A COMPARISON OF A TRADITIONAL AND AN INDEPENDENT STUDY METHOD OF TEACHING EIGHTH GRADE MATHEMATICS

AN ABSTRACT OF

A THESIS

PRESENTED TO THE GRADUATE FACULTY OF

WESTERN CONNECTICUT STATE COLLEGE

IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE

MASTER OF SCIENCE

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April 1968

In order to gain insight into whether or not two different methods of instruction produce an appreciable difference in mathematical achievement, two eighth grade classes from the Meetinghouse Hill School in New Fairfield, Connecticut, were compared for the school year 1966-67. One class was taught in the traditional fashion while the other was taught using an independent study plan.

A mathematics achievement test (STEP 3A) was administered to the classes in September. The test indicated that the classes were identical as far as achievement.

The traditional program of instruction was the one textbook, everyone-at-the-same-place, approach that is used in most classrooms today.

The independent study program permitted a student to complete a topic as rapidly as he wished. Many textbooks were available. Not all students studied the same topic at the same time. Testing took place as soon as a student felt he had mastered the material. The teacher acted as a resource person or tutor rather than a lecturer.

A student completed a unit when he scored 70 or higher on the unit test. If a student took a unit test and failed to reach 70, he was instructed to restudy the portions of the unit giving him trouble. As soon as this was done, he was eligible to take a second, but different, unit test.

The individual study plan provided many benefits to students. The most notable among these was that a student

no longer had to be retarded or speeded up in his work, but could work at his own rate of speed. As a result, there was a wide range of units completed in this program.

The traditional program was far easier to use, but left a great deal to be desired when matched against the possibilities the independent study program suggests.

The use of a teacher aide and programmed instruction are two areas that need further study with respect to the contribution they can make to the independent study method. The whole area of developing small units of instruction along the lines of an ungraded program also needs further investigation.

The results of the study as measured by the STEP scores in June indicated little difference in the mathematical achievement of the two sections. However, it must be kept in mind that this was the first year the students and the teacher were exposed to an independent study program and many of them were just getting familiar with the techniques of the program when the year ended. Several years of exposure to this type of instruction might well be necessary to accurately judge the value of an independent study plan.

There were strong benefits for a few students in the class and further experimentation might well lead to the development of a program that would be beneficial to a larger proportion of a class.