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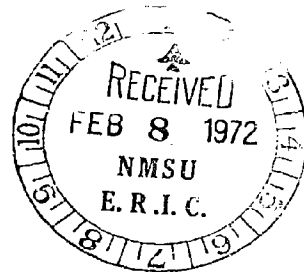
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ABSTRACT

Literature pertaining to research done on academic achievement of Mexican American students is reviewed in this paper. The literature deals with such variables as socioeconomic, physical, psychological, and cultural aspects; language factors; attitudes; language development; and environment. A 15-page discussion of recommendations for improving curriculum, instruction, and teacher education for educating the Mexican American is included. Also included is a bibliography containing over 200 relevant citations.  
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VARIABLES AFFECTING ACHIEVEMENT OF  
MIDDLE SCHOOL MEXICAN AMERICAN STUDENTS

Prepared for the  
University of Texas at El Paso Component of  
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by

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## INTRODUCTION

In any model for curriculum design or instruction an important component is that of assessing students' needs. Identifying students' interests, aspirations, aptitudes, home and family background, levels of achievement, and physical, cognitive and emotional levels of development are but a few of the variables that may be considered in describing a student or groups of students in order to make such an assessment.

The description, if it is to be useful in such a model, must be as objective as possible. Perhaps no description can be completely objective since the person who is doing the observation, *i.e.* reducing the thing to be analyzed into its elements and noting the relationships of the elements to each other and to the whole, brings to the observation a particular frame of reference and even bias. Inherent in the description, at times, depending on the degree of bias, are overt and covert implications, for learning and teaching, as in the case under discussion. For example, in the past, the Mexican-American student has been described with the intention that certain "problems" be alleviated. These problems by and large have been related to the persistent and consistent lack of academic achievement on the part of children of this ethnic minority. Consequently, many descriptions have been unnecessarily biased because of the observer's frame of reference in which the students themselves were perceived as the problem. Such descriptions tend to focus on the group's weak points, and induce implications for curriculum design and/or instruction based on changing the student in terms of "remediation" or "acculturation." One case in point is that students in the past were given achievement tests in reading, writing and speaking English. The low scores were interpreted to

mean that lack of practice of these skills resulted from insistence of the students in clinging to their mother tongue--Spanish. In an effort to combat what was considered one of the main factors in underachievement, the speaking of Spanish was forbidden. Other factors related to learning English as a second language, related to early childhood learning, and factors of self-concept and individual worth, were not considered.

The purpose of this review of the literature pertaining to the characteristics of middle-school Mexican-American students is to identify variables that appear to be relevant to learning and consider the descriptions available in the literature relative to these students in terms of these variables. In addition, variables that appear to have special significance for students of an ethnic minority who have to learn to think and learn in two languages, and who are generally classed in the lower socioeconomic level of society are also identified and descriptions of these students are made in terms of these variables.

A further word on description and its usage is needed at this point. One danger of trying to describe people is that of creating a stereotype of one kind when one is trying to erase a stereotype of another. One of man's techniques for storing experiences and information is to classify and categorize, and eventually conceptualize. He does this by first describing, noting similarities and differences and then forming classes. He does this to a large extent with people. The danger in forming classes is in not realizing that people are multi-faceted and therefore can be classified in a diversity of ways. A person forms categories into which he may classify people, but if he is mature, these categories are dynamic and change as he experiences new contacts with

people. And so it is with this new description of the Mexican-American. There is no wish to create a new stereotype. The following description is based on reports in the literature that give insights of characteristics that Mexican-American children may demonstrate as a group. These insights can be used to evaluate present conditions and give direction to change if it is desirable. In working with individual students, however, one needs to bear in mind that although the probabilities are high that, say, a particular Mexican-American student is poor, it is nevertheless true that there is a probability greater than zero that he is affluent. The same comments may be made of the other factors considered in describing these students. Group statistics give insights into problems, but when working with individual students, further depth into the individuals needs, strengths and weaknesses is necessary.

It is hoped that by choosing as a frame of reference learning factors rather than "learning problems" a basis that is relatively free of bias can be achieved for this description.

