**Developing Computational Thinking (CT) Skills Among Non-Computing Students through Online Collaborative Learning (CL) Environment**

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***ABSTRACT***

*Computational thinking (CT) skill has become one of the vital skills for future employment opportunities. It is a cognitive tool that helps students understand abstract information and solve problems systematically. However, research on the integration of CT in disciplines other than Computer Science is still lacking. In this study, non-computer science undergraduates were introduced to elements of computational thinking (CT), where they collaborated with peers to develop their CT skills in a technology related course. Peer learning is known to improve students’ attitude towards learning and can foster more personalized learning experience and develop lifelong learning skills. Therefore, this study examined the ways non-computer science undergraduates learn from their peers and developed their CT skills through collaborative learning environment. A Learning Management System by the university was used as the online platform and peer learning instructions was observed over a span of 10 weeks among 50 undergraduates. A qualitative approach was used in this study. Data of online forum discussion, semi-structured questionnaires and reflective writing were analyzed. Findings showed that students’ CT skills were developed by involving collaborative activities which grew from the learning process among peers. The results of the study helped to draw the characteristics of online collaborative learning environment that can stimulate CT skills. It also provided insights on students’ thoughts, feelings, experiences and opinions of the learning process through their online interaction. This study showed that CT skills can be developed among non Computer Science students through collaborative learning. It is also hoped that their CT skills are able to help them deal with problems for long-term success.*

***Keywords: Computational Thinking, Online Collaborative Learning, Non-Computing Students***