DE LA SALLE UNIVERSITY

COGNITIVE DEVELOPMENT AND ACHIEVEMENT IN SCIENCE THROUGH THE TRADITIONAL AND INQUIRY APPROACHES OF TEACHING GENERAL CHEMISTRY

A Thesis
Presented to the
Graduate School
De La Salle University

In Partial Fulfillment
of the Requirements for the Degree of
Master of Science in Teaching
Major in Chemistry

BY

ROSALINDA T. AGTON

NOVEMBER 1991

ABSTRACT

The inquiry approach of teaching science is based on Piaget's theory. This is called the learning cycle which is particularly effective for laboratory activities. This study investigated if there was a significant difference in the development of cognitive levels between the experimental group exposed to the inquiry teaching method and the control group exposed to the traditional method of teaching chemistry through laboratory experiments. The experimental group composed of thirty-two students and the control group of thirty-four students taking General Chemistry, served as samples. Using the pretest and posttest on Piagetian Tasks, the result was not significant as shown by the Theta Coefficient.

To find if there was a significant difference in the performance of the students in the achievement test when exposed to the inquiry teaching method or to the traditional teaching method, analysis of covariance was employed using achievement test scores as the dependent variable and the NCEE and SAI as the independent variables.

The researcher concluded that the inquiry approach of teaching was more effective than the traditional approach of teaching science laboratory activities as seen in the study.

DE LA SALLE UNIVERSITY

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES