

THE RELATIONSHIP BETWEEN ATTITUDES TOWARD SCHOOL AND ACADEMIC
ACHIEVEMENT OF FOURTH- FIFTH- AND SIXTH-GRADE MEXICAN
AMERICAN PUPILS ATTENDING SCHOOLS IN AREAS OF
DIFFERENT LEVELS OF ECONOMIC AFFLUENCE

A Dissertation

Presented to
the Faculty of the College of Education
University of Houston

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
C. Thomas Cron

May 1973

684745

Acknowledgments

The writer wishes to express his sincere appreciation to Dr. Robert E. Williams, his Committee Chairman, for his encouragement and guidance in the preparation of this study and to the other members of his Committee, Dr. Joseph P. Carbonari, Dr. Eugene B. Doughtie, Dr. Carl Schomburg, and Dr. Carl N. Shaw for their interest and contributions.

I am extremely grateful to the Corpus Christi Independent School District and to the principals, teachers, and pupils of the two elementary schools in making it possible for me to gather the data for this study. The courtesy extended the writer and the eagerness of the pupils made the assessment portion of the study very enjoyable.

Special recognition goes to the writer's co-workers and especially to the counselors who administered the attitude instrument, Laura Allard, Jo Ann Carpenter, Linda Cla-born, Pat Crowell, and Alicia Perez.

Bill Duer deserves recognition for his efforts in planning the computer programming and Cindy Van Houten for her typing of the manuscript. My appreciation is extended to Mr. Charles Richardson for his work on the graphics.

The writer acknowledges with gratefulness the years of love and encouragement of his parents, the late Dr. and Mrs. Charles F. Cron, and the very special help of his

wife's parents Mr. and Mrs. John LaGue.

Finally, I am extremely indebted to my wife Sue Ellen for having continuous faith and confidence in me and for being a "listener" and to my daughters Ellen Marie and Jenny Louise for giving their daddy the precious time to work.

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May 1973

Cron, C. Thomas. "The Relationship Between Attitudes Toward School and Academic Achievement of Fourth- Fifth- and Sixth-Grade Mexican American Pupils Attending Schools in Areas of Different Levels of Economic Affluence." Unpublished Doctoral dissertation, University of Houston, May, 1973.

Abstract

Purpose of the Study

The purposes of this study were, first, to investigate the degree of relationship between the Mexican American pupils' attitudes toward the school attended and the level of academic achievement, and second, to investigate whether Mexican American pupils attached different meanings (attitudes) to school-related concepts when grouped according to socioeconomic level, sex, and grade level.

Procedure and Source of Data

A version of the Semantic Differential (SD) was used to sample attitudes of 418 Mexican American children in the fourth- fifth- and sixth-grades of two public elementary schools in Corpus Christi, Texas. Using selected socioeconomic indicators, one school was designated a low Socioeconomic Status (SES) school, while a comparison school was selected to represent a middle Socioeconomic Status (SES) school. The Science Research Associates (SRA) Achievement Series was used to measure academic achievement.

The attitude instrument consisted of nine stimulus phrases and sixteen bipolar adjective scales. The responses, pooled over stimulus phrases, were subjected to a principal-component factor analysis. Two factors, named evaluative and dynamism, were extracted from the data matrices of the two schools. Factor scores were obtained for each subject on the two factors. Eighteen respondents were chosen at random by grade and sex from each school to comprise a total of 216 subjects that were used in the testing of the eight hypotheses in the study.

Results of the Study

The results, significant at the .05 level, indicated that for Mexican American pupils on Factor I, evaluative:

(a) A negative relationship was found between Factor I and the SRA reading subtest for pupils in the middle SES school. A positive relationship was found between Factor I and the SRA language arts and reading subtests for pupils in the low SES school, (b) Pupils in grade four had higher scores on the SD than did pupils in grade five and grade six, (c) Females had higher scores on the SD than did males, (d) Fifth-grade pupils in the low SES school were significantly lower in their marking of the SD than four of the five remaining interactions, and (e) Fourth-grade girls from the middle SES school were significantly higher in their marking of the SD than ten of the eleven remaining interactions. Fur-

ther, fifth-grade boys from the low SES school were significantly lower in their marking of the SD than ten of the eleven remaining interactions.

The results indicated that for Mexican American pupils on Factor II, dynamism: (a) Pupils in the low SES school had higher scores on the SD than did pupils from the middle SES school, (b) Pupils in grade six had lower scores on the SD than pupils in grade four and grade five, and (c) Sixth-grade male pupils were significantly lower in their marking of the SD than fourth- and fifth-grade males and fifth-grade females.

Conclusions

It was concluded that Mexican American students' perceptions of school, and various aspects of school, were related to achievement as measured by standardized achievement tests. Comparisons between the two schools indicated that Mexican American pupils in a middle SES school did not perceive school-related concepts more positively than did Mexican American pupils in a low SES school. The data in this study suggested that change in attitude toward school-related concepts appeared to be a function of grade level. Mexican American females viewed school-related concepts more positively than did Mexican American males.

Recommendations

It was recommended that an investigation be made of the effect of special programs, i.e., Head Start, bilingual, and Follow-Through, concerning the attitudes toward school of Mexican American pupils. Because of differences in program emphasis, a study should be made of the affective components that may or may not be part of these programs. Research should be conducted into methods of teaching and their effect on attitudes.

A study should be made of attitudes of the pupil as influenced by the motivational patterns of the family and of attitudes of the pupil as a function of ethnic groups. Follow-up research should be carried on to determine if students continue to be increasingly negative in their responses to self-report instruments.

It was further recommended that school districts consider the Semantic Differential technique as a method of evaluation of pupils' attitudes in the elementary grades. It appeared that the Semantic Differential technique could be very useful in evaluation of the affective component of compensatory educational programs.

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CHAPTER I

THE PROBLEM

A review of the literature on the culturally different learner revealed a concern by educators that these pupils had a constellation of attitudes that severely handicapped their school performance. This concern was based on several factors: first, the widely held belief that favorable attitudes toward school contributed to learning (Kelly, 1965; Klausmeier & Goodwin, 1966; Travers, 1967); secondly, the assumption that children of lower socioeconomic background perceived their school environment negatively (Carter, 1970; Gordon & Wilkerson, 1966); and finally, that children's attitudes toward class and school had a cumulative negative effect upon their satisfaction with school (Neale & Proshek, 1967; Badwal, 1969).

Theoretically, the general expectation had been that scholastic success would be associated with positive attitudes toward school. Travers (1967) stated that learning related to approach and avoidance tendencies had first been seen early in childhood, when certain objects became attractive, and others initiated a negative reaction. These tendencies later became internalized, and the child showed an acceptance or rejection of ideas or values. Festinger (1957)

interpreted the approach or avoidance of ideas and objects as man's striving toward consistency. He theorized that, "An inconsistent environment tends to continuously produce dissonance within the individual (p. 3)." This proposition has profound implications in studying the attitudes of children from a minority culture.

Riessman (1962) noted that even though the deprived person in many ways has desired education, he has been inhibited by a low evaluation of self, low level of aspiration, and negative feelings about school and school work. The Mexican American child has an additional conflict since he brings to school a different culture and language. Ramirez (1970) wrote that, "Since the bicultural individual is constantly forced to choose between his loyalty to two different groups, he is constantly under stress (p. 118)." This statement would be particularly crucial to the educator whose task has been to facilitate learning in school and to help create opportunities for developing favorable attitudes among Mexican American children.

Purpose of the Study

The purposes of this study were, first, to investigate the degree of relationship between the Mexican American pupils' attitudes toward the school attended and the level

of academic achievement, and second, to investigate whether Mexican American pupils attached different meanings (attitudes) to school-related concepts when grouped according to socioeconomic level, sex, and grade level.

More specifically, the following questions were investigated:

1. Are Mexican American pupils' perceptions of school, and various aspects of school, related to achievement as measured by standardized achievement tests?
2. Do Mexican American pupils in a middle SES school perceive school-related concepts differently from Mexican American pupils in a low SES school?
3. Do changes in attitude toward school-related concepts appear to be a function of grade level?
4. Do Mexican American females view school-related concepts differently from Mexican American males?

Importance of the Study

A common objective of education programs for the culturally different child has been the improvement of attitudes toward school and learning. In the Coleman Report (1966) it was concluded that the attitudinal variable (interest in learning and reading, self-concept, and control of environment) of minority children accounted for more of the

variation in achievement than any other set of variables (all family background variables together, or all school variables together).

Creating and shaping attitudes has been one of the most important functions of schools. Dinkmeyer wrote that:

School frequently arouses mixed feelings about necessary adjustments to work tasks, a new significant adult, and a new set of peers. These emotional upsets decrease as the child learns to master his environment and begins to feel competent socially (1965, p. 259).

The school has had the potential for improving attitudes, yet it sometimes has created a climate that has had an undesirable effect on the student. While programs for the culturally different have been designed to promote more positive attitudes, a careful review of the literature revealed few published investigations which involved the school-related attitudes of the Mexican American child. Jackson (1968) noted that the grade school student's sentiment with regard to classroom life has been relatively unexplored for all groups of students. Carter (1970) discussed the Mexican American's perception of school and stated, "The lack of hard data is regrettable, and . . . strongly suggests fields for intensive empirical investigation (p. 134)." It would appear, therefore, that if programs for the culturally different are going to have an impact on

the pupils, the attitudes toward school of these pupils should be examined to see if these attitudes were positive or negative and whether these feelings and meanings were perceived over a range of variables.

Limits of the Study

This investigation was limited to a study of fourth- and sixth-grade Mexican American children in two public elementary schools in Corpus Christi, Texas, during the Spring Semester of 1972. Conclusions drawn from the study were limited to the above population from which the samples were drawn. The purpose of the design was not to establish causation, but only to ascertain relationships.

Definition of Terms

Attitude: An attitude is the individual's set of categories for evaluating a domain of social stimuli (objects, persons, values, groups, ideas, etc.) which he has established as he learns about that domain (in interaction with other persons, as a general rule) and which relate him to subsets within the domain with varying degrees of positive or negative affect (motivation-emotion) (Sherif and Sherif, 1969).

Culturally Different Learner: One whose values, aspirations, conduct, and home life do not correspond to

those of the majority middle class (Carter, 1970).

Disadvantaged Learner: One who is handicapped in the task of growing up to lead a competent and satisfying life in the American society (Havighurst, 1971).

Socioeconomic Status: Refers to the different levels assigned to people according to their various social characteristics with particular emphasis on occupation and income (Lundberg and others, 1963).

School SES: The socioeconomic status or social class of the aggregated pupils of a school.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter presents a review of the literature and is composed of three main sections: (1) literature related to the concept attitude and its measurement, (2) literature related to the influence of culture on the attitudes of the Mexican American, and (3) research literature related to pupil attitude toward school.

Literature Related to the Concept

Attitude and its Measurement

In 1935 Gordon Allport reviewed the general area of attitude theory and research. At that time he noted that:

The concept of attitude is probably the most distinctive and indispensable concept in contemporary American social psychology. No other term appears more frequently in experimental and theoretical literature (Allport, 1935, p. 798).

In discussing the various definitions of attitudes, Allport noted, "In one way or another each regards the essential feature of attitude as a preparation or readiness for response (Allport, 1935, p. 805)." This was an attempt to differentiate the concept from other types of readiness (e.g. habits, sentiments, opinions, interests).

Many social psychologists have made a distinction between belief and attitude. Generally, cognitive aspects

have been attributed to belief, and affective or motivational aspects have been attributed to attitudes (Halloran, 1967).

There has been some disagreement over the composition of attitudes. Katz (1967) suggested that attitudes would include several components. He rejected the idea that attitudes would be related simply to approach or withdrawal tendencies, and suggested that attitudes to some degree would include an affective, cognitive, and action component.

Berelson and Steiner (1964) placed opinions, attitudes, and beliefs together. They did, however, accept that there would be differences in the generality of these concepts and in the intensity with which these concepts would be held.

Fishbein, however, viewed attitudes as a relatively simple unidimensional concept. "Rather than viewing beliefs and behavioral intentions as a part of attitude, I prefer to define them independently and to view them as phenomena that are related to attitudes (Fishbein, 1967, p. 487)."

Sherif and Sherif stated that the cognitive-motivational-behavioral aspects of attitudes would not be insulated components.

The best evidence available indicates that a particular individual's beliefs, emotional feelings, and behavior toward the attitude object are highly correlated and that this consistency is greater to the extent that the person is highly ego-involved (Sherif and Sherif, 1969, p. 336).

Sherif, Sherif and Nebergall (1965) emphasized the need to study attitudes in the context of an individual's reference group. In this connection Dinkmeyer (1965) wrote:

Each child develops within a specific social setting. The nature of the specific life space has an influence upon his learning experiences and how he feels about them. Each culture, and to an extent, each group to which the individual belongs, furnish a set of expectations and relationships which influence the eventual development of social skills, behaviors, and attitudes (p. 144).

Sherif and Sherif (1969) provided criteria to distinguish attitudes from other internal factors. They stated that attitudes would not be innate, but would belong to the domain of human motivation the initial appearance of which would depend upon learning. Once they had been formed, attitudes would not be temporary, but would be more or less enduring.

According to Sherif and Sherif attitudes would stabilize a relationship between the person and objects. Attitudes would be formed or learned in relation to identifiable referents, whether these factors were persons, objects, groups, values, institutions, social issues, or ideologies. They emphasized that an important source from which attitudes would be derived would be the set of values or norms prevailing in the person's groups, social class, institutions, and his culture.

Sherif and Sherif noted that the subject-object relationship would have motivational-affective properties. Many attitudes, they wrote, would be formed in highly significant social interactions and would be directed toward objects with social significance in the lives of the participants.

Sherif and Sherif also stated that attitude formation would involve the formation of categories encompassing a small or large number of specific items and that it would involve concept formation, a process that need not be conscious or deliberate.

Sherif and Sherif concluded that principles applicable to attitude formation in general would be applicable to the formation of social attitudes. The person would form attitudes relating himself to others in interpersonal relations, group relations, inter-group relations, cultural and class values, and ethnic affiliations.

Measurement of Attitudes

Scott (1968) wrote, "The theories and techniques of attitude measurement today are by no means integrated or similarly followed by all psychologists (p. 209)." Scott further reported, "Of the many properties that have been theoretically attributed to attitudes, most researchers have

been concerned with measuring only two: direction and magnitude (Scott, 1968, p. 209)."

A review of the attitude measurement literature revealed a considerable amount of effort and accomplishments in self-report attitude scale construction (Thurstone & Chaves, 1929; Likert, 1932; Guttman, 1947; Coombs, 1952; Osgood, Suci, & Tannenbaum, 1957). These "direct" techniques for attitude assessment have been the most widely used.¹

Literature Related to the Influence of Culture on the Attitudes of the Mexican American

The study of positive or negative attitudes toward school has been closely tied to the individual's cultural background. It has been stated that:

The formation of attitudes is very largely provided by the culture and the sub-cultures in which the individual participates, and it is essential to take into account the relation of the social structure to the learning processes and its effects (Halloran, 1967, p. 29).

Many diverse Spanish-speaking groups originating in Mexico exist in the Southwest. They differ somewhat in

¹The choice of the Semantic Differential technique in the present study is reported in Chapter Three which documents the reasons for choosing the technique as well as the methodology employed in the investigation.

length of residence, degree and kind of involvement with Anglo American culture, and in acculturation, yet major cultural values and social institutions are shared by all of them (Texas Education Agency, 1969; Carter, 1970).

Most Mexican American cultural and personality characteristics have been seen as positive and functional (Cabrera, 1971; Moquin & Van Doren, 1971; Burma, 1970; Grebler, Moore & Guzman, 1970; Hernandez, 1969; Flores, 1972; Castaneda et al., 1971; Romano-V., 1971). Features of these characteristics that were different from the dominant group life style were:

1. The home and community: A number of different family systems have been found among the Mexican Americans. At one end of the continuum have been the traditional extended patriarchal families and at the other end have been broken families, isolated parents, and nuclear families consisting of husband, wife, and children. "Until very recently the extended patriarchal family carried on all functions of socialization, social control, education, welfare, protection, production, and religion (Texas Education Agency, 1969, p. 18)." However, Grebler, Moore, and Guzman (1970) in their study of Los Angeles and San Antonio Mexican Americans found that the extended family household was extremely rare. They commented, "A high incidence of broken families indicates

that the Mexican American family possesses no extraordinary capacity to resist the strains of poverty and of rapid social change (p. 368)."

Mexican Americans were long confined to largely ethnic neighborhoods. As one would expect relations with Anglos were more frequent among middle-class than among lower-class individuals and among those living in mixed neighborhoods than among barrio residents. The barrio, or neighborhood itself has been an important social system among the lower income Mexican American. The barrios have been almost totally isolated from the larger society; English has seldom been heard. The barrios have been often over-crowded, perhaps with two or three substandard houses on one small lot. The area of the barrios has not expanded appreciably, although the population has continued to increase (Lamb, 1970). The inhabitants close to the border have tended to listen to Mexican radio stations and to watch Mexican television programs. Mexican newspapers and magazines have circulated far more than those in English (Texas Education Agency, 1969; Grebler, Moore & Guzman, 1970; Forbes, 1970).

2. The child: Medina (1972) described the Mexican American child as usually becoming independent at an early age. He has been highly disciplined by parents, through fears, threats, and mysticism. The oldest son has been the

dominant and most important sibling. The older children have often been responsible for the care of younger ones. Cabrera (1971) wrote:

Mexican American children are individualistic and are just as spoiled and as saucy with their parents as their Anglo-American counterparts. Certainly many restrictions of the activities for boys and girls in the family are not greater for Chicanos than for average Anglo-American youth (p. 56).

3. The sex role: According to much of the literature, the culture has emphasized a strict separation of the sex roles. The role of the male has been established as the bread winner and head of the family. The culture has emphasized machismo or maleness in the young boy. "Machismo is a regularly used term by most Spanish-speaking people. Its interpretation is difficult; most contend it implies 'Don Juanism' and masculine assertiveness (Carter, 1970, p. 41)." A recent study by Flores (1972) of 100 impoverished Mexican American families in Corpus Christi, Texas, seemed to indicate a lack of agreement concerning present day adherence to the machismo concept.

The role of the Mexican American female has been typically described as one of performing household duties. In performing these duties, the female has always been subservient to the male head of the family (Ramirez, 1967; Medina, 1972). As with machismo it has been extremely doubtful that

such roles and role learning have characterized all, or even most, contemporary Mexican American homes (Carter, 1970).

Cabrera (1971) reported that:

In many homes in the Southwest today mother works and she has a decisive voice, if not the chief one, in family decisions, management of finances, and care of children (p. 56).

4. The social system: The Mexican American culture has emphasized the continued loyalty of its members to the group. The reawakening of la raza (the race), with its renewed emphasis on values, language, and culture, has played a major role in the "spirit of belonging" of the Mexican American. The difficulty to unite la raza has been to name the people who make it up.

There are several names to choose from: Spanish American, Latin American, Mexican, and (most recently) Chicanos The name preferred will depend on geography, age, and ethnic background

In addition, many members of Mexican American communities are moved by interest other than ethnic ties The attractions of wealth, social position, and educational attainment have been nearly as significant among Mexican Americans as the equally alluring 'will o' the wisp' of ethnic loyalty (Moquin & Van Doren, 1971, pp. xii-xiv).

The leadership aspect of the group has also caused mixed feelings among Mexican Americans.

