

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

A STUDY TO EVALUATE THE ACADEMIC AND
SELF CONCEPT GROWTH IN BILINGUAL CLASSROOMS

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by

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DEDICATED ... TO THE GLORY OF GOD

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ABSTRACT

A STUDY TO EVALUATE THE ACADEMIC AND SELF-CONCEPT GROWTH IN BILINGUAL CLASSROOMS

by

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Master of Arts in Education,

Foundations of Education

The purpose of this study was to evaluate the growth of the children in the academic area of Mathematics and in the area of self-concept in a sixth grade bilingual (Spanish and English) bicultural classroom at Rose Avenue School in Oxnard, California, to determine the positive or negative effects of the Spanish-English bilingual bicultural program.

The design used was a pretest posttest descriptive study.

Twenty-nine children took at least part of the battery of tests. The battery consisted of the Individual Computational Skills Test, the California Test of Basic Skills and the self-concept test which was developed by O'Melveny Elementary School in San Fernando, California.

A posttest was given for the Individual Computational Skills Test, the California Test of Basic Skills and the self-concept test. Fifteen children took both the pretest and posttest for the Individual Computational Skills Test.

The pretest, posttest and the t test scores for the children were statistically significant beyond .01 for Math achievement. The pretest and posttest and t scores for self-concept were not statistically significant.

The limitations of the study were two-fold. First, the amount of time that was available to conduct the research was limited. Second, there was the fact that there was no control group previously established that matched the cultural, linguistic and educational backgrounds of all of the children involved in the study.

CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

This research is proposed to identify and evaluate the academic growth and the growth of self-concept of the children in the bilingual program at Rose Avenue School sixth grade, (one room only was considered), and to assess the benefits of each program as to which program would be most beneficial to the children, both English and Spanish speaking.

The Subproblems

1. The First Subproblem. The first subproblem was to evaluate the academic growth in Math in the bilingual program at Rose Avenue School.
2. The Second Subproblem. The second subproblem was to evaluate the growth of the children's self-concept in the bilingual program.
3. The Third Subproblem. The third subproblem was to evaluate the program in terms of the norms for achievement for the test.

The Limitations

This study evaluated the growth of the children for the one year that they were in this bilingual class.

The sample was limited to the children in Room 14 at Rose Avenue School.

Only the children who took the pre and post test were included in the study.

The Importance of the Study

It is important for each child to be taught in whatever linguistic method will allow him or her to learn with the most ease and to perform to his maximum level. In order for every child to achieve these goals he/she must be able to clearly understand what he/she is being told in the classroom. The child who speaks only in Spanish or who understands better in a language other than English should be taught in that language. In order for that child to be taught in the best method, this research will strive to document the success or the failure of the involved program.

Assumptions

The First Assumption. The first assumption is that any change will be the result of the program and not because one teacher is more competent than the other teacher.

The Second Assumption. The second assumption is that the children will not be receiving any extra time in the basic subjects but will be receiving bilingual training in these subjects.

Definitions of Terms

Bilingual - A bilingual is a person who can read, write and speak fluently two languages.

Self-Concept - Self-concept is defined as how a person feels about himself. For the purpose of this sampling the self-concept will be measured by the O'Melveny self-concept growth scale and the positive self-concept will be measured by the increase in the average test scores from the pre and post test.

Academic Areas - For this sampling, the academic area to be tested is Math.

Hypotheses

The first hypothesis is that children who are taught bilingually will have a more positive self-concept.

The second hypothesis is that children who are taught bilingually will progress in academic skills at a rate equal to or greater than the norm.

CHAPTER II

REVIEW OF LITERATURE

There has been much written on both the negative and the positive sides of bilingual education. The research below is a brief summary of this research.

First of all, Jackson (1972), stated that English dominant children who were Spanish speaking bilinguals do better on free recall and serial recall learning tasks in English because English is their dominant language. Secondly, Carlson and Henderson (1968), found that the non-verbal scale of the P.S.P.T. (Point Scales on Performance Tests) revealed a high potential (IQ 101.06) that the verbal Binet did not (score on the Binet 83.77); stressing that the need for educational guidance based on the results from nonverbal, as well as the commonly used verbal tests. Beyer (1972), found there was an increase of 3.4 - 4.4 in Arithmetic and Vocabulary subtests given in Spanish over those given in English (Test-Retest basis). Fourth, Altus (1968), upon the assumption that the Wechsler Intelligence Scale had both verbal and performance tests which were self-explanatory, Altus found that the greatest discrepancies between the bilingual Spanish speaking and the unilingual child was on Vocabulary Information and the Similarities subtests of the Verbal Scale. There was a

significant difference between the two groups in Performance and I.Q.. In the arithmetic concepts, the Spanish speaking group showed retardation on the Verbal Scale which was attributed to their linguistic background. This author feels that this was due to the fact that the test was not bilingual. Test results like this cause bilingual educators to think again about how to best teach these special children.

Roger (1972) claimed that his "study strongly supports the theory that instruction should begin where the child is educationally, hence in the Spanish language if that is what he understands. But even more important than the academic achievement is the superior growth shown in self-concept. If the child likes himself and can accept himself regardless of his level of abilities, he will be better prepared to develop those talents."

Kobrick (1972), discussed the Massachusetts New Bilingual Education Act. The Massachusetts "Law declares that classes conducted exclusively in English are 'inadequate' for the education of children whose native tongue is another language and that bilingual education programs are necessary 'to insure equal educational opportunity to every child'". Many states now have similar laws either requiring that there be bilingual programs or that the

children be taught by someone who can speak their language even if that person is not a teacher.

This is very important because there are many people who do not speak ^{English} Spanish in the United States today. Kobrick (1972), stated "in New York City alone, 250,000 Puerto Rican children attend public schools. The estimated drop out (or 'push out') rate for these children has been put as high as 85 per cent. Of those who survive to the eighth grade, 60 per cent are three to five years below reading level" (page 56). It is specifically for these children, whether they be in New York City or in Los Angeles, California, that the bilingual programs in the United States were started.

Kobrick (1972), further states that:

Those would concentrate on teaching a child English overlook the fact that it takes time for a child unfamiliar with the language to achieve a proficiency in it even approaching that of a child raised in an English speaking home. In the meantime, struggling to understand other academic subjects, children fall behind. In bilingual programs, by contrast, two languages are used as mediums of instruction; a child is thus enabled to study academic subjects in his language at the same time he is learning English (page 58).

This is truly what we are trying to achieve in the bilingual classrooms around the United States. As bilingual teachers, we want all children to learn in the easiest way possible.

Results of recent studies are still being formulated. Harrison (1973), stated that Albright's dissertation on "A Comparison Between the Self-Concept of Mexican American Pupils Taught in a Bilingual Program and those in a Monolingual Program" found that there was no correlation between the self-concept scores for the children in these bilingual programs. This author feels that self-concept test scores were not valid because the children in the non-bilingual classrooms really do not feel confident in their classrooms. This is very evident when the children get an opportunity to change to a bilingual classroom. With these children, many times they are not working at all in class or are discipline problems and when they reach a bilingual classroom as a general rule the children improve. The main reason for this, the author feels, is the increased communication between the children and the teacher.

This study proposes to determine if and to what extent the bilingual programs are helping the children that are involved in them. The research mentioned here tends to support the idea that children learn faster in bilingual

classrooms because they understand what the teacher is saying. Roger's dissertation reaffirms the basis of this paper which is that if a child is happy and confident in a class, the chances of the child succeeding are greatly enhanced. The Massachusetts law was one of the first bilingual laws in the United States. This law has given as the basis of many of the laws that support our current bilingual programs. Kobrick (1975), further reaffirms the concept that children can learn faster in their dominant language. This is the basis for forming bilingual classrooms. Hopefully, this paper will add to the limited research on bilingual classrooms in the United States.

CHAPTER III

METHODS AND PROCEDURES

Subjects

The subjects involved in this research were the children in one sixth grade classroom at Rose Avenue School in Oxnard.

Instruments

The instruments used in this research were the Individual Computational Skills Series and the Self-Concept test for the O'Melveny School.

Design

This was a pre-test post-test descriptive study that compared the group with the norms of the test. The children were given the San Diego Test of Language Dominance to determine their language or the teacher has determined their dominant language. The children were given the 3-4 Math test in September and the 5-6 test in March (in addition to the 3-4 test.)

The Criteria for the Admissibility of the Data

Only the children who had been in the class for both the pre and post test were included in the study. In addition, children who had missed more than three weeks of school were not included.

The Means of Obtaining the Data

The tests were given as part of the normal class routine (see concluding note) and the results were gathered by the scoring of the tests.

Statistical Analysis

The data were analysed using means, standard deviation and a correlated t-test for dependent groups. The level of significance was set at .05 to determine significant difference between the groups.

CHAPTER IV

PRESENTATION AND TREATMENT OF THE DATA

The First Subproblem

The first subproblem was to evaluate the academic growth of the children in the sixth grade classroom.

