

DE LA SALLE UNIVERSITY

THE RELATIVE EFFECTIVENESS OF THE EXPOSITORY
AND THE DISCOVERY METHODS
OF TEACHING COLLEGE ALGEBRA ON THE
ACHIEVEMENT AND ATTITUDES OF STUDENTS

A THESIS
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ABSTRACT

This study aimed to compare the relative effectiveness of the expository and the discovery methods of teaching selected topics in College Algebra on the achievement and attitudes of students.

Methodology

A total of 160 first year agriculture students from four sections enrolled at the University of Southern Mindanao were the subjects of the study. Two sections were exposed to the expository method of teaching and the other two sections were exposed to the discovery method. The achievement test together with the mathematics attitude scale were given at the start of the experiment as pretest. After seven weeks, the same tests were given again as posttest. The students were classified into above average and below average using their fourth year high school grade point average (GPA) and NCEE percentile result. The analysis of the covariance (ANCOVA) was used to test the achievement and attitude change of students towards mathematics. The null hypotheses were all tested at 0.05 level of significance.

The Major Findings of the Study

(1) The difference between the achievement scores of the students exposed to the discovery and expository methods of teaching was not significant. (2) The



difference between the achievement scores of the above average and below average students exposed to the discovery and expository methods of teaching was significant. (3) There was no significant interaction on the students' achievement scores between methods of teaching (Discovery and Expository) and students' mental abilities (Above average and Below average). (4) The difference between the attitude change of the students exposed to the discovery and expository methods of teaching was significant. (5) The difference between the attitude change of the above average and below average students when exposed to both the discovery and expository methods of teaching was not significant. (6) There was no significant interaction on the students' attitude between methods of teaching (Discovery and Expository) and students' mental abilities (Above average and Below average).

Conclusion

The findings of the study led to the following conclusions: (1) The discovery and the expository methods are equally effective in teaching College Algebra. (2) Above average students are better than the below average students when exposed to both the discovery and expository methods of teaching. (3) The discovery method of teaching



leads to a more favorable attitude towards mathematics than the expository method. (4) The above average and below average students are comparable in attitude change when exposed to both the discovery and expository methods of teaching. (5) The methods of teaching (Discovery and Expository) do not produce different effects on the students' mental abilities (Above average and Below average) in terms of their achievement and attitude change.

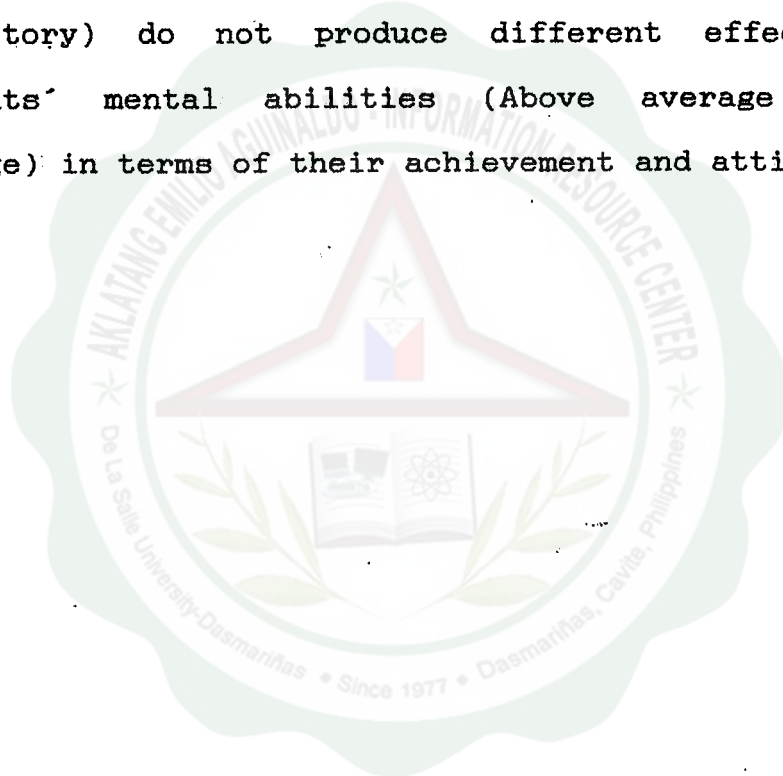


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