The description is to be done in four broad categories: socio-economic, physical, psychological and cultural aspects. Following the descriptions in these broad areas recommendations for curriculum design and/or instruction are reviewed in addition to stating further implications and recommendations as seen by the author.

## SOCIO-ECONOMIC ASPECTS

In the southwest area of the United States there are approximately 1,750,000 primary intermediate and secondary school Mexican-American students (Galarza, Gallegos, and Samora, 1969). The median number of school years attended by persons fourteen years of age and above of this ethnic group are: Arizona 8.3; California 9.2; Colorado 8.7; New Mexico 8.8; and Texas 6.7 as compared to that of the nation as a whole which is 12.1. In addition to high drop-out rates among Mexican-American students, many are two, three, and even five years behind in school (Carter, 1970; Pasamanick, 1951). The majority of these children are classed in the low socio-economic stratum of society (Barker, 1968; Carter, 1970; Crooks, 1966; Gould, 1967).

Job opportunities for the parents of these children are greatly limited (McClendon, 1965) and the jobs available are usually for manual labor (Justin, 1970) or semi-skilled work (Barker, 1968). Jobs that do not provide for economic stability, coupled with responsibilities for large families, greatly impair the parents' social mobility (Heller, 1965). In addition, members of lower socio-economic groups are not motivated to work toward middle-class oriented goals (Wattenberg, 1964) since within the urban status system they are socially excluded, economically depressed, and politically powerless (Broom and Shevsky, 1952).

Cuellar (1970) claims that Mexican-Americans hold the poorer jobs inside most broad occupational classifications, and even if the representations were equal, Mexican-Americans would still get lower pay for similar work than their Anglo peers. Moreover, jobs that depend entirely upon the Mexican-American community command relatively lower



wages while wage standardization is associated with relatively high earnings for Mexican-American workers.

Socio-economic aspects appear to be of crucial importance in determining students' educational achievements.

In an extensive study on the impact of family background and intelligence on over two thousand tenth-grade boys, Bachman (1970) stated that from the inferences drawn from his study, the socio-economic level (SEL) was the most fundamentally important of the family background Measures investigated. In this study a nationally representative panel of adolescent boys was surveyed periodically with no attempt made to obtain responses from any one ethnic group or socio-economic level. Bachman found that SEL was related to the young men's self-concept about their school ability and high SEL was associated with above average self-esteem ambitions, job attitudes, feelings of internal control, and political knowledge. Boys from high SEL homes tended to be lower than average in rebellious school behavior, negative school attitudes, and test anxiety. Another aspect related small family size with higher academic achievement, self-concepts of scholastic ability, occupational aspirations and likelihood of college entrance.

The socio-economic picture is summarized by Young (1967) in describing a home in poverty. Poverty causes stress in the family structure, particularly if it is coupled with external forces such as restrictions in employment, educational opportunities, housing and health facilities. The statistics quoted above indicate the Mexican-American families in particular receive much of this stress due to the limitations mentioned. If this stress is compounded by the mother's seeking employment, family

disorganization usually ensues, especially if the father is no longer viewed as the bread-winner. The disorganized family can no longer plan for the future, and lives only a day-to-day existence. In such an environment of uncertainty, severe limitations are placed on the development of predispositions, habits, knowledges and experiences that promote academic achievement. In addition, family disorganization is followed by social exclusion and further economic depression. Since a large proportion of the Mexican-American families live in poverty and under the burden of discriminatory practices, the family structure is under stress and many of the symptoms and consequences of family disorganization are manifested by the students.

Factors of stress and disorganization on the family organization notwithstanding, studies of Mexican-American communities indicate that the family (Cuellar, 1970) is the most important facet of life for Mexican-Americans. It is through these close associations with family members and various groups of friends and age peers that Mexican-Americans derive support and satisfaction in work, pleasure and affect. These pools of relatives and friends serve to form the framework for knitting the community together.

In contrast, a study by Cordova (1969) identified certain relationships between acculturation, achievement, and alienation among Spanish-American sixth-grade students. He found that educational alienation of the Spanish-American student was significantly related to level of acculturation, achievement, and socio-economic status. The socio-economic status, however, was not significantly associated with level of acculturation or achievement.

The implication from these two studies appears to be that even though SEL is related to achievement of the large population at large, it is not as significant a predictor, for achievement for Mexican-American students in particular.