Because of 'envidia,' a form of social jealousy, a Mexican American who gains a higher social, educational or economic level than the majority of his friends or relatives will often incur their hostility rather than their admiration (Texas Education Agency, 1969, p. 33).

However, Forbes (1970) wrote that, "Mexican American civic, business and political leaders are now prominent in many regions, and they include within their ranks members of Congress, mayors, and all types of professional people (p. 11)."

Fundamental differences have existed between the basic value configurations of the Mexican American and those of the Anglo. Perhaps the attitude toward time has been one of the most important cultural differences. To the Mexican American there has been no strong sense of a future. Carter (1970) and Flores (1972) both found this a consistent value orientation of the groups they studied. Cabrera, on the other hand, commented that the present-time orientation has been well entrenched in narratives, but that "insurance agents, as an example, can attest to the fact that future planning is indeed an important element in the lives of today's Mexican-Americans (Cabrera, 1971, p. 57)."

A related value to time has been the Mexican American's feelings of personal control. The attitude that "it will not matter what I do (fatalism)," has been shown to be prevalent among the Mexican American (Coleman, 1966; Justin, 1970). However, a study mentioned earlier by Flores (1972) appeared to be in some disagreement with both the Coleman and the Justin evidence. His results showed that the Mexican American sample being studied was non-fatalistic. Carter

(1970) found similar results in his study in a semirural and castelike agricultural area of California.

Competition, individualism, achievement, and success have been fundamental Anglo American values. The contrasting Mexican American values have been directed toward intimate friends, family relationships, responsibilities to dependents and cultivation of an enjoyable life (Texas Education Agency, 1969). Again, however, there have appeared to be wide differences in these values depending upon the socioeconomic level of the family (Madsen, 1964; Hernandez, 1969; Manuel, 1967; Grebler, Moore & Guzman, 1970). Flores (1972), in his study of low-income Mexican American families, found a high level of aspirations. Grebler, Moore and Guzman (1970) found similar results, but reported that Mexican American aspirations and expectations were lower than those of Anglos in the same area.

The effects of these different cultural orientations on the Mexican American, as he has operated in an educational system that has been built on Anglo middle class achievement motives, would appear to explain the difficult problems that have faced him in school. The following areas have appeared to have had the most critical effect on the Mexican American. First, the language spoken in the home has continued to be Spanish, and therefore many children have come to school with

little or no knowledge of English. Thus the parents' adherence to the foreign language has presented both learning and adjustment problems for the children, whose cultural modification has been slowed as a result of the difficulties involved in communication. The child also has not known if he should abandon his culture and accept the values of his school or vice versa.

The recent implementation of bilingual and bicultural programs has been an attempt to maintain this cultural identity of the Mexican American with his ethnic group while he has adopted the values and life style of mainstream America (Bernal, 1969; Castaneda et al., 1971). The importance of these programs was exemplified by the girl who was enrolled in a bilingual-bicultural program. The girl told her mother, "Mama, it's all right. You can visit my school. They talk like you do (Castaneda et al., 1971. p. iii)."

Secondly, the importance of the family has frequently resulted in subordination of the student's educational goals when the family has been in need of his help or when trips have been made to visit other relatives.

Finally, many of the Mexican American communities have suffered the disadvantages of poverty with serious health problems, high family disintegration, and delinquency rates. The lack of family resources has caused many young

people to work rather than go to school (Manuel, 1967).

In summary, the dichotomy between folk and urban cultures has played a considerable role in social theory of the Mexican American. It has been apparent that the Mexican American's attitudes, problems, interests, and economic potential have been as diversified as those of any segment of American society. Therefore, it has become increasingly difficult to generalize about the Mexican American as he functions in the American society.

Research Literature Related to Pupil Attitude Toward School

Many educators have speculated on Mexican American children's perceptions of formal educational institutions, but only a few investigators have studied them. These studies have been primarily at the secondary level. Ramirez (1967) in his study of values of Mexican American junior and senior high school students of low socioeconomic class in a school district in a Northern California city, concluded that schools must come to grips with the issue of value conflicts if attitudes toward schools were to improve for the Mexican American. Aside from the difficulties that could be attributed to Mexican American children from being bilingual (Levine, 1969; Hittinger, 1969), Ramirez commented:

Most Mexican American children in the Southwest spend the early years of their lives almost exclusively in the Mexican barrios (neighborhoods) of cities and towns. Here they come to adopt a system of beliefs and coping techniques which is far removed from that of the Anglo middle class. In addition, they learn to model themselves after Mexican American culture and are critical of the Anglo ways . . . many of these values come into direct conflict with those of the Anglo middle class teachers and administrators in our schools (Ramirez, 1967, p. 2).

Demos (1962) administered a questionnaire to Mexican American and Anglo American secondary school students in a Southern California district. Demos reported that:

Differences in attitudes are found among the Mexican-American and Anglo-American groups

In every case where a difference is found between random samples, the Anglo-American group has the more desirable attitude toward education (p. 255).

Carter (1970) concurred with this finding based on interviews that he conducted with school people. He stated, "There is no one Mexican American perception of school, but it does appear that their attitude is generally more negative than the attitude of Anglos (p. 134)." Carter added that, "Many minority-group youngsters see teachers as prejudiced and discriminatory toward their group (p. 134)."

Studies of other minority groups have not confirmed the findings by Demos or Carter. Neale and Proshek (1967) found in their study of fourth- fifth- and sixth-grade culturally deprived Negro pupils in two Minneapolis elementary schools, that these pupils were not negative about school,

at least in the sense of devaluing school and school-related activities. They stated, "It appears that school is valued highly, perhaps as something difficult to attain and perhaps as a place where unpleasant things occur, but nevertheless valued (p. 243)." Greenberg et al., (1965) had found similar results in an earlier study of fourth-grade Negro children.

Berk, Rose, and Stewart (1970) did a cross-cultural study of school related-attitudes of 9- and 10- year old American children in five suburban school districts and in one city school. In the study, a replication of a study carried out in England, Berk, Rose, and Stewart concluded that elementary school children in the United States have had a strong tendency to respond positively when queried about their school experience.

Despite the widely held belief that favorable attitudes toward school and school subjects have contributed to achievement motivation (Kelly, 1965; Klausmeier & Goodwin, 1966; Travers, 1967), no substantial body of empirical knowledge has been developed to document such a belief. With regard to the Mexican American elementary student, it appeared that little has been attempted. Jackson (1968) in his review of research done on all groups of elementary children, not necessarily disadvantaged, concluded that no apparent relationship existed between student attitudes and academic

performance. Also, the relationship was again the same for boys and girls and did not depend on whether achievement test scores or course grades were used in the computation (p. 75). Berk, Rose, and Stewart (1970) concluded from their study that there were almost no differences among American children in the way students of varying ability felt about school. This was in contrast to the findings of the study made in England.

LaBelle (1969), using the Semantic Differential technique with Anglo and Spanish American fifth-grade students attending fourteen public schools in Albuquerque, New Mexico, found that high achievers did not necessarily perceive school-related concepts more positively, potently, and actively than did middle and low achievers. Micali (1965) had found similar results earlier with his study of expressed attitudes of sixth graders in the public schools of Springfield, New Jersey. Using a specially constructed Classroom Practices and Procedures Inventory, he found that children's expressed attitudes toward class and school were not found to be a function of ability level or academic achievement. Godbold (1968), using eighth-grade pupils who were attending junior high schools in communities of different socioeconomic levels, found that on the average the level of achievement in basic educational skills reached by

pupils in his study did not necessarily influence their attitude toward school.

Not all the research has shown negative results concerning academic achievement. Neale, Gill, and Tismer (1970) studied the attitudes toward school subjects and school achievement of 105 boys and 110 girls in the sixth grade in eight classrooms in suburban elementary schools near St. Paul, Minnesota. Their results showed that positive correlations were observed for boys in social studies, arithmetic, and reading and for girls in reading between ratings on a version of the Semantic Differential and scores on subtests of the SRA Achievement Series. Malpass (1953), although he found no significant relationship between eighth graders' overall attitude toward school and achievement test scores, did find significant relationships between the measure of attitude and teacher grades.

In a still more recent study, Shepps and Shepps (1971), using the Survey of Study Habits and Attitudes, examined the relationship of sixth-grade pupils' study habits and school attitudes to achievement in mathematics and reading. Subjects were sixteen boys and ten girls attending a private school in New York. Only the attitude subtest appeared predictive for the group as a whole, using the reading criterion ($r = .37$). The analysis also revealed that for boys only,

the attitude subtest predicted reading achievement ($r = .60$) and for girls predicted mathematics achievement ($r = .76$).

Studies which have considered the relationship between attitudes toward school and socioeconomic status have been as limited as that relating attitudes to academic achievement. LaBelle (1969), in his study of Anglo and Spanish American fifth-grade students, reported that middle and high socioeconomic status (SES) students perceived school-related concepts more positively, potently, and actively than did low SES students. LaBelle used mean factor scores from the Semantic Differentials for each of the ten concepts in his study, rather than a total factor score as used in the present study.

Berk, Rose, and Stewart (1970) in their cross-cultural study revealed that in contrast to the English group, there were almost no differences among American children in the way students of varying socioeconomic status felt about school.

Greenberg et al. (1965), in exploring the attitudes of 115 culturally deprived fourth-grade Negro pupils in one public school in New York, found that these children expressed favorable attitudes toward achievement-related concepts. Neale and Proshek (1967) compared the responses of fourth- fifth- and sixth-grade Minneapolis children attending

a poverty area school with those of Minneapolis children attending school in a middle income area and found no significant differences in socioeconomic status and attitudes. Godbold (1968), referred to earlier, came to a similar conclusion in his study of eighth-grade pupils.

Evidence gathered on the relationship between attitudes toward school and grade level has only recently been appearing in the literature. Badwal (1969) studied the attitudes toward school of 400 boys and girls in a rural county in Maryland. Using an attitude scale he constructed, Badwal found that a third-grade population obtained a significantly higher attitude score than a sixth-grade population. Neale and Proshek (1967), in an earlier study, found that pupils' evaluation of a variety of school-related phrases were increasingly negative as grade in school increased.

