research encourages dads, family members, schools, and even society to pay attention to the role of fathers in parent-child language teaching in the family and offers new perspectives on the issue of fathers' home language teaching.

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Experiences and Views of Foundation Phase Teachers when Teaching English First Additional Language in Rural Schools

Rendani Mercy Makhwathana

Early Childhood Education, University of Venda, Thohoyandou, South Africa

Abstract: This paper intends to explore the experiences and views of Foundation Phase teachers when teaching English First Additional Language in rural public schools. Teachers all over the world are pillars of any education system. Consequently, any education transformation should start with teachers as critical role players in the education system. As a result, teachers' experiences and views are worth consideration, for they impact learners' learning and the well-being of education in general. An exploratory qualitative approach with the use of phenomenological research design was used in this paper. The population for this paper comprised all Foundation Phase teachers in the district. A purposive sampling technique was used to select a sample of 15 Foundation Phase teachers from five rural-based schools. Data were collected through classroom observation and individual face-to-face interviews. Data were categorised, analysed, and interpreted. The findings revealed that from time-to-time teachers experience challenging situations, ranging from learners' low participation in classrooms to a lack of resources. This paper recommends the provision of relevant resources and support to teachers so that they could effectively teach English First Additional Language.

Promoting Constructivist Learning Environment Ideas or Principles in Chemistry

Motshidisi Lekhu
Department of Mathematics, Science and Technology Education, Faculty of Humanities, Central University of Technology, Free State, South Africa

Sheila N. Matoti
Central university of Technology, Free State

Abstract: When looking at the transition from high school to university education and the barriers that students face in such a transition, we should take cognizance of, and address the different cultures and backgrounds that are at play. This exploratory case study assessed and correlated pre-service students' perceived barriers to learning and their self-efficacy beliefs in dealing with the barriers. A convenience sample of 46 participants: 28 females and 18 males, answered a questionnaire measuring perceived education barriers and academic self-efficacy, respectively, on identical tasks categorized into five domains, namely, financial issues; academic ability; family related issues; separation/anxiety and discrimination. The overall mean scores for the two scales were 1.873 and 1.747, respectively. The financial issue ranked high both as a perceived education barrier as well as the perceived difficulty to deal with. Other issues of note were perceived under-preparedness for the course, a lack of support from lecturers, support staff, parents and friends. The paper argues that for quality education to be achieved, the pre-service students, especially first year students need information about financial assistance, preferably while still at high school. Furthermore, they need emotional as well as social support.
Keywords: Academic Support, Educational Barriers, Financial Assistance, Self-Efficacy Beliefs

Overcoming the Challenges and Maximizing the Benefits of Online Learning: Teachers' Perspectives

Andreas Winardi
English Language Education Department, Universitas Kristen Duta Wacana, Yogyakarta, Indonesia

Abstract: This research aimed to investigate the challenges and benefits of online learning. A survey regarding the issues were distributed to the English lecturers teaching at a Language Center of a private university in Yogyakarta

through emails. Seven teachers were willing to participate in this study. In addition to survey, the researcher employed indirect observations to collect the data. Fortunately, the head of the Language Center asked the researcher to be one of the observers of the online teaching-learning process. The researcher watched four teaching videos sent by the Language Center; then gave comments, feedbacks, and suggestions. The results of the study showed that there were some issues concerning challenges of conducting online learning, namely bad internet connection, lack of students' engagement, and a significant decrease in students' learning motivation. Some strategies that could be used to overcome the challenges among others were conducted asynchronous meeting, encouraged students to participate actively by answering questions and giving opinions in the breakout rooms, and used gamification like kahoot, quizzis, and paddlet to maintain students' interests during the online learning. While there were some challenges of online learning, the new method of learning offered some benefits, for example, students could learn at their own pace, they could revisit the materials by watching the recorded lessons, and they could learn without walls which means they could learn and interact with anyone from all over the world. To maximize these benefits, lecturers should encourage their students to be independent and autonomous learners.
Keywords: Online Learning, Challenges, Benefits

Teaching Profession and Professional, Economic, Social Statuses of Teachers: Insights from Qatari Community

Nasser Al Rawahi
Physical Education Department, College of Education, Qatar University, Qatar

Senaid Almarri
Physical Education Department, College of Education, Qatar University, Qatar

Mohmmed Al-Breiki
Physical Education Department, College of Education, Qatar University, Qatar

Abstract: Perceptions of the teaching profession, teacher's competence, and social status of teachers are debatable topics that are usually discussed by teaching profession consultants and by community members. Positive perceptions of these topics enhance teaching profession prestige which consequently results in the rising teaching job profile and respect and appreciation for teachers. Furthermore, Studying the perception of teachers and their status in society have theoretical foundations connected to the theory of social learning, as well as to trends in shaping public opinion. Therefore, this study aims to investigate insights into teaching as a profession and the social, professional, and economic statuses of teachers from Qatari society's perspective. Combining the quantitative and qualitative approaches have been used to collect these insights. The results demonstrate that the economic status, which has been indicated by gained salary and benefits, of the teacher is satisfactory. The social status of teachers differs among the community members as some view it negatively. Hence, reasons that lead to the negative image of the Qatari teacher are presented. Some recommendations for raising and strengthening the positive view of Qatari teachers in society are listed.
Keywords: Teaching Profession, Qatari Teacher, Teacher Perception, Teacher Competence, Teacher Social Status

Paired Social Emotional Learning – 5E Approach Educational Model

Diksha Passi
Department of Education, Panjab University, Chandigarh, India

Abstract: After the pandemic, e-learning turned into an essential element of student's lives in all schools, colleges, and universities. In this marathon of time, the components of a traditional classroom learning which keeps a check on a child's holistic development are yet to be found in the online classes. There are so many pedagogical methods and strategies seen in e-learning classes today, like synchronous-asynchronous instructions, gamified learning, demonstrations, simulations, guided instructions, problem-based learning, etc. This paper will highlight a few important components of student growth that are abundant in traditional classroom learning and yet to be discovered and discussed in e-learning. This review will also showcase how social and emotional learning combined with 5 Es approach instructional model can act as a key method to overcome this lack of holistic development in e-learning.

Moving from the Pandemic and Great Resignation Impact Factors towards Creating the New Norm Transitional Strategies in Education

Bob Barrett
School of Business, American Public University, Charles Town, WV, United States

Abstract: While the Pandemic changed the lives of many people, the aftermath was one that many were as unprepared for as they were in the start of this historical global period of chaos. The impact upon the educational community and its stakeholders was notable in that a new genre of literature has now commenced and order to address what has happened and will continue to evolve. Thus, what could happen in the future and what really did happen needs to be explored? Consequently, this paper will focus on what happened to education in terms of its modus operandi, in particular the practices, processes and policies of the educational community. Further, this paper will look at the impact from the period of 2019 to 2022 as many people in various countries tried to get back to the new norm and deal with the great resignation of teacher. Finally, further investigation, or rather, exploration, examination of various resources, such as evolving blogs and social media contacts, will be considered as part of the memorialization or artifacts during this period from members or stakeholders of the educational community as an indication of what did happen.

Research On Implementing the Internal Quality Assurance System by Aun-Qa Model: The Case of a Regional University in Central Vietnam

Phuoc-Son Le
Office of Testing and Quality Assurance, University of Law, Hue University, Hue, Vietnam

Trần Thúy Hiền

University of Medicine and Pharmacy, Hue University, Dean of Faculty of Basic Science

Abstract: Importance and value of the topic: The education quality assurance strategy of Hue University, a regional university (2-level) in central Vietnam, and of its member universities for the period 2016-2020 all determine to complete the assessment of educational institutions and training programs according to the standards of the Southeast Asian University Network (AUN-QA). However, to date (2022) no member universities and training program of Hue University has completed the quality assessment according to AUN-QA standards. One of the main reasons pointed out is that the internal quality assurance system of the member universities has not been built according to the model of AUN-QA. Therefore, grasping the current status of quality assurance activities within member universities to have an overall and detailed view of this work, and at the same time, assess the responsiveness of quality assurance activities inside the universities compared with AUN-QA standards, thereby proposing solutions to improve quality assurance activities within the orientation of approaching AUN-QA standards is a very necessary and urgent to contribute to the implementation of the Hue University's strategic plan in the new period is to become the national university of Vietnam.

Research objectives: Assessing the current status of quality assurance activities within Hue University's member universities over the past time and the level of response based on the quality assessment criteria of AUN-QA, thereby proposing suitable solutions for the application of quality criteria of AUN-QA aims to promote internal quality assurance activities at Hue University, with the ultimate aim of ensuring and improving the quality of education.