Cuellar (1970) reports that many times Mexican-American children are segregated in school by a special curriculum. Thus, Mexican-American children are overrepresented in "lower tracks" in Southwestern schools. Tracking is so inflexible and effective that by junior high school, most children are well established in the "lower tracks." By high school "tracking" limits preparation to non-professional, non-academic studies and makes it very nearly impossible for students to change tracks and consequently very difficult for a student to change his program. One extreme form of tracking is that of placing children in "special education" classes as mental retardates on the basis of the inappropriate use of test scores. The effect is that few children are academically prepared to enter college and pursue professional or academic careers.

All of the factors mentioned above serve to keep the family in a depressed socio-economic status and reduce the probabilities that other generations can overcome these burdens to become self-sustaining members of society.

The data indicates that the educational system is not responsive to children of a low socio-economic status in designing educational experiences that will give them the opportunity to become prepared to compete in the major affluent, technical society.

## PHYSICAL ASPECTS

One factor that is considered crucial in terms of learning is that of physical well-being. Maslow (1954) considers attention to physical needs to be in the first order of priority in relation to people's over-all ability to function in life, and particularly in relation to learning.

There are a considerable number of studies reporting the physical conditions of children in poverty, and since many children of Mexican-American parentage fall in this category, as documented above, inferences can be made as to the consequences of poor health and ineffective health facilities on school children. Deutsch (1967), for instance, in considering the effects of poverty on children, states that impoverished youngsters have more physical disorders than middle-class children. These disorders may result from serious illnesses due to common colds, malnutrition or brain damage. In addition, Arnold and Wist (1970) state that children of low socio-economic and minority groups have more difficulties with auditory discrimination than children who belong to only one group. Deutsch (1967) adds that poor auditory discrimination is associated with children who are poor readers. Pasamanick (1951) considers the nutritional level of children as one of the uncontrolled variables in considering the intelligence and hence the achievement potential of American children of Mexican parentage. Wattenberg (1964) states that impoverished children may lack physical stamina due to nutritional and health reasons and this in turn may be responsible for associated school problems.

It is a matter of record that Mexican-American children suffer from poor health care. Mexican-Americans make about 2.3 visits a year to a physician compared with 5.6 for other whites and 3.7 for blacks. Many suffer from malnutrition and the life expectancy for Mexican-American migrant workers in 1967 was 49 years. Infant and maternal mortality of migrant workers are each 12% higher than the national rate and influenza and pneumonia death rates are 200% higher. Death rates for tuberculosis and infectious diseases are 260% higher and accidents 10% higher.

It would be foolish for educators to attempt to increase the level of achievement of Mexican-American children without first considering their physical health. In this respect, however, the schools need to cooperate with civic and government groups so that conditions that keep this minority group in a situation of poverty are changed and inequities of opportunity are removed.

## PSYCHOLOGICAL ASPECTS

Another important area in assessing students' needs focuses on the psychological aspects of learning. Although various descriptions can be given as though they were separate entities, it is immediately obvious that many of the variables used in describing students are not independent but rather interrelated and dependent. For instance, a given phenomenon could well be classified with either the psychological or cultural aspects, depending on a particular point of view. With this in mind, then, certain variables are considered under the subheading of psychological aspects even though they could also have been discussed under some other heading.

### Self-concept

Self-concept is one aspect of students' needs that is very often associated with learning problems of Mexican-American children and frequently cited as a result of discrimination and the refusal of the dominant group to recognize the students' unique place in society. A search of the literature reveals that the question, "Does the Mexican-American student have a lower self-concept than other student?" remains largely unanswered. Several studies, report that there is no evidence to substantiate the claim that the Mexican-American student has a negative self-concept (Carter, 1968; Lambert, 1967). Coleman (1966), however, found the self-concepts of Mexican-American children significantly lower than those of other white children, and Palomares (1966) reported that the Mexican-American students in his study tended

to view themselves unfavorably, both emotionally and socially. Carter (1968) and DeBlassie and Healy (1970) on the other hand, found no significant differences. Anderson and Johnson (1971) also reported no significant difference between Mexican-American students and their classmates on the variable of self-concept of ability.