The most consistent finding among all of the attitude investigations concerned the relationship between sex and attitude toward school. A number of studies (Berk, Rose, & Stewart, 1970; LaBelle, 1969; Fitt, 1956; Jersild & Tasch, 1949; Tannenbaum, 1940) indicated that, in general, girls' attitudes were more favorable than those of boys. The exception to these studies appeared to be those done on the disadvantaged. Neale and Proshek (1967) found in their study that sex differences in attitudes were not as marked

for low socioeconomic children as for middle socioeconomic children. Greenberg et al. (1965) found similar results in their study of Negro children from a severely depressed urban area.

Conclusion

There was some indication, as evidenced by the literature, that the Mexican American child has faced competing modes of conduct, one of his family and friends, one of the school. It has also been reported that the Mexican American child has had a more negative attitude toward school than the Anglo child. Finally, it appeared that the socioeconomic level of the family has played a significant role in the value orientation of the Mexican American child.

The above conclusions and the analyses of research dealing with pupil attitudes toward school were related to the following research questions.

1. What relationship existed between the Mexican American pupils' attitudes toward the school attended and the level of academic achievement? It was predicted that the attitudes a Mexican American pupil expressed toward his school would not be related to the Mexican American pupil's level of academic achievement.

2. Did Mexican American children attach different

meanings (attitudes) to school-related concepts when grouped according to socioeconomic level, sex, and grade level?

First, it was predicted that the pupil's attitude toward school-related concepts would not be related to the socioeconomic level of the school he attended. Secondly, it was predicted that as grade in school increased there would be an increasingly negative effect in attitude toward school-related concepts. Finally, it was predicted that Mexican American female pupils would have a more positive attitude toward school-related concepts than Mexican American males.

CHAPTER III

METHODS AND PROCEDURES

The purposes of this study were, first, to investigate the degree of relationship between the Mexican American pupils' attitudes toward the school attended and the level of academic achievement, and second, to investigate whether Mexican American pupils attached different meanings (attitudes) to school-related concepts when grouped according to socioeconomic level, sex, and grade level. This chapter describes the sample, instruments used in the study, and procedures and methods used for analyzing the data collected.

Sample

The sample for this study was comprised of 418 fourth- fifth- and sixth-grade Mexican American pupils from two public schools. One public school was in a low socioeconomic area with 99% of the pupils having Mexican American origins. The other school with 77% of the pupils having Mexican American origins was in a middle socioeconomic area. Both schools were located in Corpus Christi, Texas. Eighteen respondents were chosen at random by grade and sex from each school to comprise a total of 216 subjects that were used in the testing of the eight hypotheses in the study. Table 1 indicates the number of male and female Mexican American

pupils in the sample at each grade level for the two schools.

Table 1
Socioeconomic Level, Grade, and Sex of Pupils

SES of School Enrollment	Grade	Males	Females
Middle	4	48	46
	5	45	34
	6	34	36
	Total	127	116
Low	4	18	28
	5	35	33
	6	26	35
	Total	79	96

Table 2 presents selected socioeconomic indicators for the two schools in the study.

Instruments

The measurement of attitudes was accomplished through the use of Osgood's Semantic Differential (SD) technique (Osgood, Suci, & Tannenbaum, 1957). The five-point SD instrument (see Appendix A) was constructed using nine stimulus phrases to be rated on sixteen bipolar adjective scales. The adjective scales were chosen chiefly from those that had been used in previous studies (Greenberg et al., 1965; Neale & Proshek, 1967; Neale, Gill, & Tismer, 1970). The adjective

Table 2

SELECTED SOCIOECONOMIC INDICATORS
FOR TWO ELEMENTARY SCHOOLS

	Low (SES) School	Middle (SES) School
Buying Power Index ^a	E (low)	C (middle)
Percentage of students who participate in Free Lunch Program ^b	92	32
Percentage of families that participate in Food Stamp Program ^b	40	6
Percentage of families that receive aid for dependent children ^b	25	3
Percentage of Mexican American students ^c	99	77

a - Based on information gathered from U.S. Census data, block canvassing and real estate valuation (Coles, 1971).

b - Data from Corpus Christi Public Schools, Department of Food Services, 1972.

c - Data from Corpus Christi Public Schools, Department of Planning and Evaluation, 1972.

scales were: GOOD-BAD, SAD-HAPPY, MOVING-STILL, INTERESTING-BORING, FAIR-UNFAIR, BIG-LITTLE, STRONG-WEAK, WISE-FOOLISH, WORRIED-RELAXED, FAST-SLOW, CLEAN-DIRTY, NEW-OLD, NICE-MEAN, WONDERFUL-TERRIBLE, HEAVY-LIGHT, and FRIENDLY-UNFRIENDLY.

The stimulus phrases consisted of people who might be important in affecting achievement behavior or specific aspects of school. The stimulus phrases used were: MY TEACHER, MY SCHOOL BUILDING, MYSELF IN SCHOOL, WORKING ARITHMETIC PROBLEMS, READING A BOOK, WRITING A STORY, MY PRINCIPAL, MY CLASSROOM, and MY CAFETERIA. Polarity of each scale, stimulus phrase presentation and adjective scale order were randomly assigned.

The SD instrument was administered to the 418 pupils during May, 1972. Certified school counselors were used to give the directions (see Appendix B). In order to minimize the possibility of socially desirable responses by the pupils, the teachers were asked not to stay in the classroom. Also pupils were told that no one at their school would see their responses.

The SD technique was chosen over other types of attitude assessment for several reasons: it had a well-formulated theoretical rationale; considerable work had been done with it which indicated that it could be used for attitude measurement, for investigating meanings within a culture and

for making comparisons among groups; it did not require extensive reading by the subjects, and it could be administered to groups and scored objectively (Osgood, Suci, & Tannenbaum, 1957; DiVesta, 1966; Heise, 1970). DiVesta reported that:

The Semantic Differential appears to tap in a significant way, the emotionality of words and suggests further avenues of exploration in the formation of children's attitudes and values in educational settings (DiVesta, 1966, p. 256).

Rather than the conventional seven-point scale used with older students and adults, a five-point scale was chosen for the present study. Osgood et al., (1957) reported, "Grade-school children seem to work better with a five-step scale, and there is probably some relation here to intelligence differences (p. 85)."

Reliability of Semantic Differential Measurements

Heise (1970) reviewed various studies that had employed the SD technique. In discussing reliability, he reported, "There is indeed a significant gain in test-retest correlations when factor scores are used rather than individual scale ratings (pp. 245-246)." DiVesta & Dick (1966) in their study of SD reliability found that for children in the fourth grade or higher test-retest correlations ranged between .50 and .80.

Validity of Semantic Differential Measurements

The general validity of the Semantic Differential for measuring attitudes is supported by the fact that it yields predicted results when it is used for this purpose and also supported by studies which compare Semantic Differential measurements with attitude measurements on traditional scales (Heise, 1970, p. 246).

Heise concluded his review by noting that:

Perhaps the most important general contribution of the Semantic Differential is the provision of a single attitude space for all stimuli. This permits analyses, comparisons, and insights that were virtually impossible with traditional instruments (p. 251).

Measurement of Academic Achievement

The level of academic achievement was estimated by using the Science Research Associates (SRA) Achievement Series (4-9), multilevel edition. Form C (blue level) was administered to all pupils in May, 1972. Buros (1972) reported that:

The commendable features of the SRA Achievement Series are many; the less than commendable, few. The series compares favorably with other series of its type currently available (p. 18).

Analysis of the Data

Responses of the 418 subjects to the SD instrument were summed across the sixteen bipolar scales for each of the nine concepts. These totals were then subjected to a principal-component factor analysis procedure, with varimax

rotation.¹ Using the same computer program just cited, factor scores were computed for each of the subjects.

A three-way analysis of variance model by sex, grade level, and school SES was performed using the weighted scores for each factor. Pearson's product-moment correlations were computed using the weighted scores for each factor and the total score received on the SRA Achievement Series for each of the subtests, arithmetic, language arts, and reading.

Hypotheses

1. There is no significant relationship between the Mexican American pupils' attitudes toward the school attended as measured by a version of the Semantic Differential and the level of academic achievement as measured by the SRA Achievement Series.

2. There is no significant difference between Mexican American children from a school in a neighborhood low on socioeconomic indicators and of Mexican American children from a middle-class school in a neighborhood higher on the same indicators in the meanings they attach to school-related concepts.

¹STATJOB, University of Wisconsin Computer Center, 1968, as adjusted to run in the UNIVAC 1108 at the University of Houston Computer Center.

3. There is no significant difference between fourth- fifth- and sixth-grade Mexican American children in the meanings they attach to school-related concepts.

4. There is no significant difference between Mexican American boys and Mexican American girls in the meanings they attach to school-related concepts.

5. There is no significant interaction between school socioeconomic level and grade level of pupils in the meanings they attach to school-related concepts.

6. There is no significant interaction between school socioeconomic level and sex of pupils in the meanings they attach to school-related concepts.

7. There is no significant interaction between grade level and sex of the pupils in the meanings they attach to school-related concepts.

8. There is no significant interaction among socioeconomic level of school, grade level, and sex of pupils in the meanings they attach to school-related concepts.

Analysis of hypothesis one was made using zero-order correlations. Analyses of hypotheses two through eight were made using a three-way analysis of variance design. Each hypothesis was tested at the .05 level of significance.

CHAPTER IV

RESULTS OF THE STUDY

The purpose of this chapter is to present the results of the data in this investigation. The presentation is made in two parts: first, the results of the factor analysis of the Semantic Differential and second, the analyses of the factor scores of the Semantic Differential, with the testing of the research hypotheses in the null form.

