TITLE: ENHANCING NUMERACY SKILLS THROUGH MANIPULATIONS: THE

EFFECTIVENESS OF DIENES BLOCK IN TEACHING NUMBERS AND NUMERALS AT

NSOATRE M /A BASIC SCHOOL, GHANA – WEST AFRICA.

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Abstract:

This study investigates the impact of using Dienes blocks as a manipulative tool to teach numbers

and numerals to primary school pupils at Nsoatre M/A Basic School in Ghana. A quasi experimental design was employed, involving 100 pupils divided into control and experimental

groups. The experimental group received instruction using Dienes blocks, while the control group

received traditional teaching methods. Pre- and post-tests were administered to assess pupils'

understanding of numbers and numerals. Results showed significant improvement in the

experimental group's numeracy skills, particularly in understanding place value and number

representation. Teachers' observations and pupils' feedback also highlighted the effectiveness of

Dienes blocks in enhancing engagement and conceptual understanding. This study demonstrates

the potential of manipulatives like Dienes blocks in improving numeracy skills among primary

school pupils in Ghana and highlights the need for inclusive and interactive teaching methods in

mathematics education.

Keywords: Dienes blocks, numeracy skills, primary education, numerals, mathematics teaching, Ghana