The data were used in this subproblem is the Math test that the children had taken. The test was given, corrected and averaged to determine if the children had progressed at a rate equal to or greater than the norm for the test.

The Second Subproblem

The second subproblem was to evaluate the growth of the children's self-concept. The subproblem was determined by scoring the self-concept test and determining if there was a significant change in either a positive or negative manner.

The Third Subproblem

The third subproblem was to evaluate the problem in terms of the norms for the test. This subproblem was evaluated by determining the growth of the children as shown by the math test.

Table I

Pretest and Posttest Grace Equivalent Math
Scores for the Sixth Grade Bilingually Instructed Class

n=15

	Pretest	Posttest	t-value
Mean	5.1	6.4	-5.93*
Standard Deviation	.91	1.37	

*Significant beyond .01

Table II

Pretest and Posttest of the
Self-Concept of the Classroom

	Pretest	Posttest	t-value
Mean	25.19	25.75	-.731ns
Standard Deviation	2.90	2.1	

ns-not significant

Table III

Comparison of Growth of this Class and
The norm on the California Test of Basic Skills

	Months Gained	Actual Months between pretest and posttest	Difference
Reading	15	7	gain of 8
Math	9	7	gain of 2

An analysis of the data as noted in tables 1-3 show the summary of the results, the "t" tests, statistics and the significant differences between pre and post test grade equivalent growth in Math. * There was an average of 1.3 grade equivalent growth from pretest to posttest. Where the pretest is 5.1 and the posttest is 6.4, the "t" test result is $t = -5.93$. This was statistically significant beyond .01. Thus indicating a positive trend as a sign of positive growth between the pre and posttest grade equivalency scores.

Table II presents the data for the Self-Concept as indicated, there was no significant change in the Self-Concept scores of the children. This was possibly due to the unusually high pretest scores of the children. The t score on the Self-Concept test was -0.731 which was not significant.

Table III shows the growth of the class according to the CTBS test. The children made a growth of nine (9) months which was 128% of the expected growth.

CHAPTER V

CONCLUSION

This author feels that this research adds to the research supporting bilingual education. While there are some flaws in the research for the short time involved, this author really believes the results, especially on the CTBS testing were very significant.

Concerning the self-concept test, the results do not tend to support the growth in self-concept in the classroom, however, the childrens attitudes and their desire to attend school in general tended to support their very high Self-Concept which was not hurt by the bilingual program.

Further assessment conducted over a longer period of time than was available here. It is really necessary to see if the children, when taught under this type of bilingual education progress and retain what they learn beyond the first few months after they learn the concepts.

The control group for the Math testing was set up by the company that publishes the test. According to this control group, the children should have gained .5 years on the test. The children gained .66 years.

Finally, although the Math test was fairly reliable, the test for self-concept was really not a reliable test.

The author would suggest that if anyone is going to do another project similar to this, that they find another measurement for Self-Concept.

Summary and Commentary

Twenty-nine children took the test or at least a part of the test. Fifteen children took both the pre and post-test in Math. In the self-concept testing, there were sixteen children who took both the pre and the posttest. (Both of the tests need to be translated to insure that the translation is always given and is always the same). The children were also given the California Test of Basic Skills.

The average test score on the California Test of Basic Skills given in October was 6.3, the norm was 6.0. There is some discrepancy in the testing because the children who do not speak English fluently were not tested on this test. Also, the test was given only in English and some of the parts the children could not do due to reading difficulties.

The average test score on the ICPS was 5.1 for the pre test and 5.9 for the posttest. (5.1 is fifth grade first month). There was a slight discrepancy between the pre and post test scores. When the children were given the 3-4 test that was used for the pretest and as a post-

test, there was only a .66 difference in their scores. In any following research, the author suggests that the 3-4 and the 5-6 tests both be given.

The self-concept test showed no significant results. There was a positive difference of .5 points out of a total of thirty points. This was not large enough to be significant. A difference of either 10% in the positive or the negative would be considered significant. There also was a problem of inclement weather which possibly caused the children to score differently than they might have if the weather had been better.

Note

The ICPS test that was used as the pre and posttest for this research was also used and corrected with the children as part of a constant pre and posttest monitoring system in this class. The children showed a growth on the ICPS of 132% and of 128% on the California Test of Basic Skills. The similarity of scores on these two independent tests further supports the positive results of this study, that is, bilingual instruction is beneficial to both the Spanish and English speaking children.

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