Significantly, though, Anderson and Johnson added that the student's success in mathematics and English appeared to be contingent upon a feeling of confidence in his ability to compete with his peers and that it is possible that this confidence may be highly influenced by success or failure in the lower grades. Others, however, claim that the Mexican-American student acts out feelings of being personally responsible for his failure in the school and community by failing (Alman, 1967; Firma, 1970) and that since others e.g. teachers, continually devalue him, he tends to devalue himself.

Soares and Soares (1969) however, claim that disadvantaged children have more positive self-perceptions than advantaged children. Others claim that the economically deprived child had greater ability to assume individual responsibilities at an early age, shows greater independence, a superior ability to deal in practical matters and appears to be more open minded in relation to his more affluent peers (Deutsch, 1967; Hernandez, 1967; Lambert, 1967).

There is no doubt that some of the ambiguity of the variable "self-concept" in minority children may be due to the design of the studies and the variety of instruments used in assess self-concept. Nevertheless, the inferences tend to indicate that although economically

deprived and minority children may not necessarily manifest lower self-concepts, it is possible that insofar as academic attainment is concerned, disadvantaged children may perceive themselves as inadequate, for a number of reasons, alluded to previously, that may cause them to demonstrate depressed academic achievement. This hypothesis, however, needs more investigation. On the other hand, if it is true that disadvantaged children do view themselves in a more positive manner in practical aspects and show greater independence, then these are qualities that the school should identify and use to enhance their self-concepts in other areas.

#### Expectations, Aspirations, and Motivation

Students' expectations, aspirations, and motivations appear to be a third aspect relevant to achievement in school. In a report by Wages (Wages, Sherry and Others, 1969), Mexican-American, south Texas school dropouts reported that poor grades and financial difficulties were among the major reasons for their decisions to drop out of school and that although most desired high school diplomas only one-half of the boys and three-fourths girls expected to finish high school. Most of the respondents were uncertain about their expectations.

In another study of Mexican-American students, Kimball (1968) reported that according to the data compiled from school records and questionnaires, parents indeed influence school achievement as measured by the variable "educational aspirations for the child" and that this variable was significantly related to all achievement variables. Furthermore, it had a stronger relationship with achievement than the



variables of personal identity, background, family structure, social status, or ethnic status. Other variables that were statistically significant in relation to achievement were the percent of Anglo students at school, socio-economic status, father's education, family intactness, family birth in Mexico, grandparent's residence and birthplace. One significant and unexpected finding was the relative high achievement of the Mexican-American student born in Mexico, compared with that of other Mexican-American students.

In a study by Juarez and Kuvlesky (1969), orientations toward educational attainment were investigated. The tenth-grade Mexican-American and Anglo boys in economically depressed areas in Texas were found to have similarly high educational goals, but detailed analysis of the data revealed that although Anglo boys tended to express high educational goals more frequently than their Mexican-American counterparts, more Anglo boys expressed a desire to drop out of school whereas more Mexican-American boys expressed desires to go to college and graduate school. In addition, intensity of aspiration was slightly higher for the Mexican-American group than for the Anglo group. The Anglo group, however, had higher educational expectations (*i.e.*, as opposed to aspirations) than the Mexican-American group.

Anderson and Johnson (1971) report that the results in their study indicate that the Mexican-American children revealed a significantly strong desire to succeed, and reported experiencing the same high degree of encouragement and aid at home as their Anglo peers.

On the other hand, Demos (1962) reports that in his study to

identify differences in attitudes toward education between Mexican-American and Anglo groups, he found that the Anglo group had the more desirable attitude toward education. It appears that Mexican-American students do not view the schools as they are presently constituted in a favorable light.

In a study by Trujillo (1971) an effort was made to assess empirically the aspirations and beliefs of rural youth and adults as a result of their participation in an adult educational program related to rural community rehabilitation. The findings of this study indicate that educational and occupational programs can influence adults' aspirations positively. Further, the results indicated that if these attitudinal changes are coupled with positive changes in the students' home environments, students' aspirations rise and bring about positive changes in attitudes toward work, change, and school.