Method: The authors use a combination of quantitative research methods and qualitative research methods in order to have sufficient information and authentic evidence to answer research questions and test research hypotheses. In the study, opinion polls and semi-structured interview questionnaires were used to collect information from university leaders, administrators, teachers, staff and students in order to measure and evaluate internal quality assurance activities of member universities. The design and organization of research is carried out in the form of surveys, information collection from university leaders, administrators, teachers, staff and students, document analysis, related scientific works, as a basis for analying, synthesizing and evaluating issues related to quality assurance activities of member universities.

Results: On the basis of research results on the status and response of internal quality assurance activities to AUN-QA standards, and practical implementation in member universities, the authors propose 4 solutions should be prioritized implemented at universities to promote quality assurance activities and contribute to improving the quality assurance work as well as improving the quality of training at member universities.

Conclusions and suggestions: The research have only stopped to survey the current situation and evaluate the internal quality assurance activities compared with the standards of AUN-QA, and propose some solutions to improve the quality assurance activities inside the universities without testing the feasibility of solutions. In the coming time, the research team will coordinate with some member universities of Hue University to test the proposed solutions.

Keywords: AUN-QA, Internal Quality Assurance, Vietnamese Regional University

Identifying Learning Patterns to Improve Educational Interventions in Virtual Environments: A Study of Continental University

Cesar Burga

Research Student, IOE - Education, Practice and Society, UCL, London, UK

Abstract: This article is a contribution to the understanding of learning process in virtual environments, a research field that has been expanding over the last years. Using the self-regulated learning approach as our theoretical

framework we aim to understand the different learning patterns students develop in online and blended education. After that, we show how different students learning patterns are associated to particular sociodemographic and behavioural characteristics that educational institutions should take into account to develop tailored interventions, based on empirical evidence, if they want to effectively improve students' learning outcomes, our case study is Continental University, a Peruvian university with a large experience offering virtual education (both, online and blended). We use Big Data Analytics, specifically clustering techniques, on students learning data and demonstrate that cognitive and metacognitive skills shape different learning patterns of students from both, online and blended education, supporting the Self-regulated learning approach. Then, we profile the five clusters we obtained and present the differences among them in sociodemographic and behavioural aspects. By this, we want to support the thesis that tailored interventions are the best way to improve students learning outcomes. We end our analysis naming the five clusters we obtained according to the characteristics they showed. Finally, we present the conclusions and limitations of our research and some challenges to further research.
Keywords: Self-Regulated Learning, Student Learning Patterns, Tailored Interventions

Role of the Metaphor in Achieving Sustainable Development Goals

Charbati Youssef
Faculty of Economics and Management, Soultan Moulay Slimane University, Morocco

Abstract— Metaphor has been subject to extensive analysis. The traditional account of metaphor was concerned with the semantic side, that is, the meaning of metaphor, its nature, and its challenges to the semantic theory. The contemporary account of metaphor (Lakoff and Johnson: 1980) views metaphor as a matter of thought and action and only derivatively of language. This research adopts the contemporary view of metaphor. It discusses how language through the use of metaphor shapes our views of realities and our perception of conflicting issues. This article reveals that the logic underlying conflicts is basically metaphorically constructed and therefore it is relative. It also reveals how the metaphor can be help to avoid conflicts and disunity. In other words, language can be as a tool for conflict management, which is crucial to sustainable development. The creative metaphor is an invitation to see the world anew. The metaphor is a way of seeing something as if it were something else. Metaphors act as a way of organizing perceptions and providing a framework for selecting characteristics of an object or experience by equating them with other objects or experiences that share something in common and by selecting and emphasizing certain details of the target and thus suggests implications that may not have been seen. In other words, this paper explains how we can develop creative thinking by the use of metaphor. Since creativity is crucial to sustainable development, metaphor is a serious tool to move to achieving sustainable development goals.
Index Terms— Analysis, Framework, Metaphor, Sustainable Development

Individual Differences and Elements of Inclusion: From the Children's with Specia Needs Perspective

Aleksandra Ristic
Faculty of Education, Ljubljana, Slovenia, University of Ljubljana, Ljubljana, Slovenia

Abstract - Coronavirus Disease – 2019 hit Europe in February 2020, infections took place in four waves. It left the consequences and demanded changes for the future. More than half of European countries responded quickly by declaring a state of emergency and introducing various containment measures that have had a major impact on individuals' life in recent years. Closing public lives was largely achieved by limited access and/or closing public institutions and services, including the closure of educational institutions. Teaching in classrooms converted to distance learning. In the research we used a quantitative study to analyse various factors of distance learning that influenced pupils in different segments: teachers' availability, family support, entire online conference learning, successful distance learning, time for myself, reliable sources, teachers' feedback, successful distance learning, online participation classes, motivation and teachers' communication and theoretical review of importance of digital skills, e – Learning Index, World comparison of e – Learning in the past, digital education plans for the field of Europe. We have gathered recommendations and distance learning solutions to improve learning process by strengthening teachers and create more tiered strategies for setting and achieving learning goals by the children.
Keywords: Availability of Resources, Digital Education, Digital Skills, Distance Learning, Pros and Cons

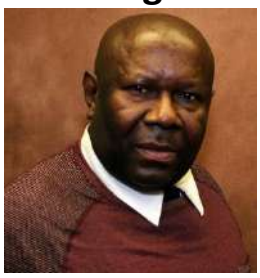
Creating the Value of Love for the Homeland to Children in Ngebuyu

Annisa Meristin
Faculty of Teacher Training and Education, University of Lampung, Bandar Lampung, Indonesia

Mamat Supriatna
Indonesia University of Education, Bandung, Indonesia

Abstract: The value of love for the homeland needs to be instilled since childhood. The value of love for the homeland is found in Ngebuyu in Kalianda District, South Lampung Regency. The purpose of this study is to instill the value of love for the homeland to children in the Ngebuyu of Lampung people. The method used is a field study with data collection techniques in the form of literature review, video analysis, and interviews. The result of this study is the value of love for the homeland that is instilled through ngebuyu in the Lampung community, Kalianda District, South Lampung Regency, Lampung Province.
Keywords: The value of love for the homeland, Ngebuyu

The Arts of Teaching Arts to Students



Lawrence Malu
Arts department, York college, New york city, United States

Inquiry question: How the students will use the arts to illustrate the homes they live in. How the students will use group arts- works to make a book, and write a poem to support it. Residency goals. To work in groups. To draw the homes, they live in. Creative elements. Theme. Understanding how we draw our homes. Knowing how to draw your homes for each of the students. Skills: Drawing a house where the students each live. Writing a poem about the house. Forming a group with one another to read the poems, loud before the classroom students. Culminating events. All the students will draw their homes and paint the house with many colour crayons. Read a poem individually before the classroom teachers and students. Example 1. A poem by the teaching artists. When I am. When I am in school, I will behave like a student. When I am at home with my parents. I will behave like a child of my parents. When it's time for me to sleep, I will go to bed, when it's time for me to eat my food, I will wake up and eat my food. When it's time for me to watch television. I will be watching the t.v till night time. When it's time for me to go to bed, I will sleep till the next day. When it's time for me, to take my bath, I will go to shower. When it's time for me to prepared for schooling, I will go to school by 7 am, From monday to Friday every week. Poem by Lawrence malu. Teaching artist, ps. 84 Ps 84, wiliamsburg n.y. The students will take each 10 minutes to draw a house and paint them with a crayon, By the end of the class I will be collecting all the drawings from the students and their poems to hand it over back to the students for the next teaching class as a lesson plan for the week ending. On the next class lesson plan, I will be asking the students to take back their poems and drawings and take a look at what they did last week in the classroom lesson plan with the teacher, What the students will learn from the classroom lesson plan, how to draw with a pencil, how to write a poem, how to paint with crayon, Use of a poetic lines and verse, Group works, how read a poem before all the students, Leadership, Cultures from others people. Respects, Responsibilities: Courtesy, how to speak before the entire students and the teachers too. How to sing a lyric from the poem writing by the students. How to listen to other students. How to do a team works. How to be professional, how to be humble How to be royal How to be humility before the teachers in any given classroom. How to use papers to draw a house How to use crayon, marker, mosaic to paint their house. How to write a poem about their house and collaboration with other students to read the poems as a partner. Rituals. I have a voice. Draw a house where you live by the students, Hands on your head, Raise your peace, P.S 84 Slogan on leadership qualities.