Factor Analysis

A total of 418 Mexican American children in the fourth- fifth- and sixth-grades of two elementary schools responded on sixteen adjective scales to each of nine stimulus phrases on the Semantic Differential instrument. Using selected socioeconomic indicators, one school was designated a low SES school, while a comparison school was selected to represent a middle SES school.

The responses were subjected to a principal-component factor analysis with varimax rotation to identify clusters of adjective scales that comprised reasonable dimensions of connotative meaning for the subjects in the study. In Table 3 rotated factor matrices were given for the children in the two schools in terms of the two most prominent factors. Factor I was by far the most prominent, accounting for 45% of the total variance. Twelve adjective scales had

Table 3

Rotated Factor Matrix for 418 Fourth- Fifth-
and Sixth-Grade Mexican American Pupils

Scales/Factor	Evaluative	Dynamism
Bad - Good	.851	.142
Friendly - Unfriendly	.848	.176
Unfair - Fair	.804	.140
New - Old	.551	.086
Strong - Weak	.661	.462
Heavy - Light	-.024	.772
Sad - Happy	.839	.221
Interesting - Boring	.812	.181
Foolish - Wise	.610	.185
Little - Big	.161	.700
Nice - Mean	.885	.096
Clean - Dirty	.774	.227
Relaxed - Worried	.629	.123
Slow - Fast	.308	.475
Terrible - Wonderful	.839	.173
Moving - Still	.088	.375
Eigenvalues	7.822	1.324

substantial loadings on Factor I and were selected to constitute the evaluative dimension, frequently found by Osgood (Osgood, Suci, & Tannenbaum, 1957).

Factor II accounted for 12% of the total variance. Both the activity and potency dimensions that Osgood (Osgood, Suci, & Tannenbaum, 1957) had reported were found to load on this factor. This phenomenon was noted earlier by Miron and Osgood (1966) in their survey of the SD technique and was labeled the dynamism factor. The scales which had the highest loadings on this dimension were: HEAVY-LIGHT, LITTLE-BIG, SLOW-FAST, and MOVING-STILL.

After the varimax rotation procedure was applied to the data, weights were generated for each of the adjective scales for the two factors. Table 4 shows the weights that were produced and used to yield two factor scores for each subject. Eighteen respondents were chosen at random by grade and sex for each school to comprise a total of 216 subjects that were used in the testing of the research hypotheses.

Analyses of the Factor Scores

Pearson's product-moment correlation was the statistical technique used to determine the degree of relationship between attitudes toward specific stimulus phrases concerning the school and academic achievement.

Table 4
Weights for Raw Data on Each Factor

Scales/Factor	Evaluative	Dynamism
Bad - Good	.13478	-.06044
Friendly - Unfriendly	.12812	-.03695
Unfair - Fair	.12646	-.05362
New - Old	.08842	-.04331
Strong - Weak	.03902	.19646
Heavy - Light	-.14917	.54019
Sad - Happy	.11786	-.00356
Interesting - Boring	.12033	-.02676
Foolish - Wise	.08120	.01416
Little - Big	-.10032	.45489
Nice - Mean	.15004	-.09905
Clean - Dirty	.10444	.01264
Relaxed - Worried	.09637	-.03244
Slow - Fast	-.03043	.27166
Terrible - Wonderful	.12691	-.03704
Moving - Still	-.05344	.24333

Table 5 displays the correlation coefficients for pupils enrolled in the middle SES school. Only a negative relationship between Factor I, evaluative and the SRA Achievement Series reading subtest was significant at the .05 level for the Mexican American pupils in this school.

Table 5

Relationship Between Attitude Scores and
Academic Achievement (Middle SES School)

	2	3	4	5
1 Factor I (evaluative)	.001	-.077	-.160	-.238*
2 Factor II (dynamism)		-.040	-.119	.070
3 Arithmetic			.770*	.653*
4 Language Arts				.661*
5 Reading				

* Significant at .05 level

Table 6 displays the correlation coefficients for pupils enrolled in the low SES school. Positive relationships between Factor I, evaluative and the SRA Achievement Series language arts and reading subtests were significant at the .05 level for the Mexican American pupils in the low SES school. Therefore, null hypothesis one concerning the

relationship between academic achievement and the Mexican American pupil's attitude toward the school he attended was rejected for Factor I, evaluative.

Table 6
Relationship Between Attitude Scores and
Academic Achievement (Low SES School)

	2	3	4	5
1 Factor I (Evaluative)	-.024	.152	.195*	.177*
2 Factor II (Dynamism)		.061	.026	.062
3 Arithmetic			.738*	.743*
4 Language Arts				.754*
5 Reading				

* Significant at .05 level

The three-way analysis of variance for Factor I, the evaluative factor, resulted in the F-ratios shown in Table 7. Four of these F-ratios were significant at or beyond the .05 level. Detailed analyses following significant findings were made through a t-test for differences among several means (Bruning & Kintz, 1968). Also, the relationship between different variances was made using the coefficient of intraclass correlation, R (Haggard, 1968). (see Appendix C)

Table 7
Analysis of Variance for
Factor I (Evaluative)

Source	df	ms	F	R
Total	215	1.017		
Between	11	3.723		
Grade	2	10.707	12.2987*	.14
SES	1	.132	.1518	-
Sex	1	4.306	4.9461*	.04
Grade X SES	2	4.107	4.7173*	.11
Grade X Sex	2	.925	1.0623	-
SES X Sex	1	.004	.0045	-
Grade X SES X Sex	2	2.517	2.8916*	.10
Within	204	.871		

* Significant at .05 level

Significant differences were shown for the main effects, grade level and sex of subject, in responding to the Semantic Differential. The intraclass coefficient of correlation, R, indicated that 14% and 4% of the variance of the SD scores were accounted for by these variables, respectively. Examination of the mean scores for male and female subjects showed a significant higher value for Mexican American females (mean difference = .2824, C. diff. = .2489). Therefore,

null hypothesis four concerning the relationship between sex of subjects and the meanings they attached to school-related concepts was rejected for Factor I.

Table 8 shows the comparison of means for the main effect, grade level. It was found that pupils in grade four viewed school-related concepts significantly different from pupils in both grade five and grade six. Therefore, null hypothesis three concerning the relationship between grade level of subjects and the meanings they attached to school-related concepts was rejected for Factor I.

Table 8
Comparison of Means of Main Effects,
Grade Level, Factor I (Evaluative)

	4	5	6
Grade 4		.7461*	.5422*
Grade 5			.2039
Grade 6			
C. diff. = .3038		* significant at .05 level	

The F-ratio for the first order interaction of grade level and SES of the school was found to be significant at the .01 level. The relationship between the variables in

terms of the SD scores was characterized by an intraclass correlation coefficient of .11. A graphic presentation of the first order interaction is presented in Figure 1 (see page 45). Analysis was done to determine which specific means were significantly different from each other. The results, in Table 9, revealed nine of the possible fifteen differences between means to be significant at the .05 level.

Table 9

Comparison of Means of First Order Interaction,
Grade Level by School, Factor I (Evaluative)

	1	2	3	4	5	6
1 Grade 4 Medium		.1835	.6150*	1.0608*	.8744*	.3935
2 Grade 4 Low			.4315*	.8773*	.6909*	.2100
3 Grade 5 Medium				.4458*	.2594	.2215
4 Grade 5 Low					.1864	.6673*
5 Grade 6 Medium						.4809*
6 Grade 6 Low						
C. diff. = .4312			*significant at .05 level			

