

WEST VISAYAS STATE UNIVERSITY  
COLLEGE OF EDUCATION  
**GRADUATE SCHOOL**  
Iloilo City

LEARNING ENHANCEMENT AND RECONCEPTUALIZATION DESIGN (LENARD) AND  
MATHEMATICS CONCEPTUAL UNDERSTANDING

A Thesis Presented to the  
Faculty of the Graduate School  
College of Education  
West Visayas State University  
La Paz, Iloilo City

In Partial Fulfilment  
of the Requirements for the Degree  
Master of Arts in Education  
(Mathematics)

by

Lenard J. Jacildo

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Abstract

This study was conducted to find the effectiveness of the Enhanced Module in the learners' Mathematics Conceptual Understanding. A conceptual enhancement was done to the existing module of the Department of Education, such as a step-by-step procedure, adequate number of examples, etc., to help students learn best. A total of 64 out of 84 learners in one of the high schools in Negros Occidental enrolled during the school year 2021-2022 from 4 different Barangays, underwent 2-way randomization, and matched paired according to their sex and first quarter math grade. Respondents were grouped as Instruction with LENARD (Experimental Group) and Instruction with Traditional Module (Controlled Group), and they were tested using a researcher-made Mathematics Conceptual Understanding Test with  $KR20=.71$  before and after the use of Enhanced Module or LENARD. Respondents were homogenous before the start of the experiment. A Fair level of Mathematics Conceptual Understanding was found in the respondents in their pre and post-test scores. No significant difference existed between the pretest scores of both groups. Furthermore, there was no significant difference in respondents' pre and post-test scores in both groups. In addition, the two groups have no significant difference in the mean gain scores. LENARD is a conceptually enhanced module of Deped with reflection questions at the end part of the module. The

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respondents' responses can draw a positive review of the LENARD. Respondents who utilized the LENARD found it helpful and useful, easy to understand, fun, and interesting and recommended this to other students. With these results, the researcher concluded that students do not learn best with the modular approach. No matter how detailed the modules are, the students' attitudes and utilization of modules affect their performance. Lastly, the researcher suggested that learners must utilize the modules provided by the school, and teachers must conduct an activity that cultivates students' love for reading.

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