Virtual Reality Technology Promoted the Learning Motivation and Performance in Biochemistry Laboratory Class in the University

Fai Hang Lo
Shaw College, Chinese Univeristy of Hong Kong, Hong Kong, China

Abstract: Hands-on laboratory practice is a compulsory part of academic training for students majoring in Biochemistry. In addition to supplement the study of abstract scientific theories, such laboratory practice offers the experiential learning opportunity to practise the experimental procedures and to get familiarized with the laboratory equipment and environment. The experiential learning will not only equip the students for academic pursuit but also the development of science-related career. Nonetheless, the outbreak and persistence of COVID-19 pandemic have completely altered the conventional mode of science education; which caused the suspension of face-to-face laboratory classes that impaired the students' learning progress and academic performance. Foreseeing the tough situation, educationists and information technologists sized these challenges as opportunities to incorporate Virtual Reality (VR) technology as a novel tool to deliver classes in the metaverse. VR is a technological advancement that simulates a 3-dimensional virtual environment and brings an immersive sensation of real presence to users. Armed with 360-degree panoramic goggle and gamepads, VR enables users to perform complex tasks in pre-designed immersive scenarios. This feature perfectly suits the pedagogical needs of life sciences laboratory classes as different experimental scenarios and tasks can be incorporated into VR and allows

students' maneuver of different laboratory equipment. In this study, we developed a VR experiment resembling a clinical case to investigate the haemolytic activity of the bacterial specimens. Students were instructed to perform standardized procedures to investigate whether the patient was infected by a hemolytic bacterial strain. Students were required to state their knowledge, skills and procedures of the experiment before and after the VR experiment and evaluate their VR experience. Results showed that students demonstrated a substantial increment in the understanding of the principles and research methods such as aseptic techniques and result interpretations, after performing the VR experiment. They also displayed more esnthusiasm to perform the VR experiment, which in other words, their motivation was elevated via the VR-aided learning style. Moreover, our results also showed that they gained a more in-depth concepts and a cautious approach when performing high-risk experiment. Taken together, the VR technology is capable to enhance students' learning motivation and performance in Biochemistry laboratory classes. In the near future, more studies would be conducted to further evaluate different aspects of the use of VR technology for science education.

Using Artificial Intelligence for Language Learning- Implications for Learning toward Sustainable Development

Muhammad Hafeez
Education, ISP, Pakistan

Abstract: Due to continuous development in technology, Artificial Intelligence is playing an important role in many fields of education including language learning as this technology has the ability to provide a simulation of mental intelligence processes of human that are controlled by machines in some particular computer systems. The current systematic review of the research is concerned with the use of Artificial Intelligence in language learning. The Qualitative method of research based on content analysis was employed to review the relevant articles from different databases. Outcomes of the review of research revealed that integration of Artificial Intelligence technology in language learning improves the quality and effectiveness of language learning. The Artificial Intelligence increases the capacity and motivation of learners in language learning. The implications of Artificial Intelligence in language learning will the learning towards sustainable development.
Keywords: Artificial Intelligence, Language Learning, Systematic Review, Technology

The Relationship Between Social Capital and Work Performance: The Mediating Effect of Workplace Friendship and the Sense of Achievement

Chun Chi Hsu
Graduate Institute of Human Resource Management, National Changhua University of Education, Taiwan

Abstract: This study takes government civil servants as the research object. The main purpose is to explore the relationship among the social capital, workplace friendship, the sense of achievement and work performance. A questionnaire survey was conducted by purposive sampling, 320 copies were issued, and 315 valid questionnaires were collected. Descriptive statistics and confirmatory factor analysis（CFA） were first computed, and the results were calculated and analyzed with regression analysis. The results found that the social capital positively effect workplace friendship and the sense of achievement, and workplace friendship partial mediation work performance,

the sense of achievement complete mediation work performance. Finally, this study proposes management implications and future research based on the research results, through the good social capital can enhance workplace friendship and sense of work achievement, and then improve work performance.
Keywords : Social Capital, Workplace Friendship, The Sense of Achievement, Work Performance

Curriculum Evaluation on Mathematics Education Based on Cipp's Methods

Stevi Natalia
Mathematics Education, Christian University of Indonesia, Jakarta, Indonesia

Purba, Santri Chintia
Mathematics Education, Faculty of Teacher Trainning and Education, Universitas Kristen Indonesia, Indonesia

Situmeang, Gita Meilisa
Mathematics Education, Faculty of Teacher Trainning and Education, Universitas Kristen Indonesia, Indonesia

Abstract: The implementation of the KKNI curriculum in the Mathematics Education Study Program still has many shortcomings in its implementation. This study aims to evaluate the implementation of the KKNI curriculum in the Mathematics Education Study Program on FKIP UKI. The implementation components evaluated in this study include; (1) student background of the Mathematics Education Study Program, (2) the quality of the lecturers; (3) lecturer strategy; (4) learning facilities and infrastructure, (5) learning process, (6) assessment implementation process, (7) student learning outcomes. The evaluation model used in this study is the CIPP (Context, Input, Process, and Product) evaluation model, but in this paper only discuss about context. This evaluation is done by collecting data from each component that will be evaluated and compared with the criteria that have been previously made. The subjects in this study were the head of the study program, lecturers, and active students who were determined by purposive sampling technique. The instruments used were questionnaires, interviews, and documentation studies. The analysis used is descriptive statistics. The results in this study indicate that (1) the results of the context evaluation are 97.14% (very good category). From the overall evaluation of the implementation of the KKNI curriculum in the Mathematics Education Study Program, FKIP UKI was 82.335% which showed very good criteria.
Keywords: Evaluation, Curriculum, KKNI, CIPP

English Medium Instruction in Multilingual Context: Exploring Teachers' Ideology and Practices

Mani Ram Sharma
English Education, Tribhuvan University, Nepal

Khim Bahadur Rana
English Education, Tribhuvan University, Nepal

Abstract: This study explores the ideologies of basic level teachers regarding English medium instruction and the strategies that they use while they are in EMI classroom. Teachers' ideology has profound influence on their

classroom application. It is the ideology that determines the path of teaching-learning pedagogy in the classroom. I have described their experiences of teaching as an ideological phenomenon. Experiences help to develop one's ideology. Internationalization of English language, job market and neo-liberalism have assisted in the growth of EMI. The sample population consisted of four basic level teachers who have been teaching content subjects like Science, Social, Mathematics and Moral science in English medium. I used purposive non random sampling technique to select the sample population of the study. I employed pre and post interview and non-participatory classroom observation techniques to elicit my data. Pre- interview mainly focused on identifying the teachers' ideology regarding English medium instruction and post interview focused on how they practiced and had to practice English medium instruction. It also explored the obstacles that the teachers faced while teaching through English medium. The interviews were audio recorded with some notes. I observed the teachers' classroom practices to discover the strategies they used in teaching content subjects in English medium. When I analysed the data qualitatively using the thematic analysis approach, teachers were found to use several strategies such as: Paraphrasing, translation, code switching as strategical tools to face the challenges arise in EMI classroom. The study is of course qualitative in nature. Different codes were formulated to develop themes. The findings gained from the data interpretation showed that teachers used more mother tongue, especially Nepali language to make the text clear to the students in the classroom. Translation, code switching and sometimes paraphrasing were used as teaching pedagogies in the classroom without any certain strategy. It was rather more Nepali teaching than teaching English. It was realized that the schools had adapted English medium to stop drop out of the students not to improve English language of the students. Notably, there were inconsistencies between what the teachers said and what they practiced in their classrooms. There were very limited strategies used by the teachers to measure the quality of English language of the students. Another striking finding was students were found as passive listeners in the classroom. Very few words of assertion like 'yes' sir, and 'thank you sir' were deliberately used by them. The interaction was rare between the students and teachers. Students were assisted by writing answers of the comprehensive questions. In conclusion, the data derived from the interview highlighted that there was lack of professional training, insufficient teaching materials and trained teachers to make EMI meaningful.

Addressing the Digital Gap Through the 3A Online Instructional Model

Cristie Ann Jaca
College of Education, Cebu Technological University, Philippines

Abstract: This paper describes the development of the 3A hybrid Online Instructional Model using the Ask, Allow, and Assess Instructional Plan. This is anchored on the Constructivist Learning theory to promote active learning and to lessen the challenges experienced by both teachers and students during online classes. There were thirty BSEd English students serve as participants that transition from face to face classes to online classes. This scenario requires the creativity and flexibility of the teacher to effectively facilitate the teaching-learning process especially the use of varied learning modalities during online classes. The teacher-researcher created this 3A's Hybrid-Online Teaching Model in order to promote flexible learning among state university students who have experienced technology related limitations. 3A's represents the 3 phases of online instructional delivery namely: Ask, Allow, and Assess. The first phase, Ask, is used to get students' attention and get them into thinking for answers to essential questions in relation to the subject matter. The second phase, Allow, provides students with opportunities to discover for themselves new information from varied, available, and reliable sources. This phase is divided into two parts, namely: guided practice and independent practice. The third phase, Assess, provides assessment tasks and documents students' learning outputs as a demonstration of what they have learned. This 3 phase online teaching model is meant to maximize student learning and to affirm the teacher-researcher's advocacy that learning need not be lengthy nor complicated considering the current limited attention span among students.