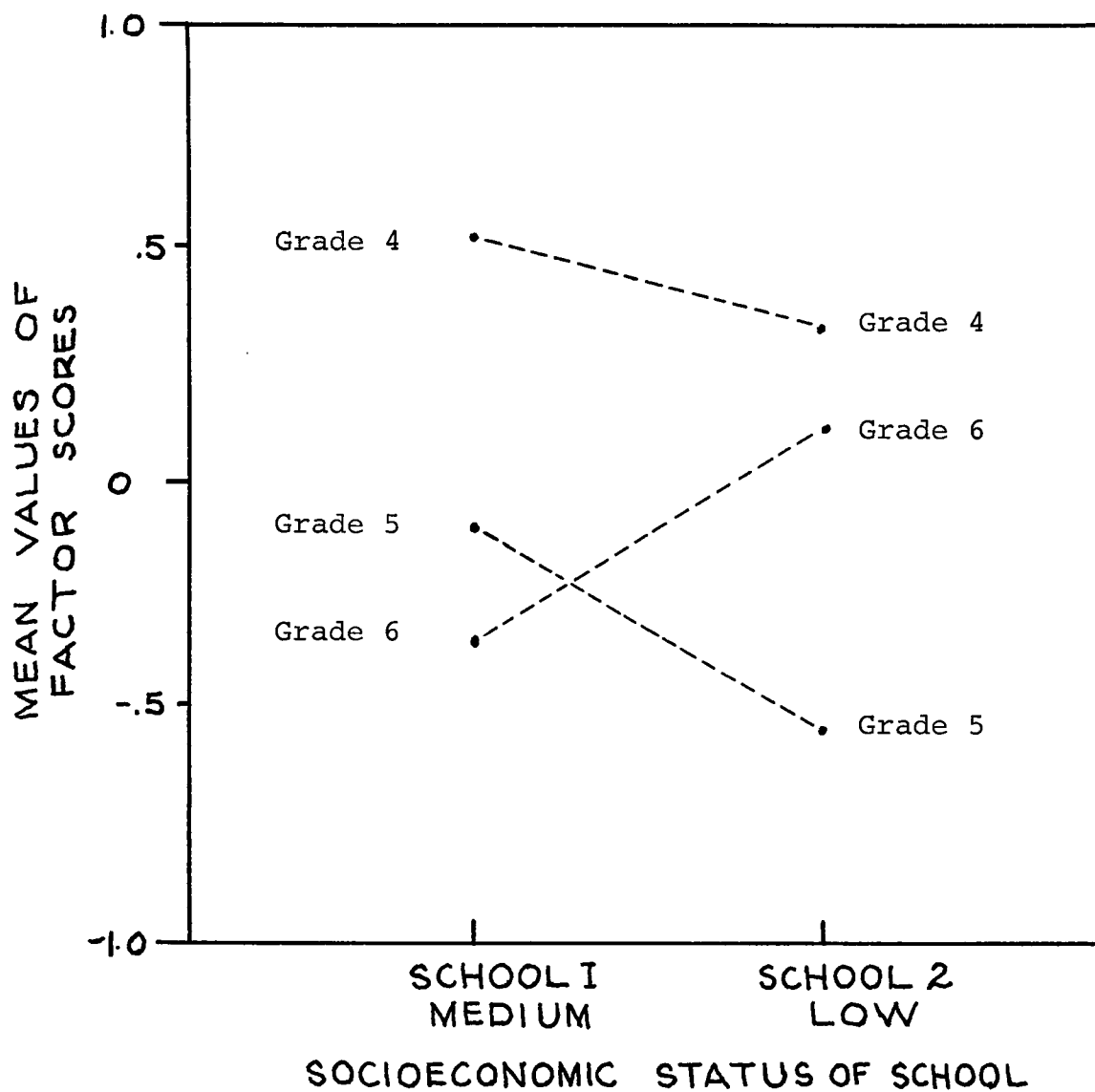
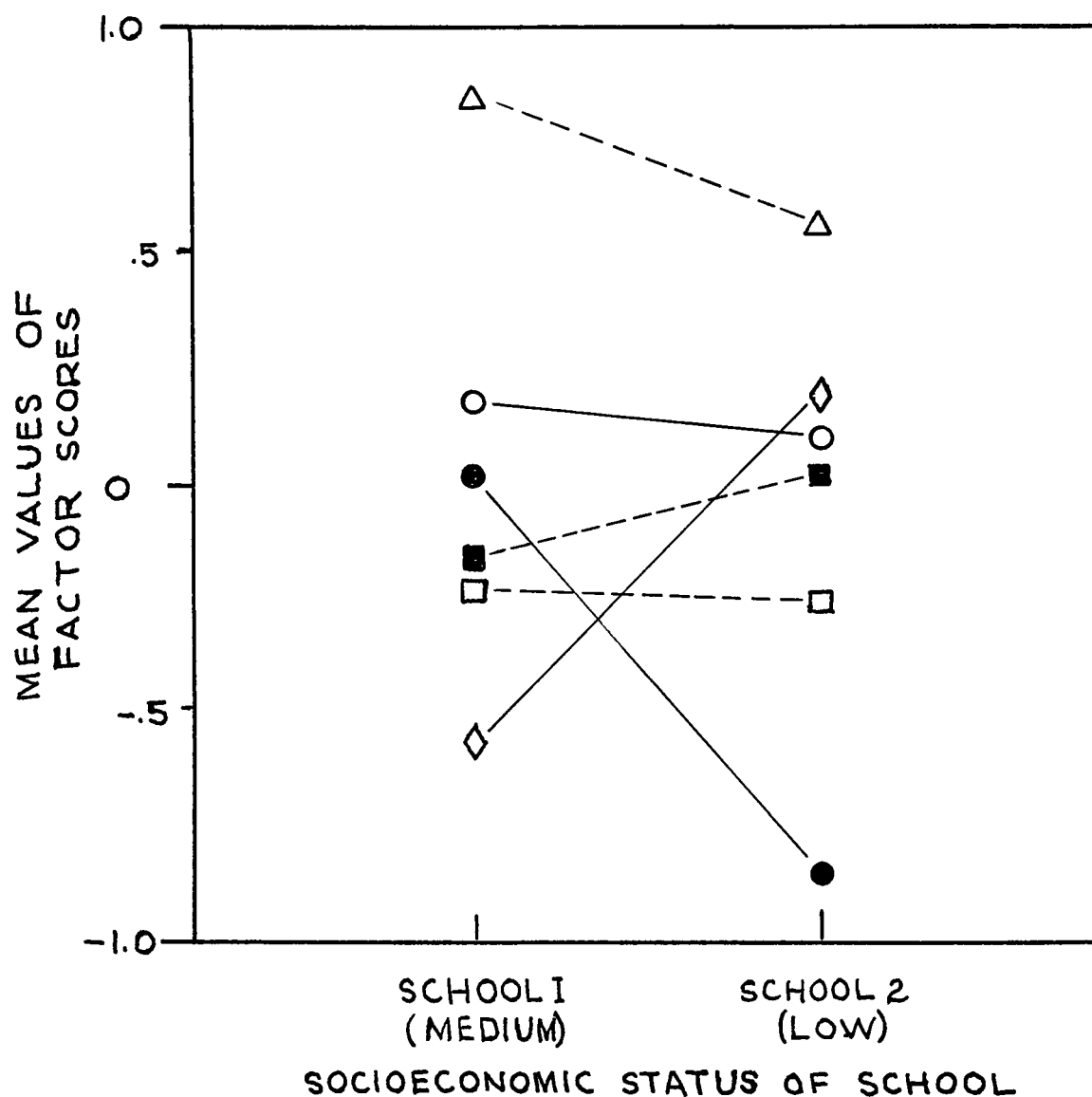


Fig. 1. Interaction school by grade for Factor I (evaluative).

The mean for the fifth-grade pupils in the low SES school was significantly different from four of the five group means in their responding to the SD. Null hypothesis five concerning interaction between SES of school and grade level of pupils in the meanings they attached to school-related concepts was rejected for Factor I.

The R value for the second order interaction, grade level by sex by SES of school in terms of the SD scores was found to be .10. The interaction is shown graphically in Figure 2 (see page 47). Significant differences between means were found in twenty-six of the possible sixty-six cases. The results of the t-Test are indicated in Table 10 (see page 48). Both the fourth-grade Mexican American girls from the middle SES school and the fifth-grade Mexican American boys from the low SES school had significant mean differences from ten of the eleven groups in their marking of the SD. Null hypothesis nine concerning interaction between grade level, SES of school, and sex of subjects in the meanings they attached to school-related concepts was rejected for Factor I.



LEGEND	
○	GR 4 ML
△	GR 4 FML
●	GR 5 ML
□	GR 5 FML
◇	GR 6 ML
■	GR 6 FML

Fig. 2. Interaction school by grade by sex for Factor I (evaluative).

Table 10

Comparison of Means of Second Order Interaction, Grade
by School by Sex, Factor I (Evaluative)

		2	3	4	5	6	7	8	9	10	11	12
1	Gd4ML1	.0848	.6385*	.3564	.1808	1.0510*	.4105	.4320	.7579*	.1950	.3487	.1680
2	Gd4ML2		.7233*	.4412	.0960	.9662*	.3257	.3472	.6767*	.1043	.2639	.0832
3	Gd4FML1			.2821	.8193*	1.6895*	1.0490*	1.0705*	1.3964*	.6190*	.9872*	.8065*
4	Gd4FML2				.5372	1.4074*	.7669*	.7884*	1.1179*	.3369	.7051*	.5244
5	Gd5ML1					.8702*	.2297	.2512	.5807	.2003	.1679	.0128
6	Gd5ML2						.6405*	.6190*	.2895	1.0705*	.7023*	.8830*
7	Gd5FML1							.0215	.3510	.4300	.0618	.2425
8	Gd5FML2								.3295	.4515	.0833	.2640
9	Gd6ML1									.7810*	.4128	.5935
10	Gd6ML2										.3682	.1875
11	Gd6FML1											.1807
12	Gd6FML2											

C. diff. = .6096

*significant at .05 level

Gd, Grade
ML, Male
FML, Female

1, Middle SES School
2, Low SES School

The analysis of variance for Factor II, the dynamism factor, resulted in the F-ratios and R values shown in Table 11. Three of these F-ratios were significant beyond the .05 level.

Table 11
Analysis of Variance for
Factor II (Dynamism)

Source	df	ms	F	R
Total	215	.883		
Between	11	1.900		
Grade	2	2.815	3.4010*	.03
SES	1	5.610	6.7780*	.05
Sex	1	.069	.0836	-
Grade X SES	2	.945	1.1416	-
Grade X Sex	2	2.953	3.5674*	.07
SEX X Sex	1	.482	.5821	-
Grade X SES X Sex	2	.659	.7961	-
Within	204	.828		

* Significant at .05 level

A significant difference was shown for the main effect, grade level, with an R value of .03. Analysis was done to determine which specific means were significantly different from each other. The results of the analysis as displayed in Table 12, revealed that pupils in grade six

Table 12
Comparison of Means of Main Effects,
Grade Level, Factor II (Dynamism)

	4	5	6
Grade 4		.0079	.3463*
Grade 5			.3384*
Grade 6			
C. diff. = .2979	*significant at .05 level		

viewed school-related concepts significantly different from pupils in both grade four and grade five. Therefore, null hypothesis three concerning the relationship between grade level of subjects and the meanings they attached to school-related concepts was rejected for Factor II.

The F-ratio for the main effect, SES of the school, was found to be significant at the .01 level and to have an R value of .05. Examination of the mean scores for the middle and low SES school showed a significant higher value for the low SES school (mean difference = .3223, C. diff. = .2391). Therefore, null hypothesis two concerning the relationship between school SES of pupils and the meanings they attached to school-related concepts was rejected for Factor II.