Johnson (1970) in attempting to identify differences, if existent, between Mexican-American and Anglo-American students in motivational characteristics found that for the students in his study, overall difference, in motivational level between the two groups were not significant. He controlled I. Q. scores, achievement and socio-economic level statistically.

It appears that student and parent aspirations, expectations and motivation are significant factors in academic achievement. The results of the studies cited above, however, suggest that factors other than differences in expectations, aspirations and motivation may account for the depressed academic achievement of Mexican-American children.

### Anxiety

Anxiety is another psychological aspect that has been investigated in relation to racial-socioeconomic variables. Hawkes and Koff (1969), investigating the relationship between anxiety and sex, and anxiety and racial-socioeconomic situations, found that girls manifest significantly more anxiety than boys and that black pupils from predominantly lower socioeconomic backgrounds demonstrated significantly more anxiety than white students from higher socioeconomic backgrounds. In a follow-up study, Hawkes and Furst (1970) replicated most of the findings of the previous study, and in addition found significant negative relationships between anxiety, I. Q. scores, and teacher behavior ratings. In the second study the black children appeared to be more concerned with their school achievement, evidenced greater degrees of real fear and exhibited more specific symptoms of anxiety than did their white peers from higher socioeconomic levels.

While studies dealing with anxiety in relation to Mexican-American in particular were not found, data from the studies cited above suggest that this area needs to be investigated in relation to the Mexican-American student.

### Alienation

Alienation is another variable that has been investigated in relation to learning by minority group students. Alienation may be defined as a feeling of estrangement from a social system with accompanying feelings of powerlessness and isolation. For example, Kirby (1969) claims that it is possible that migrant children may have a

heightened sense of not belonging to a country, town or school. Further, Justin (1970) claims that Mexican-Americans are lacking in feelings of personal control when compared to their Anglo peers.

In a study by Cordova (1969) the relationships between alienation, achievement and acculturation were investigated. The student sample consisted of Mexican-American students in New Mexico. The data indicated that low acculturation in the areas of education and politics was significantly related to a general feeling of alienation; low acculturation in the areas of education and the family increased feelings of self-estrangement; and low acculturation in the areas of family, politics and religion also increased the feeling of self-estrangement. Further indications were that as the students became acculturated in the area of family, there was an increase in a feeling of powerlessness. An increase in acculturation in the areas of education, politics, recreation, and health decreased the feeling of isolation.

This same study investigated the relationship between achievement and alienation. A significant correlation was found between composite achievement and self-estrangement in the rural group, i.e., as achievement increased the feeling that school activities were not intrinsically meaningful increased. For the urban class group a significant relationship indicated that as general acculturation increased, achievement decreased and that as acculturation increased in the areas of politics, education, health, recreation and religion, achievement decreased.

The data suggest that low acculturation in areas of social living is associated with feelings of estrangement, powerlessness and isolation. Achievement is also related to these feelings of alienation. The significance of this study is the finding that as general acculturation increased, achievement decreased. The suggestion here is that the solution so often recommended that if minority children are "acculturated", then their achievement will increase, is found inadequate. Acculturation by itself, is not the answer. Other factors must be considered.

Ramirez (1970) claims that great turmoil and tension is caused when a child is asked to make a choice between succeeding and denying himself and his family. He states that in the "melting pot" idea a child is asked to lose his ethnic identity in order to succeed in school. The resultant solution unfortunately for the student and society is absenteeism and eventual withdrawal from school.

### Measured Intelligence

Measured intelligence, or I. Q. is one aspect that has been an issue in the education of Mexican-American children for many years and has been the basis for many decisions regarding their education. Taking a historical view of the issue one sees that the need, purposes and uses of measures of intelligence have changed as investigators and practitioners have wrestled with the problem. Traditionally, the use of I. Q. tests in the educational setting has been one of prediction. Students who score "high" on these instruments are expected to perform at a higher level of achievement than those whose score is "low". The

issue in the education of Mexican-American children developed when it was noted that children of Mexican-American parentage not only demonstrated a depressed level of academic achievement, but also scored, as a group, between ten to twenty points lower than other white children on measures of I. Q. It was assumed, by some, that low intelligence accounted for the lack of achievement. Garrettsen in 1928 claimed that inferior mental ability was the chief cause of poor performance by Mexican children in the United States. In 1934, Garth and Johnson stated that according to their data based on 440 children in grades four through nine the "level of educational retardation" of the Mexican-American children was 68.8 percent of the total group examined. In the fourth and fifth grades, respectively, 47 and 80 percent of the group were "educationally retarded".