Keywords: Covid-19 pandemic, online teaching, hybrid online teaching model, 3As

Successful Educators and The Perfect Class

Sorel Suarez
Faculty of languages and TOEFL preparation, UPB - Private University of Bolivia, Santa Cruz de la Sierra, Bolivia, South America

Abstract: I will be sharing some of the new pedagogical class strategies we have been implementing in Bolivian universities. They come from years of trying innovative ways to engage and integrate students into the joy of learning. These strategies come from the Bestselling book in Pedagogy called "Profe" in its original language or "Teacher". Over the years these strategies have been proven to be well suited for working with mid-schools, High schools, universities, adult capacitation, and coaching because they basically aim at human connection and high participation. There have also been groups of parents who have expressed their learning from these strategies after having put them into practice at home. They say these exercises have brought them, together with their children. The spirit of the talk is fast-paced, agile, and interesting trying to influence teachers into having High Participation in class and appreciation for the students.

Identifying the Difficulties in Learning English Language Speaking Skill for Pre-University Students

Norshahida Hassan
Institute for Advanced Studies, Universiti Malaya, Kuala Lumpur, Malaysia

Abstract: **Purpose**: In light of the conditions under which students must transition after high school and into colleges, notably pre-university, this study seeks to identify the obstacles that pre-university students have in learning speaking skills for English subjects. Since pre-university students have a lot of subjects to focus on during their academic period before entering their preferred universities, their attention on non-main subjects is limited, so it is important to understand their perceptions of continuing their education in English, especially for their speaking skill.

A Systematic Study on Improving the Effectiveness of Online Learning through a Smart Learning Dashboard (SLD) Algorithm

Shaima Alharmoodi
Faculty of School of Business and Quality Management, Hamdan Bin Mohamed Smart University,

United Arab Emirates

Nuruzzaman Faruqui
Daffodil International University, Department of Software Engineer
Daffodil Smart City, Ashulia, Dhaka

Abstract: The idea of educating students using the internet has been introduced previously. The integration into conventional education has been a laborious and time-consuming process. The epidemic caused by COVID-19 moved the process along more quickly. Traditional educational institutions such as elementary schools (also known as primary schools), high schools (also known as colleges), and universities have all made significant strides toward adopting online learning platforms as a parallel stream to offline education. This is the reason behind the attention the online education sectors have recently received. The traditional method of gaining physical education lacks a number of advantages that the self-paced online education system provides. The low Course Completion Rate (CCR) of students who complete their courses, on the other hand, diminishes the program's effectiveness. In this paper, we have analyzed the reasons for low CCR, discovered the factors that influence the CCR, and designed an innovative Smart Learning Dashboard (SLD) algorithm to increase the course completion rate.This study's findings offer vital new insights on CCR. These insights are employed in this work to develop an innovative algorithm that will improve the efficiency of the Smart Learning Dashboard (SLD) used by online learning platforms. On average, the proposed technique raises the CCR by 14.50%.
Keywords - Smart Learning, Educational Innovation, Online Learning Dashboard, Design Criteria Analysis, Course Completion Rate.

Linguistic Landscape and Cultural Globalization: A Comparative Study of Signages in a Multicultural Environment

Wilawan Champakaew
School of Liberal Arts, Mae Fah Luang University, Chiang Rai, Thailand

Nattapat Suejam
School of Liberal Arts, Mae Fah Luang University, Chiang Rai, Thailand

Maneerat Chuaychoowong
School of Liberal Arts, Mae Fah Luang University, Chiang Rai, Thailand

Abstract: This research paper has two main objectives which are 1) to study signages displayed in multicultural environments and 2) to compare and contrast the similarities and differences between the two multicultural areas. These two objectives have led to the two research questions; (1) What are the languages displayed on signages in the two multicultural areas? And, (2) what are the functions of signages found in the two multicultural areas? To answer these two questions, the researchers employed two main frameworks: types of signages by Siwina and Prasithrathsint (2020) and functions of signages by Yanhong and RungRuang (2013). The results show that the majority of language used in the Chinese temple are bilingual, monolingual, and multilingual, respectively. Besides, in the Hinduism temple, the majority of language used are monolingual, bilingual, and multilingual languages respectively. Moreover, the functions of signages found in the Chinese temple are namely, mythological (18 signages), informational (12 signages), symbolic (6 signages), requesting (2 signages), invitational (2 signages), and

instructional (2 signages). Furthermore, from the Hinduism temple, a total of seven functions found, namely, requesting (11 signages), invitational (12 signages), mythological (4 signages), ordering (3 signages), informational (2 signages), commercial (2 signages), and instructional (1 signage). Chanarnupap, S., & Tongkachok, T. (2017). Multiculturalism and Its Impacts in the Deep South of Thailand: A Case Study of the Christian Community in Pattani. Thammasat Review, 20(2), 85–102. Croucher, S. M., Zeng, C., Rahmani, D., & Sommier, M. (2017). Religion, Culture, and Communication. Oxford Research Encyclopedia of Communication. Published. https://doi.org/10.1093/acrefore/9780190228613.013.166 Hayami, Y. (2006). Redefining Otherness from Northern Thailand. Introduction: Notes Towards Debating Multiculturalism in Thailand and Beyond. Southeast Asian Studies, 44(3), 283–294. https://kyoto-seas.org/pdf/44/3/440301.pdf Hicks, D. (2002). SCOTLAND'S LINGUISTIC LANDSCAPE: THE LACK OF POLICY AND PLANNING WITH SCOTLAND'S PLACE-NAMES AND SIGNAGE. Https://Www.Linguapax.Org/Wp-Content/Uploads/2015/09/CMPL2002_T2_Hicks.Pdf. https://www.linguapax.org/wp-content/uploads/2015/09/CMPL2002_T2_Hicks.pdf Hornsby, M. (2008). The Incongruence of the Breton Linguistic Landscape for Young Speakers of Breton. Journal of Multilingual and Multicultural Development, 29(2), 127–138. https://doi.org/10.2167/jmmd538.0 Landry, R., & Bourhis, R. Y. (1997). Linguistic Landscape and Ethnolinguistic Vitality. Journal of Language and Social Psychology, 16(1), 23–49. https://doi.org/10.1177/0261927x970161002 Libretexts. (2021, February 20). 10.6F: A Multicultural Society. Social Sci LibreTexts. https://socialsci.libretexts.org/Bookshelves/Sociology/Introduction_to_Sociology/Boo

Curriculum Review from World Class University

Sri Suning Kusumawardani
Faculty of Engineering, Gadjah Mada University, Yogyakarta, Indonesia

Abstract: World-class universities are now seen as an educational institution and a critical national opportunity for branding a nation's knowledge process and status about other nations. In order to keep pace with the needs, the curriculum should be dynamic: frequently reviewed and developed. This study aims to reveal the best curriculum program studies from world-class universities using the educational case studies method. Analysis of curriculum information from the mission, PEO (Program Educational Objectives), Student Outcome, Learning Outcome, and Curriculum structure will explore the key to success behind world-class universities, which will be very useful for curriculum development and continuation for all universities.
Keywords: Educational case studies; Curriculum; Higher education; Curriculum analysis

The Challenges of Teaching Science After the Corona Pandemic from the Point of View of Science Supervisors and School Principals

Tahani Alebous
Curriculum and Instruction, World Islamic Science and Education University, Amman, Jordan

Abstract: The study aimed to identify the difficulties of teaching science after the Corona pandemic in Amman schools from the point of view of science supervisors and principals of private schools in Amman and the difficulties they face. The descriptive approach was used, where a questionnaire consisting of (16) items was developed, and its validity and stability were confirmed, and then it was distributed to the study sample consisting of (78) managers and supervisors. The results of the study showed that the difficulties faced by science teachers for the basic stage in private education schools / Amman as seen by the supervisors and principals were low, as the arithmetic mean was (1.60) and the standard deviation was (0.34). In the first rank came the field of "problems related to the

administrative system and educational supervision, with an arithmetic mean (1.64) and a standard deviation (0.39) at a low level. The last rank came in the field of "problems related to students" with an arithmetic mean (1.55) and a standard deviation (0.32) at a low level.