The first order interaction for Factor II, grade level by sex, was shown in Figure 3 (see page 52). The relationship between the variables in terms of the SD scores was characterized by an intraclass correlation coefficient of .07. The analysis of mean differences is presented in Table 13. The results revealed four of the possible fifteen

Table 13
Comparison of Means of First Order Interaction,
Grade Level by Sex, Factor II (Dynamism)

	1	2	3	4	5	6
1 Grade 4 Male		.4199*	.3041	.1316	.7337*	.3789
2 Grade 4 Female			.1158	.2883	.3138	.0410
3 Grade 5 Male				.1725	.4296*	.0748
4 Grade 5 Female					.6021*	.2473
5 Grade 6 Male						.3548
6 Grade 6 Female						
C. diff. = .4194			*significant at .05 level			

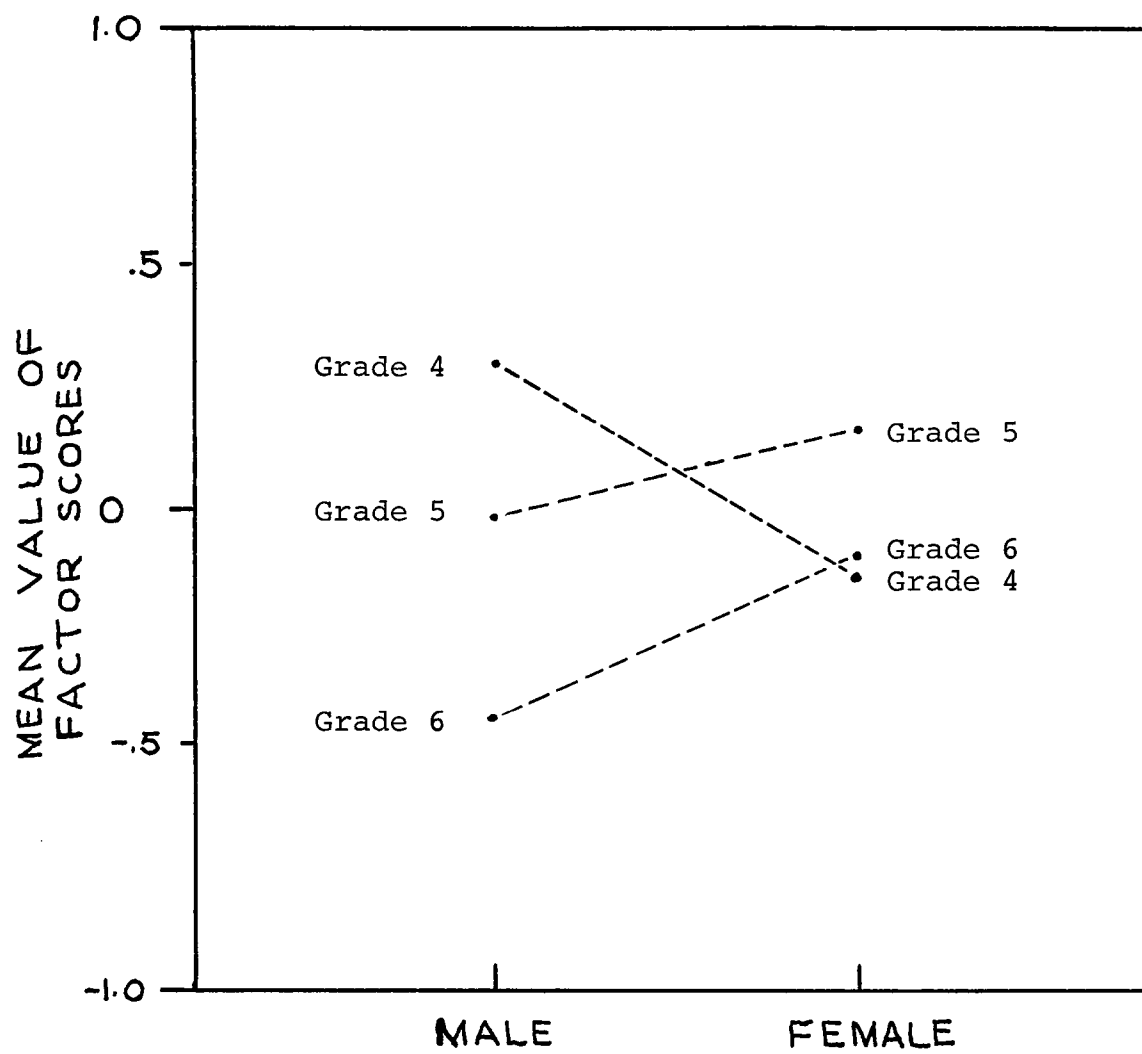


Fig. 3. Interaction grade by sex for Factor II (dynamism).

differences between means to be significant at the .05 level. Therefore, null hypothesis seven concerning interaction between grade level and sex of the pupils in the meanings they attached to school-related concepts was rejected for Factor II.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purposes of this study were, first, to investigate the degree of relationship between the Mexican American pupils' attitudes toward the school attended and the level of academic achievement, and second, to investigate whether Mexican American pupils attached different meanings (attitudes) to school-related concepts when grouped according to socioeconomic level, sex, and grade level.

A total of 418 Mexican American children in the fourth- fifth- and sixth-grades of two elementary schools responded on sixteen bipolar scales to each of nine stimulus phrases. Using selected socioeconomic indicators, one school was designated a low SES school, while a comparison school was selected to represent a middle SES school. Academic achievement was measured by the SRA Achievement Series, which yielded scores on separate areas of achievement.

Following Osgood's Semantic Differential technique, the responses to the attitude instrument were subjected to a principal-component factor analysis. Two factors, named evaluative and dynamism, were extracted from the data matrices of the two schools. Factor scores were obtained for each subject on the two factors. Eighteen respondents were

chosen at random by grade and sex from each school to comprise a total of 216 subjects that were used in the testing of the eight hypotheses in the study. Each hypothesis was tested at the .05 level of significance.

Hypotheses

1. There is a significant relationship between the Mexican American pupil's attitude toward the school he attends and his level of academic achievement. Hypothesis one was supported for the evaluative factor for Mexican American pupils in both the middle and low SES schools. The pupils in the middle SES school had a low negative relationship between Factor I and the SRA reading subtest. The pupils in the low SES school had a slight positive relationship between Factor I and the SRA language arts and reading subtests. Hypothesis one was not supported for the dynamism factor.

2. There is a significant difference between Mexican American children from a school in a neighborhood low on socioeconomic indicators and of Mexican American children from a middle-class school in a neighborhood higher on the same indicators in the meanings they attach to school-related concepts. Hypothesis two was supported for the dynamism factor. Mexican American pupils in the low SES school had higher scores on the SD for the dynamism factor than did Mexican

American pupils from the middle SES school. Hypothesis two was not supported for the evaluative factor.

3. There is a significant relationship among fourth- fifth- and sixth-grade Mexican American children in the meanings they attach to school-related concepts. Hypothesis three was supported for the evaluative and dynamism factors. On the evaluative factor, Mexican American pupils in grade four had higher scores on the SD than did Mexican American pupils in grade five and grade six. On the dynamism factor, Mexican American pupils in grade six had lower scores on the SD than Mexican American pupils in grade four and grade five.

4. There is a significant difference between Mexican American boys and Mexican American girls in the meanings they attach to school-related concepts. Hypothesis four was supported for the evaluative factor. Mexican American females had higher scores on the SD for the evaluative factor than did Mexican American males. Hypothesis four was not supported for the dynamism factor.

5. There is a significant interaction between school socioeconomic level and grade level of pupils in the meanings they attach to school-related concepts. Hypothesis five was supported for the evaluative factor. Mexican American fifth-grade pupils in the low SES school were significantly lower in their marking of the SD for the evaluative factor than four

of the five remaining interactions. Hypothesis five was not supported for the dynamism factor.

6. There is a significant interaction between school socioeconomic level and sex of the pupils in the meanings they attach to school-related concepts. Hypothesis six was not supported for the evaluative or dynamism factors.

7. There is a significant interaction between grade level and sex of the pupils in the meanings they attach to school-related concepts. Hypothesis seven was supported for the dynamism factor. Mexican American sixth-grade male pupils were significantly lower in their marking of the SD for the dynamism factor than fourth- and fifth-grade Mexican American males and fifth-grade Mexican American females. Hypothesis seven was not supported for the evaluative factor.

8. There is a significant interaction among socioeconomic level of school, grade level, and sex of pupils in the meanings they attach to school-related concepts. Hypothesis eight was supported for the evaluative factor. Mexican American fourth-grade girls from the middle SES school were significantly higher in their marking of the SD for the evaluative factor than ten of the eleven remaining interactions. Further, Mexican American fifth-grade boys from the low SES school were significantly lower in their marking of the SD for the evaluative factor than ten of the eleven remaining

interactions. Hypothesis eight was not supported for the dynamism factor.

Conclusions and Discussion

The results of this study were reported with the understanding that self-report instruments would have varying limitations (e.g., a positive score could reflect high valuation or a strong liking). However, in the interpretation of the data presented in this study it was assumed that positive evaluation of a dimension would be related to favorable attitudes. On the basis of obtained results, the following conclusions were made:

1. Mexican American students' perceptions of school, and various aspects of school, were related to achievement as measured by standardized achievement tests. It should be noted that, although the correlations were significant at the .05 level for Factor I, evaluative, they were low and suggested little relationship between the variables. The negative correlation shown by pupils in the middle SES school had been interpreted as symptomatic of the low achievers' rigid defenses that perhaps masked underlying feelings (Greenberg et al., 1965). The findings were in general agreement with Malpass (1953); Neale, Gill, and Tismer (1970); and Shepps and Shepps (1971). Since each of these

investigators used a different type of attitude instrument, there is some indication that attitudes toward school are a predictor of school achievement. However, the significant correlations obtained in these and the present study were low and were found primarily in the area of reading achievement. It was concluded that academic achievement is determined more by other factors than how pupils feel toward school (e.g., socioeconomic level of the family). In a recent report by the Corpus Christi Independent School District (1972), the effect of socioeconomic level was shown to be a major influence on the achievement level of students.

