



**IMPROVED LEARNER-CENTERED TEACHING MODEL: BASIS FOR
INSTRUCTIONAL MATERIAL TO ENHANCE MATHEMATICAL
LITERACY OF GRADE 10 STUDENTS**

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ABSTRACT

The purpose of the study was to produce an improved learner-centered teaching model which will serve as basis for instructional materials to enhance mathematical literacy of grade 10 junior high school students of Bignay National High School in Division of Valenzuela City. The study also aimed to produce an improved learner-centered teaching model and a prototype lesson plan aligned with the components of learner-centered teaching developed by Weimer.

This study also validated the improved LCT model based from the analysis and evaluation of experts in the field of mathematics education. In addition, single group design was used to test the effectiveness of the improved LCT model as an instructional material to enhance the mathematical literacy of grade 10 junior high school students. Thematic analysis was employed by the researcher to develop an improved LCT model.

To achieve the objectives of this study, the researcher conducted a qualitative method of research employing interviews and focus group discussions with four stakeholders namely grade 10 junior high school students, mathematics teachers, school administrators, and mathematics experts. Thematic analysis by Braun and Clarke with six-phase framework was

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utilized by the researcher which includes (1) familiarization with data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) writing the report which contains the improved LCT model. A prototype lesson plan was developed based from the improved LCT model.

The results of this study revealed that learner-centered teaching is preferred by students, teachers, school administrators and mathematics experts as reflected in the views of the mentioned stakeholders. The instructional materials like the improved LCT model and prototype lesson plan were effective in such a way that it helped enhance mathematical literacy as evident in the mean scores of grade 10 students. Lesson plan formed part of the improved LCT model with an emphasis on planning and preparation.

Keywords: *Improved LCT model, prototype lesson plan, mathematical literacy, learner-centered teaching*

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