Czech students' interest in studying abroad and non-European mobility

Marie Prasilova
Faculty of Economics and Management, Czech University of Life Sciences, Prague, Czech Republic

Pavla Varvažovská
Faculty of Economics and Management, Czech University of Life Sciences, Prague, Czech Republic

Abstract: The contribution is devoted to the development of international student mobility in the framework of the Erasmus+ and Non-European Mobility programmes, while the focus is also on the interest and experience of students from the Faculty of Economics and Management of the Czech University of Live Sciences Prague. At work, the development of the number of students arriving and leaving in 2008-2019 and the interest in destination countries and universities are assessed using statistical methods. Based on time series models, the expected development of indicators in the coming years was predicted. The work is also based on the results of a questionnaire survey carried out on the population of students of the Faculty of Economics and Management and focused on the perception and evaluation of the programme. The survey showed that students take foreign mobility as a unique asset that will make it easier for them to find adequate employment in the future in terms of their education. For international mobility, improvements in language skills, knowledge of new cultures and the creation of foreign social connections are highly regarded.

Curriculum strategies integrated to environmental education for sustainable development in the teaching of mathematics

Monica Firigua
Faculty of Education, University of Cundimarca, Colombia

Abstract: Water is a vulnerable resource to changes that affect the life quality of a large part of the population, mitigating problems is a global need, heeding the call of the fourth Sustainable Development Goal and taking environmental education as a transversal axis and a path to transform guided practices towards sustainability. The perception of students and teachers from public and private schools in Fusagasugá will be analyzed regarding the integration of the EE for SD (Environmental education for sustainable development) for water care in the mathematics curriculum, in order to design and propose strategies that allow mitigating the problems facing the conservation of water resources and at the same time they articulate them with the mathematics teaching. A mixed methodology will be used, in a first phase with a quantitative approach through an exploratory design and using a Likert-type scale as a measurement instrument in order to characterize the perceptions of teachers and students, then through the qualitative approach with a educational action research design curricular strategies will be designed and validated through didactic sequences in order to propose their implementation to muncipality educational institutions. It is expected that the proposal pertinently articulates the EE for SD towards the care of water and the teaching of mathematics, improving the perception of teachers, students and in this way contributing to the water conservation resources in the local municipality.

Keywords: mathematical didactics; pedagogy; perception; transversality; water care

The Difficulties of Pre-Service Teacher in Classroom Management

Stevi Natalia
Mathematics Education, Christian University of Indonesia, Jakarta, Indonesia

Abstract: The implementation of the KKNI curriculum in the Mathematics Education Study Program still has many shortcomings in its implementation. This study aims to evaluate the implementation of the KKNI curriculum in the Mathematics Education Study Program on FKIP UKI. The implementation components evaluated in this study include; (1) student background of the Mathematics Education Study Program, (2) the quality of the lecturers; (3) lecturer strategy; (4) learning facilities and infrastructure, (5) learning process, (6) assessment implementation process, (7) student learning outcomes. The evaluation model used in this study is the CIPP (Context, Input, Process, and Product) evaluation model, but in this paper only discuss about context. This evaluation is done by collecting data from each component that will be evaluated and compared with the criteria that have been previously made. The subjects in this study were the head of the study program, lecturers, and active students who were determined by purposive sampling technique. The instruments used were questionnaires, interviews, and documentation studies. The analysis used is descriptive statistics. The results in this study indicate that (1) the results of the context evaluation are 97.14% (very good category). From the overall evaluation of the implementation of the KKNI curriculum in the Mathematics Education Study Program, FKIP UKI was 82.335% which showed very good criteria.
Keywords: Evaluation, Curriculum, KKNI, CIPP
Themes: Curriculum, Research and Development.

Employee Casualization and Job Commitment in the Construction Sector: The Nigeria's Experience

Otegbade Taiwo Olatunde
Department of Business Administration, Banking and Finance and General Studies, Moshood Abiola Polytechnic, Abeokuta, Nigeria

Salako Mudashiru Abiodun
Department of Banking and Finance, Moshood Abiola Polytechnic

Babalola Bola Taiwo
Department of General Studies, Moshood Abiola Polytechnic

Ayelotan Iyabode
Department of Office Technology Management, Moshood Abiola Polytechnic

Abstract: The research was carried out to examine relationship between short term employment and employee's performance in the Nigeria based foreign construction firms. The objective of the study was to measure the extent to which short term employment condition affects employee's commitment and intention to quit. The study employs a survey method. A sample of 220 temprory employees of 2 Nigerian based foreign construction firms

(CCECC and RCC) was obtained using quota sample technique. The discussion of the findings was based on primary data which was collected through a self-structured questionnaire and hypotheses using Statistical package for Social Sciences (Pearson's Correlation). The study found out that short term employment results to: unscheduled turnover in the construction firms, Low staff morale and low commitment with p-value 0.000<0.05. It is therefore recommended that a framework for better quality of work life be developed by the construction firms in order to enable employee's productivity, conducive work environment and experience that would encourage mutual benefits to themselves and the firm.
Keywords: Short term employment, Employees Commitment, Intention to Quit, Construction Firms

LISTENERS

Kehinde Akinyemi Adeleye Human Rights and Management, Ladoke Akintola University of Technology, Oyo, Nigeria ERCICTEL2213051
Fatou Bajinka Education, Kings Center for Academic Excellence, Banjul the Gambia ERCICTEL2213052
Tida Saidy Education, Nigeria International School, Banjul, The Gambia ERCICTEL2213053
Ebrima Bah Teacher, Jambanjelly Upper Basic School, Banjul, The Gambia ERCICTEL2213054
Babacar Toure Education, Nigeria International School, Banjul, The Gambia ERCICTEL2213055
Sader Jobe Education, Bundung lower basic school, Banjul, The Gambia ERCICTEL2213056
Fatou Sonko Education, Kings Center for Academic Excellence, Banjul, The Gambia ERCICTEL2213057
Sarata Ceesay School of Arts and Sciences, University of the Gambia, Banjul, The Gambia ERCICTEL2213058
Zainabou Eyanude Davies Teacher, Kings Center for Academic Excellence, Banjul, The Gambia ERCICTEL2213059
Boudour Otmane Faculty of Arts and Languages, Abou Bekr Belkaid Tlemcen, Tlemcen, Algeria ERCICTEL2213061
Omnia Fouda Ministry of Education, Al-Azer University, Cairo Egypt ERCICTEL2213063
Momodou K Jallow Teacher, Ministry of Basic & Secondary Education, Banjul, the Gambia

ERCICTEL2213064
Kenne Dzemazond Alice Solange Teacher, Ministry of Basic Education, Cameroon ERCICTEL2213065
Mahmoud Mahmoud Farag Aboudahr Technical Department, Diploma commercial, Gharbeya, Egypt ERCICTEL2213067
Shankar Kumar Mondol English, Ideal School and College, Dhaka, Bangladesh ERCICTEL2213068
Kheloud Aneis Ahmed Fadel Elkheshen Computer Labs, Modern Academy for Technology & Information, Gharbia, Egypt ERCICTEL2213074
Chinonyerem Hyacinth Ehe Managing Director, Nigerian Press Council, Garki Abuja, Nigeria ERCICTEL2213075
Steve Didier Alban Gondoyassi Daguima Business Manager, Aydin Istanbul University, Istanbul, Turkey ERCICTEL2213076
Ma. Asuncion Clara Pantaleon Guidance Office, St. Joseph School Iloilo, Incorporated, Iloilo, Philippines ERCICTEL2213078
Mehwish Ahsen Special Education, University of Bangor, Bangor, United Kingdom ERCICTEL2213079
Eric Azane Education, ST BEDES, South Africa ERCICTEL2213084
Eiman Almutairi College of Basic Education, The Public Authority for Applied Education & Training, Kuwait ERCICTEL2213085
Mohamadou Sidibe Technical Department, Fescol Insurance Broker, Gambia ERCICTEL2215053
Lamine Fofana Marketing and Communication, Capital Express Assurance Gambia Limited, Gambia ERCICTEL2215054
Osobase Emmanuel University of Nsukka, Nsukka, Nigeria ERCICTEL2215057
Malik Muhammad Shoaib Admin, Pakistan International Human Rights Organisation, Islamabad, Pakistan ERCICTEL2215058
MD Palas Khandakar Disabled Women Development Organization, Dhaka, Bangladesh ERCICTEL2215061
Oluseun Kehinde