2. Comparisons between the two schools indicated that Mexican American pupils in a middle SES school did not perceive school-related concepts more positively than did Mexican American pupils in a low SES school. Other studies which have considered the relationship between attitudes toward school and socioeconomic status have come to a similar conclusion (Greenberg et al., 1965; Neale & Proshek, 1967; Godbold, 1968; Berk, Rose, & Stewart, 1970). Interestingly, the study that appeared to contradict these findings was one of the few done on Mexican American pupils (LaBelle, 1969). LaBelle found that Mexican American middle and high SES level students perceive school-related concepts more positively, potently, and actively than do low SES level students.

LaBelle also concluded that there were similar differences among the Anglo sample with regard to attitudes toward school and socioeconomic status.

One possible explanation for the finding in the present study could be that the low SES Mexican American pupils have offset occupation and residence differences of their parents with special programs (e.g., Head Start and/or Follow-Through). LaBelle (1969) did not discuss whether the Mexican American pupils in his study were participating in any special programs. This suggests that further research in this area is needed.

The higher ratings assigned by the low SES Mexican American pupils on the dynamism factor indicated that these children perceived school-related concepts more strongly and more actively than did middle SES Mexican American pupils. This variation between the evaluative and dynamism ratings of the Mexican American pupils in the low SES school may be related to their value orientation, i.e., adhering to prevailing values of society, while maintaining anomic behavior. It also appeared that to understand the nature of the Mexican American culture and its interrelations with personality, the experience of acculturation must be taken into consideration. Simmons (1970), in his article "The Mutual Images and Expectations of Anglo-Americans and Mexican-Americans," wrote that

the Mexican American culture represents the most effective means that Mexican Americans have been able to develop for coping with their changed environment. Only if new ways appear to be more meaningful than the old and only if Mexican Americans are given opportunity to acquire the new ways and use them, will they exchange old ways for new.

3. The data in this study suggested that change in attitude toward school-related concepts appeared to be a function of grade level. However, it should be noted that the intraclass coefficient of correlation R was low, indicating that a small per cent of the variance of the SD scores was accounted for by the grade level of the pupil.

In general, pupils' attitudes toward school were increasingly negative as grade in school increased. This finding was consistent with other studies (Neale & Proshek, 1967; Badwal, 1969; Neale, Gill, & Tismer, 1970) and suggested that perhaps children learn to like school less as they progress through the grades or that as children grow older they report all evaluations somewhat more negatively.

The interaction effect of grade and school was perhaps more interesting than the predicted main effect differences. Whereas Mexican American pupils in the middle SES school make increasingly negative responses as grade in school increased, the Mexican American pupils in the low SES school

did not. The responses of the fifth-grade pupils were the most negative, with little difference between the responses of the fourth- and sixth-grade pupils. Further discussion with the principal of the low SES school gave little indication as to why the sixth-grade pupils, particularly boys, had more positive attitudes toward school-related concepts.

One possible explanation for the difference in responses by grade in the low SES school was the influence of special funded programs (e.g., Head Start and Follow-Through). This interpretation was difficult, however, because of the varying amounts of pupil participation and the differences in program objectives.

4. Mexican American females viewed school-related concepts more positively than did Mexican American males. Although this finding was consistent with the prediction, the degree of the relationship R was slight. The finding was also not a function of school SES and therefore, was in agreement with recent studies made on the lower socioeconomic pupil, i.e., that sex differences in attitudes were not as marked for low SES children as for middle SES children. It has been suggested that sex-role differences with respect to education would not be as important to pupils in culturally disadvantaged schools as in middle-class schools (Neale & Proshek, 1967).

A review of the findings of this study leads to the conclusion that grade level and sex of the pupil were much more important indicators of attitudes toward school among fourth- fifth- and sixth-grade Mexican American pupils than academic achievement and social class. The findings were in general agreement with those of previous investigations, but point to several areas for further research.

Recommendations for Further Study

The conclusions that were drawn from this investigation provided the following suggestions for future research.

It is recommended that an investigation be made of the effect of special programs, i.e., Head Start, bilingual, and Follow-Through, on the attitudes toward school of Mexican American pupils. Because of differences in program emphasis, a study should be made of the affective components that may or may not be part of these programs. Research should be conducted into methods of teaching and their effect on attitudes.

A study should be made of attitudes of the pupil as influenced by the motivational patterns of the family and of attitudes of the pupil as a function of ethnic groups. Follow-up research should be carried on to determine if students continue to be increasingly negative in their responses to self-report instruments.

It is recommended that school districts consider the SD technique as a method of evaluation of pupils' attitudes in the elementary grades. It is also recommended that the SD technique be used in evaluation of the affective component of compensatory educational programs. With large samples, the investigator could use mean factor scores for each stimulus phrase rather than a total factor score. This would give an opportunity for a more in-depth understanding of pupils' feelings toward a particular stimulus (e.g., myself in school).

It is further recommended that the SD technique could be used at the primary level in order to examine the attitudes of these pupils, perhaps comparing their attitudes to those of pupils at other grade levels. The development of further insights into the psychological variables that have been associated with attitudes should be helpful in current efforts to improve academic attainment among culturally different children.

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APPENDIX A: Attitude Instrument

Teacher _____ Module or Grade _____

Name _____ Birthday _____ 19__ Boy__ Girl__

bad _____ : _____ : _____ : _____ : _____ good

friendly _____ : _____ : _____ : _____ : _____ unfriendly

unfair _____ : _____ : _____ : _____ : _____ fair

new _____ : _____ : _____ : _____ : _____ old

strong _____ : _____ : _____ : _____ : _____ weak

heavy _____ : _____ : _____ : _____ : _____ light

sad _____ : _____ : _____ : _____ : _____ happy

interesting _____ : _____ : _____ : _____ : _____ boring

foolish _____ : _____ : _____ : _____ : _____ wise

little _____ : _____ : _____ : _____ : _____ big

nice _____ : _____ : _____ : _____ : _____ mean

clean _____ : _____ : _____ : _____ : _____ dirty

relaxed _____ : _____ : _____ : _____ : _____ worried

slow _____ : _____ : _____ : _____ : _____ fast

terrible _____ : _____ : _____ : _____ : _____ wonderful

moving _____ : _____ : _____ : _____ : _____ still

APPENDIX B: Directions for Administering
the Attitude Instrument

Directions for administering the Semantic Differential instrument: (read all directions in capitals to pupils)

Do not hand-out any materials until the example has been done with the pupils.

WE ARE GOING TO PLAY A WORD GAME TODAY. THE WORDS WILL HAVE CERTAIN MEANINGS ONLY TO YOU. THERE ARE NO RIGHT OR WRONG ANSWERS. AN ANSWER IS RIGHT IF IT IS TRUE OF YOU. I WILL WRITE A GROUP OF WORDS ON THE BOARD, AND THEN YOU WILL COPY THEM ON THE PAPER THAT I WILL GIVE TO YOU. LET'S DO A GROUP OF WORDS ON THE BOARD, AND YOU SEE WHAT THEY MEAN TO YOU.

Example: Watching TV (write on board)

NOW WATCH HOW YOU WILL TELL ME WHAT THESE WORDS (WATCHING TV) MEAN TO YOU:

FIRST, WE ARE GOING TO LOOK AT SOME OTHER WORDS THAT ARE ON A LINE. (put the following scale on the board)

bad _____ : _____ : _____ : _____ : _____ good

DO YOU NOTICE THAT THE WORDS ARE OPPOSITES?

NOW LISTEN CAREFULLY: IF YOU FEEL THAT THE WORDS (WATCHING TV) ARE VERY CLOSE TO ONE END OF THE LINE (SCALE), YOU SHOULD PLACE AN X AS FOLLOWS.

(show one X
at a time)

IF YOU FEEL THAT THE WORDS (WATCHING TV) ARE FAIRLY CLOSE TO ONE END OF THE LINE (SCALE), YOU SHOULD PLACE YOUR X AS FOLLOWS:

IF YOU FEEL THAT THE WORDS (WATCHING TV) ARE EQUALLY (SO-SO) RELATED TO BOTH SIDES OF THE LINE (SCALE), THEN YOU SHOULD PLACE YOUR X IN THE MIDDLE SPACE LIKE THIS:

ARE THERE ANY QUESTIONS?

Repeat the instructions as often as necessary. The following are important for the pupils to note.

1. Place your check-marks in the middle of spaces, not on the boundaries.
2. Be sure you check every scale for every group of words--do not omit any.
3. Never put more than one check-mark on a single line.

I AM GOING TO GIVE YOU SOME PAPER NOW, AND I WILL EXPLAIN WHAT I WANT YOU TO DO. DO NOT WRITE ANYTHING UNTIL I TELL YOU TO DO SO. Important note to pupils: I'M GOING TO TAKE THESE PAPERS WITH ME TODAY, AND NO ONE HERE AT SCHOOL WILL SEE THEM.

After the pupils have the sheets, go over all the scales before putting any concepts on the board---point out again that the words are opposites.

Concepts (present in this order only!)

MY SCHOOL BUILDING

READING A BOOK

MYSELF IN SCHOOL

MY PRINCIPAL

WORKING ARITHMETIC PROBLEMS

MY CLASSROOM

MY TEACHER

WRITING A STORY

MY CAFETERIA

APPENDIX C: Coefficient of Intraclass
Correlation, R

This Appendix was presented for those readers interested in the coefficient of intraclass correlation, R (Haggard, 1958). Haggard defined R as:

the measure of the relative homogeneity of the scores within the classes in relation to the total variation among all the scores in the table (p. 6).

The formula used in this study was:

$$R = \frac{BCMS - WMS}{BCMS + (k-1)WMS} \quad (\text{Haggard, 1958, p. 11})$$

where, k = number of members in each class

BCMS = between-classes mean square

WMS = within-classes mean square

Some Properties of R:

1. An obtained R may take a value between +1 and -1/(k-1), where k is the number of members in each class (p. 17).
2. The relation of R to F is monotonic; that is, R and F increase or decrease together (p. 19).
3. The level of significance of R is identical with that of the corresponding F (p. 19).