DE LA SALLE UNIVERSITY

DEVELOPMENT AND EVALUATION OF A MODULAR APPROACH
IN TEACHING INTEGRATED MATHEMATICS FOUR

A DISSERTATION
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ABSTRACT

The study aimed to develop and evaluate modular approach in teaching fourth year high school mathematics.

The study was divided into two phases, namely; the development phase and the evaluation phase. The development phase resulted in the production of the module, the Math-Pack, consisting of five topics. The evaluation of the Math-Pack was done using a questionnaire and by an experiment using the Non-equivalent Control Group Design.

The evaluation by the teacher using a questionnaire perceived the Math-Pack to have the necessary characteristics of an acceptable self-instructional material as to objectives; subject matter; organization, language approach, and style; adaptability, and evaluation.

The students found the modules to be interesting. The presentations of the lessons are easy with adequate examples to facilitate comprehension.

The experimental setting was done at the University of Southern Mindanao, Kabacan, Cotabato using two experimental classes and two control classes. Since modules are generally studied by groups of students, two types of grouping were considered, the forced and the

unforced groups. One class in the experimental classes composed the unforced group and the other class composed the forced group. The same technique was employed in the control classes.

A 50-item achievement test was constructed by the researcher. It was used as both the pretest and the posttest. The Analysis of Covariance was used to test statistics with the pretest as covariate and the posttest as the dependent variable. The results revealed that the experimental classes performed better than the control classes, both in the forced and unforced grouping schemes. The unforced group performed better than the forced group in both the experimental and control classes. There was no significant interaction effect between methods of teaching and types of grouping in terms of the students' achievement.

The findings led to the conclusion that modules could be effective self-instructional materials in teaching fourth year high school mathematics.