Debbydan Victory Kids International School, Sango, Nigeria ERCICTEL2215062
Believe Efe Ogun Administrative, Middo Unique Services, Nigeria ERCICTEL2215063
Mahmoud Elshahat Faculty of Commerce, University of Mansoura, Egypt ERCICTEL2215064
Ifeoma Vania Onwumejor Public Relation Officer, Middo Unique Services, Nigeria ERCICTEL2215065
Anchal Sharma Education and English Learning, DA Organisation, Sunder Nagar, India ERCICTEL2215066
Mr. Asaduzzaman Disabled Women Development Organization, Dhaka, Bangladesh ERCICTEL2215067
Abu Khayer Sedad, Socio Economic Development Association for Organization, Dhaka, Bangladesh ERCICTEL2215068
Eryka Ihnatkova Pedagogy, Minsk State Linguistic University, Minsk, Belarus ERCICTEL2215069
Md Abdul Motaleb Sedad, Socio-Economic Development Association Organization, Dhaka, Bangladesh ERCICTEL2215070
Andrei Ihnatsiuk Institute of Economics, Belgorod State University, Belgorod, Russia ERCICTEL2215071
Garima Chandrawanshi Research Scholar of Applied Mathematics, UIT, RGPV, Bhopal, India ERCICTEL2215072
Einas Hassan Affiliation: Prime Cure Medical Center- Abu Dhabi, Uae Registration ID: ERCICTEL2214052
Gladys Asuamah Nursery Teacher, Aggrey Memorial international school, Accra, Ghana ERCICTEL2214053
Comfort Gyimah Principal, Resurrection Nursery & Preparatory School, Accra, Ghana ERCICTEL2214054
Mohamed Hafez Fofana Management & Administration, Stratford College of Management Gambia, Banjul, The Gambia ERCICTEL2214055
Dr Hoida Abdorabo Psychology, Sharjah university, sharjah, UAE ERCICTEL2214056

Mahamadou Drammeh Education, Kings Center for Academic Excellence, Banjul the Gambia ERCICTEL2214057
Nathayva Stella Mvodo Messi International Non-Governmental Organization (Ngo) (Un Ecosoc, 2014), La Brique, International Non-Governmental Organization (Ngo) (Un Ecosoc, 2014), La Brique, Cameroon ERCICTEL2214058
Mvodo Messi Nathayva Stella International Non-Governmental Organization (Ngo) (Un Ecosoc, 2014) La Brique, International Non-Governmental, Organization (Ngo) (Un Ecosoc, 2014) La Brique, Cameroon ERCICTEL2214059
Fatoumata Kassim Education, Capital fm, Banjul, Gambia ERCICTEL2214060
Adama Kuyateh Teacher, Kings Center for Academic Excellence, Banjul, The Gambia ERCICTEL2214062
Alfusainey Jabbie Education, Bundung Lower Basic School, Banjul, The Gambia ERCICTEL2214063
Muhammad Zafran AJK Winter Sport Association, Neelim Ajk, Pakistan ERCICTEL2214065
Sulayman Waggeh Teacher, Kings Center for Academic Excellence, Banjul, The Gambia ERCICTEL2214066
Fatoumata Jaria Bah Compliance Department, Easy Financial Service, Gambia ERCICTEL2214067
Abdourahman Bojang Teacher, Serrekunda Lower Basic School, Banjul the Gambia ERCICTEL2214068
Kebba Saidy Teacher, Serrekunda Lower Basic School, Banjul the Gambia ERCICTEL2214069
Kusukisa Misakila Furet Chef De Division, Union De Syndicat Des Enseignants Du Congo, Kinshasa, Rdc ERCICTEL2214070
Mbweni Masuwa Kasiala Mimi Chef De Division, Union De Syndicat Des Enseignants Du Congo, Kinshasa, Rdc ERCICTEL2214071
Wangata Toko Guelord In charge of New Information Technology, Union De Syndicat Des Enseignants Du Congo, Kinshasa, Rdc ERCICTEL2214072
Ramatoulie Baldeh Teacher, Muslim Senior Secondary School, Banjul, The Gambia ERCICTEL2214073

Richard Victor Eke Proprietor, George and Duke Nursery and Secondary School, Felele, Ibadan ERCICTEL2214075
Bushra Siddiqui Teaching, School, Lahore, Pakistan ERCICTEL2214077
Hamza Laaraj Physics and chemistry student department, University Hassan, Casablanca, Morocco ERCICTEL2214078
Oumayma Allabouch Formatrice, Allabouch Oussama Company, Meknes, Morocco ERCICTEL2214079
Younes Faiz Student counseling, Casablanca international office, Casablanca, Morocco ERCICTEL2214080
Ingrid Kameni Ndam Magap Government Primary School of Dibombary, Ministry of Basic Education, Cameroon ERCICTEL2214081
Joseph Roland Koloko Kameni Teacher, Cameroon Brewery Union, Cameroon ERCICTEL2214082
Hamza Ennaji Cultural exchange group, Media centre, Safi, Morocco ERCICTEL2214083
Fatima ezzahra Boundi Career student department, Hi-celus global, Safi, Morocco ERCICTEL2214084
Maria Chlikha Student Department, Hi-celus global, Safi, Morocco ERCICTEL2214085
Anas Jalouaja Training Department, H-Celus Global, Morocco ERCICTEL2214086
Souhaib Boulahmis Training Department, Planet Forme Club, Casablanca, Morocco ERCICTEL2214089
Rute Ackah Diplomatic Mission, Consular Services, Accra, Ghana ERCICTEL2214090
Anthony Chinaza Akwuba Universal Basic Education Board, Maryland, Lagos, Nigeria ERCICTEL2214091
Raja Afaq Ahmed Khan NGO, Muzaffarabad Poverty Alleviation Programme, Pakistan ERCICTEL2214093
Achraf Allabouch Future Teacher's Department, Hi Celus Global, Safi, Morocco

ERCICTEL2214095
Driss Moussaid Student, British Workshop, Casablanca, Morocco ERCICTEL2214096
Sampson Assorgbah Management, Yao Dzekpey Transport Services, Accra, Ghana ERCICTEL2214097
Abdul-Malik Ishaq Adult Education, Center for Inclusive Education Development, Accra, Ghana ERCICTEL2214098
Felix Kwame Nyarko Management, Center for Educational Policy and Research Analysis, Accra, Ghana ERCICTEL2214099
Fridaus Seidu Spring International School, Kumasi, Ghana ERCICTEL2214100
Mohamed Rezouk National Radio and Television Company, SNRT, Casablanca, Morocco ERCICTEL2214102
Grace Meritus Ishabaiilu Childhood Education, Paragon Primary School, Tanzania ERCICTEL2214103
Surjit Kaur Sales Manager, Collecting and Analyzing Financial, Political and Socioeconomic Data, Radisson Hotel, Himachal Pradesh, India ERCICTEL2214105
Zakaria Hacham Teaching Department, HI-Celus Global, Safi, Morocco ERCICTEL2214106
Samuel Ndoro Chairman, Board of Management, Our Lady of Fatima Secondary School, Nairobi, Kenya ERCICTEL2214107
Anthony Matheka Management, John University, Nairobi, Kenya ERCICTEL2214109
Gurpreet Singh Grewal Finance Manager, Radisson Blu, Ludhiana, India ERCICTEL2214110
Ranjeet Kaur Business Manager, Finance & Sales Department, Radisson Blu, New Delhi, India ERCICTEL2214111
Khadija Farahi Economics Department, University Hassan 2, Casablanca,Morocco ERCICTEL2214112
Thasneem Mohamed Social Science, Open University of Sri Lanka, Trincomalee, Sri Lanka ERCICTEL2214116

Misiratu K.F Ogunleye Nigeria Content & Industry Collaboration, Petroleum Technology Development Fund, Nigeria ERCICTEL2214118
Esther Prisca Ngo Hoblog Government High School Graduate and Worker, Government High School Graduate and Worker, Cameroon ERCICTEL2214145
Sleiman Aburkayek Faculty of Management and Business Administration, West University of Timisoara, Timisoara, Romania ERCICTEL2214115
Licen Liu Student of School of English and International Studies, Beijing Foreign Studies University, Beijing, China ERCICTEL2214120
Lamin Jobarteh Teacher, Kings Center for Academic Excellence, Banjul, The Gambia ERCICTEL2216051
Modou Ceesay Teacher, Kings Center for Academic Excellence, Banjul, The Gambia ERCICTEL2216052
Amadou Basirou Jallow Education, Kings Center for Academic Excellence, Banjul, The Gambia ERCICTEL2216053
Kamal Mahmood Human Development and Training, New Orientation Organization, Kurdistan Region, Sulaimaniya ERCICTEL2216056
Michael Kofi Agyemang Graab Educational Centre Primary, Kings Williams Town, South Africa ERCICTEL2216057
Elizabeth Takyima Boakye Nelson Mandela University, Summerstrand, Gqeberha, South Africa ERCICTEL2216058
Shakhnoza Khaydarova Liberal Arts and Social Sciences, ASU, Karahi, Uzbekistan ERCICTEL2216059
Dharma Paul Saraman Wat Mai Pinklew Buddhist Temple, Bangkok, Thailand ERCICTEL2216060
Brwa Mohammed Law, English Language and Literature Department, University of Sulaymaniyah, Iraq ERCICTEL2216062
Muhammad Fayyaz Khan Women Welfare Foundation, Bagh, Azad Kashmir, Pakistan ERCICTEL2216054
Grace Kisenene Tanzania Education Authority, Dar es Salaam, United Republic of Tanzania ERCICTEL2217052
Isaac Obeng Nelson Mandela University, Summerstrand, Gqeberha, South Africa

ERCICTEL2217053
Sulayman Konateh Student, Old Yundum Upper Basic & Senior Secondary School, Banjul, The Gambia ERCICTEL2218052
Babucarr Njie Student, Old Yundum Upper Basic & Senior Secondary School, Banjul, The Gambia ERCICTEL2218053
Alhagie Njie Teacher, Old Yundum Upper & Senior Secondary School, Banjul, The Gambia ERCICTEL2218054
Olawale Babatunde Oladimeji Education, Designer Hub Group Holdings, Sandton, South Africa ERCICTEL2218056
Emmanuel Paye Gonotee National Port Authority Republic of Liberia, African Methodist Episcopal Zion University, Monrovia, Liberia ERCICTEL2218057
Noreen Melisana Mubaiwa Education, Designer Hub Group Holdings, Sandton, South Africa ERCICTEL2218058
Michael T G Paykai Systems Administration, Starz University of Science and Technology, Monrovia, Liberia ERCICTEL2218059
Christian Lanwa Nkara EPST Ministry, RDC, Democratic Republic of The Congo ERCICTEL2218061
Radhiya Awadh Karama Paragon Academy, Dar es salaam, Tanzania,Africa ERCICTEL2218062
Hameed Soman Admin and Finance, Baghbaan, Islamabad, Pakistan ERCICTEL2218063
Muhammad Kamran Khan Program, Baghbaan, Islamabad, Pakistan ERCICTEL2218064
Lufuluabo Kabambi Thierry Training Officer, Permanent Office of the Educational Partnership Observatory, EPST, Kinshasa, R.D. Congo ERCICTEL2218065
Mawick Mayano Dorcas Office Attache, Permanent Office of the Educational Partnership Observatory, EPST, Kinshasa, R.D. Congo ERCICTEL2218066
Mayituka Nzomakenda Jolie Partnership Officer, Permanent Office of the Educational Partnership Observatory, Kinshasa, R.D. Congo ERCICTEL2218067
Boimbo Bosawa Patrick Monitoring and Evaluation Officer, Permanent Office of the Educational Partnership Observatory, EPST, Kinshasa, R.D. Congo ERCICTEL2218068

Sultans Jesmine College of Humanities and Social Sciences, Hamad Bin Khalifa University, Doha, Qatar ERCICTEL2218072
Suman Tamang Kumari Engineering College, Kathmandu, Nepal ERCICTEL2218073
Suraj Aslami Kumari Engineering College, Kathmandu, Nepal ERCICTEL2218074
Abubakar Abdullahi Madaki Department of General Studies, School of Business and Management Technology, The Polytechnic Bali, Taraba State, Nigeria ERCICTEL2218080
Muhammad Rizwan Khan NGO, Baghbaan, Islamabad, Pakistan Registration ID: ERCICTEL2219053
Shafqat Rehman Programs, Baghbaan, Islamabad, Pakistan ERCICTEL2219054
Sher Azam Khan NGO, Muzaffarabad Poverty Alleviation Programme, Muzaffarabad AJK, Pakistan ERCICTEL2219055
Sainey Chorr Head Teacher, Zenith Senior Secondary School, Banjul the Gambia ERCICTEL2219056
Mohamed Gamal Mohamed Youssef Khalaf Assistant Computer Labs Manager, Modern Academy for Technology & Information, Al Mahatta Square, City Center, Egypt Registration ID: ERCICTEL2219058
Khan Muhammad Kamran Program, Baghbaan, Islamabad, Pakistan ERCICTEL2219059
Ernest Asare Plumbing, Opportunities Industrialization Centre Organization, Ghana ERCICTEL2219060
Leon Cygman Bissett School of Business, Mount Royal University, Calgary, Canada ERCICTEL2219062
Tracey Caterine Faculty of English Communication, Higher Colleges of Technology, Al Ain, Abu Dhabi, UAE ERCICTEL2221052
Beevimol Assis Faculty of Social Work, Sree Sabareesa College, Mahatma Gandhi University, Kerala,India ERCICTEL2222051
Mantasha Shaikh Faculty of Science and Technology, Mathematics and Computer Science, PAI Public School, Pune, India

ERCICTEL2222054
Patrick Evbuomwan School Support Services, Universal Basic Education Board, Edo State, Nigeria ERCICTEL2223052
Baboucarr Bojang Head Teacher, Sbec International School, Banjul the Gambia ERCICTEL2223054
Fatpoumatta Drammeh Teacher, Kings Center for Academic Excellence, Banjul, Gambia ERCICTEL2223055
Haruna Camara Teacher, Kings Center Foir Academic Excellence, Banjul, Gambia ERCICTEL2223056
MD Shahidul Islam Dhaka Univerity, Dhaka, Bangladeh ERCICTEL2223060
Prof. Owunari Georgewlll Vice Chancellor, University of Port Harcourt, Rivers State, Nigeria ERCICTEL2223061
Boateng Nana Agyei Samuel Academic, Signal Media Academy, Accra, Ghana ERCICTEL2223062
Cris Alca Apevec, Apevec Onghd, Kinshasa, Democratic Republic of the Congo ERCICTEL2223064
Nathayva Stella Mvodo Messi Non-Governmental Organization, Cameroon, Country in Central Africa ERCICTEL2223065
Achraf Aharchi International Department, Likaa Hotel Training Development Center, Deroua, Morocco ERCICTEL2223066
Soukaina Abbada Student Department, Faculty of Economical Sciences, University Hassan 2, Casablanca, Morocco ERCICTEL2223067
Elmehdi Rahhali Teaching Department, Madia Centre, Casablanca, Morocco ERCICTEL2223068
Younes Ait Ahmed IT Department Service, Centre Palmier Informatique, Casablanca, Morocco ERCICTEL2223069
Ogadinma Hafuruchi

Foreign Languages and Lifelong Learning, Hafuruchi International Schools, Aba, Nigeria ERCICTEL2223070
Richlove Afful Grace International Preparatory School, Ghana ERCICTEL2223072
Richard Asante Grace International Preparatory School, Ghana ERCICTEL2223073
Jonas Boakye Akowuah Ghana Education Service, Oppong Agyare Da Primary School, Ghana ERCICTEL2223074
Emmanuel Obeng Science, Roman Catholic Junior High School, Duayaw-Nkwanta, Ghana ERCICTEL2223075
Richard Appiah Science, Sunyani Senior High School, Sunyani, Ghana ERCICTEL2223076
Christian Lanwa Nkara Ministry of EPST DRC, Kinshasa, The Democratic Republic of the Congo ERCICTEL2223077
Gerrit Rauws Education and Development of Talents, King Baudouin Foundation, Brussels, Belgium ERCICTEL2223078
Caleb Amihere Programmes and Teaching Department, Global Centre for Entrepreneurship and Leadership, Ghana ERCICTEL2223079
Alberta Mensah-Kane Teaching and Learning Department, Bethel Methodist School, Ghana ERCICTEL2223080
Ismail Idrissi Bouamrani IT Department, H-Cellus, Casablanca-Morocco ERCICTEL2223081
Hawwa'u Mai School of Education and Social Work, University of Dundee, Dundee ERCICTEL2223082
Soulaimane Belammari Faculty of Economics and Social Sciences, University of Sidi Mohamed Ben Abdellah De Fes, Fes-Morocco ERCICTEL2223083
Ismail El-Bakkali Faculty of Sciences, University Abdelmalek Essaadi, Tetouan, Morocco ERCICTEL2223084

Ali Alhassan Ascoma Ghana Limited, Ascoma, Ghana ERCICTEL2223085
Saad Kdidir Faculty of Economics, University hassan2 Casablanca, Casablanca/Morocco ERCICTEL2223086
Amine Barraq Tourism Department, Specialized Institute in Hotel and Catering Management, Casablanca/Morocco ERCICTEL2223087
Md Jabed Hossain Director, Global Visa Consultants, South Africa ERCICTEL2223088
Kihosa Katanga Horly Office Attaché, Union of Teachers Union of Congo, Kinshasa, RD Congo ERCICTEL2223089
Kambuma Kukungali Erick Nicolas New Information Technology Officer, Union of Teachers Union of Congo, Kinshasa, RD Congo ERCICTEL2223090
Mpotiyolo Yankangu Beni Head of Division, Union of Teachers Union of Congo, Kinshasa, RD Congo ERCICTEL2223091
Tshiyowa Tshibangu Marie Jeanne Office Manager, Union of Teachers Union of Congo, Kinshasa, RD Congo ERCICTEL2223092
Mr. Mumbete Maniku Marc Administrative Agent, Union of Teachers Union of Congo, Kinshasa, RD Congo ERCICTEL2223093
Kihosa Tshitamuntu Mireille Trainer, Union of Teachers Union of Congo, Kinshasa, RD Congo ERCICTEL2223094
Basana Nkoko Andre Office Manager, Union of Teachers Union of Congo, Kinshasa, RD Congo ERCICTEL2223095
Esther Prisca Ngo Hoblog Government High School Graduate and Worker., Worker and High School Graduate., Cameroon ERCICTEL2223096
Oghenevwarhe Blessing Osiokor International Language Tutor, Jobstin Energy Limited, Nigeria ERCICTEL2223059
Raja Abdul Muiz Raja Iskandar Department of International Marketing, Neuro Nadi International Berhad, Kuala Lumpur, Malaysia ERCICTEL2224074

Sarifah Noor Azian Syed Yasin Accreditation Compliance Unit, Malaysian Qualifications Agency (MQA), Cyberjaya, Selangor, Malaysia ERCICTEL2224081
Farkhana Omar Accreditation Compliance Unit, Malaysian Qualifications Agency (MQA), Cyberjaya, Malaysia ERCICTEL2224082
Mathiyalagan Ilavarasan Inodaya Inst, Inodaya, Pune, India ERCICTEL2225051
Rana Iftikhar Hassan NGO, Muzaffarabad poverty Allevation program, Pakistan ERCICTEL2225053
Hem Raj Khanal Faculty of Humanities and Social Science, Tribhuwan University, Kathmandu, Nepal ERCICTEL2225054
Hridoy Miah University of Pretoria, CNR Lynnwood Road and Roper Street, Hatfield, South Africa ERCICTEL2225058
Simeon Lee Henries Researcher, Research and Innovation Hub, Monrovia, Liberia ERCICTEL2225065
Tinku Barua Philosophy of Buddhism, Mahamakut Buddhist University, Bangkok, Thailand ERCICTEL2225066
Ernest Asare CEO, NestGet Ventures, Ghana ERCICTEL2225067
David Quami Accounting, NestGet Ventures, Ghana ERCICTEL2225068
Ajoku Edmonson Oluchi Victoria English Education, Proprietress Zest Kids School, University of Calabar, Onitsha, Anambra State, Nigeria ERCICTEL2225055
Hasana Lebbe Mohamed Fawzan Education, Principal, Amana International School, Paragahadeniya, MBA, University of Wolverhampton, Kurunegala, Sri Lanka ERCICTEL2225057
Zuhra Fatima Baghbaan, NGO, Islamabad, Pakistan ERCICTEL2226051
Soukaina Serbouti Faculty of Letters and Human Sciences, Mohammed V University, Rabat, Morocco

ERCICTEL2226055
Anees Kutty Anees Defence Career Institute, ADCI, Pune, India ERCICTEL2227051
Ika Indriani Faculty of English Letter, Pamulang University, Jakarta ERCICTEL2227052
Zhuldyz Tashkenbayeva Computer Science and Professional Education, Kazakh Agro Technical University, Astana, Kazakhstan ERCICTEL2221067
Shimba John Dar es salaam, University of Dar es salaam, Tanzania ERCICTEL2221068
Mohammed Jakan Oued Safaa High School, Ministry of Education, Morocco ERCICTEL2221071
Ahlam Fayez Alshehri The 4th Intermediate School, Saudi Ministry of Education, Taif, Saudi Arabia ERCICTEL2221073
Halah Ayyashi English Department, Jazan University, Jazan, Saudi Arabia ERCICTEL2221074
Farhan PC Faculty of AIFER Education, Kerala, India ERCICTEL2221075
Vinod Kumar Mahawar Humanities & Social Sciences, Madhav University, Rajasthan, India ERCICTEL2221077
Roya Pacha Faculty of Science, Crest Academy, London, United Kingdom ERCICTEL2221079
Daliy Ashok Education, Manipal, Dubai, UAE ERCICTEL2221080
Aliya Nurmuratova School 108, Kazakhstan ERCICTEL2221081
Delia Amoruso BVBA, Kapellaan, Kalmthout Belgium (Europe) BTW BE, Kalmthout, Belgium ERCICTEL2221072
Chinonyerem Hyacinth Ehe

Director, New Heaven Empire, Nigeria ERCICTEL2224087
Kidanie Alemu College of Natural Sciences, Wollo University, Dessie, Ethiopia ERCICTEL2224085
Mohiuddin Mohiuddin Education Service, Golden Education Service, Bangladesh ERCICTEL2223103
Loraine Anne Ruda Center of English Language Studies, Lapulapu-Cebu International College, Cebu, Philippines ERCICTEL2222062
Ashfa Ahmadh Faculty of Social Science, The Open University of Sri Lanka, Kegalle, Sri Lanka ERCICTEL2218081
Fadi Al Ghawanmeh Loria, University of Lorraine, Nancy, France ERCICTEL2218082
Maher Alhilo Music Department, University of Jordan, Amman, Jordan ERCICTEL2218083
Jane Rosel Communication, Schiller International University, Heidelberg, Germany ERCICTEL2219064
Salman Jamal Said International relation, Xavier Institute, Muqdisho, Somali ERCICTEL2223099
Vigineswaran Kunasakaran Faculty of Health and Life Sciences, Management and Science University, Shah Alam, Malaysia ERCICTEL2224088
Bayan Alahmad Computer Science, UNIKL, Kuala Lumpur, Malaysia ERCICTEL2224089
Orayir Aldossary School of Humanities, Arts and Social Sciences, University of New England, Armidale, Australia ERCICTEL2227058
Dr. Richa Sharma Department of Microbiology, Mahatma Gandhi University of Medical Sciences & Technology, Jaipur ERCICTEL2227061
Moh. Farizqo Irvan Faculty of Education, Semarang State University, Indonesia ERCICTEL2224091

Gankhuyag Tserendorj Mongolian Institute of Education &Economic, Ulaanbaatar ERCICTEL2225070
Constance Agyeiwaa Agriculture, Ejura Agriculture College, Ejura, Ghana ERCICTEL2225071
Esther Agyeiwaa Agriculture, Ejura Agriculture College, Ejura, Ghana ERCICTEL2225072
Mossharof Hossain IT Department, Kings Academy, Johannesburg, South Africa ERCICTEL2225073
Hassan Omar Baffo Government, Parliament, Muqdisho, Somalia ERCICTEL2225074
Salman Jamal Said Government, Parliament, Muqdisho, Somalia ERCICTEL2225075
Mohamad Abdollahi Hilowli Government, Parliament, Muqdisho, Somalia ERCICTEL2225077
Ruth Mobeso Beance EPST, Minister of Primary Secondary and Technical Education (EPST), Democratic Republic of the Congo ERCICTEL2225082
Sarah Milambo Tshilolo EPST, Minister of Primary Secondary and Technical Education (EPST), Democratic Republic of the Congo ERCICTEL2225083
Joemari Orbeso Language Instructor, Lapu-Lapu Cebu International College, Philippines ERCICTEL2225084
Chantal Lumbuenadio Ndandi Ministry of Primary, Secondary and Technical Education, Kinshasa, Democratic Republic of the Congo ERCICTEL2225085
Christian Rivera Panan National High School, Division of Zambales Department of Education, Philippines ERCICTEL2222064
Reem Abu-Shawish Educational Sciences Dept, Qatar University, Qatar ERCICTEL2224092
Karen Maria Mite Baidal Computer Science, Technologic Universitario Argos, Guayaquil, Ecuador ERCICTEL2223104

Meena Khatkar Faculty of English Language, GC Hisar, Hisar, Haryana, India ERCICTEL2222067
Kamal Jabr Education Department, UNRWA, Amma, Jordan ERCICTEL2223105
Nafiseh Mirzazade English Department, Salam Highschool, Iran ERCICTEL2221082
Umar Idris Abba Faculty of Science, Federal University Dutse, Kano, Nigeria ERCICTEL2226060
Çiğdem Ceylan Sağiroğlu Faculty of Education, University of Mersin, Doha, Qatar ERCICTEL2227063
Fiseha Adugnaw Department of Filmmaking, Fika Film Academy, Addis Ababa, Ethiopia ERCICTEL2226063
Ayazhan Akpisheva Faculty of Foreign Languages, The Eurasian Humanities Institute, Astana, Kazakhstan ERCICTEL2226064
Vivian Qian The International Montessori School, Hong Kong, China ERCICTEL2226069
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