For many years the difficulties of interpreting the scores from I. Q. tests administered to Mexican-American children have been known. In 1932 Davenport stated that low social status, impaired educational opportunities, lack of communication skills and cultural differences needed to be considered in interpreting results of standardized intelligence tests.

While considering these objections to the use of standardized tests for Mexican-American children, other investigators attempted to explore the problem differently. In a study in 1932 by Manuel and Hughes, a measure of intelligence was inferred from a measure of drawing ability in early school grades. In general, the average ability of the Mexican-American children compared favorably with that of other children grade for grade, but in third and fourth grades,

the Mexican children had higher means. The implications from this study were that Mexican children should be able to compete successfully with other children in school.

In 1936, Garth, Elson and Morton working with non-language intelligence tests for Mexican-American children reported that in their study the I. Q. scores obtained ranged from 94 in the fourth grade to 113.3 in the seventh grade with a mean of 100.8 using non-language tests as compared to ranges from 74 to 87 with a mean of 79.5 on a verbal test. These investigators felt that the results were "rather startling." They claimed that a Mexican-American child was handicapped when tested with a verbal intelligence test.

By 1939, the focus changed again--from considering non-language tests to considering tests in Spanish to measure intelligence. Mahakian (1939) found that the average primary pupil in his study scored 7.6 points higher in the Spanish intelligence test than in the English test. His recommendations included suggestions that (1) intelligence tests administered in English to Spanish-speaking children not be used as a valid means of measuring I. Q. (2) that no rigid classifications based on I. Q. scores be made, (3) that oral language in the classroom should be emphasized, (4) that native traits and culture should be encouraged and included in the vocabulary as a means of enrichment, and (5) that instruction in formal reading be postponed until progress was made in the comprehension of English.

By the early 1950's, the children of parents of this ethnic

group were being referred to as American children of Mexican parentage rather than Mexican children and their intelligence was still being measured, with the same differences reported. These differences were shown to become increasingly more pronounced from the first grade throughout the school careers as reported by Carlson and Henderson (1950). In reporting these results, Carlson and Henderson stated that these differences could possibly be attributed to hereditary factors, but since there were many uncontrolled factors in many studies, this could not be ascertained. For example, Pasamanich (1951) stated that nutritional status of the child played an important role in determining intellectual status and that this factor was not controlled in studies. Other possible sources of error Pasamanick claimed, lay in the conscious or unconscious prejudice of examiners.

The next line of reasoning to try to explain the difference in I. Q. scores of Mexican-American students included the concepts of "language barrier" and lack of "acculturation". Holland (1960) explored the possibilities that the low-socioeconomic status of the "Spanish-speaking" together with its attendant lack of educational opportunities and generally unfavorable economic conditions led to limited development of proficiency in verbal skills.

Other writers on the subject continue to defend or at least qualify the use of the results of I. Q. tests that to other investigators appear invalid. Stanford (1963) states that by modifying the approach to the interpretation of the scores, the level at which the



children can perform can be predicted with reliability. The justification for this point of view is that apparently the same variables which are associated with I. Q. scores also operate in the learning situations in average English-speaking classrooms, and that these factors appear to be factors in student achievement.

Palomares and Johnson (1966) in evaluating selection practices for placing Mexican-American pupils in Educable Mentally Retarded classes found that discrepancy achievements scores were not found to be related to the I. Q. scores of the students studied. The results of this study indicated, for the groups tested, that I. Q. was not the most relevant determiner of grade-level achievement. Age, however, was found to be related to the discrepancy score with the older students having higher discrepancy scores. This correlation was highest for reading and spelling and lowest for arithmetic. The authors suggested that the low correlation may be due to the relatively culture-free nature of this skill and the relatively little reading involved in arithmetic.

In recent years not only the validity of test scores has been questioned, but also their use. According to a 1969 publication of the California State Department of Education bulletin, the results of an investigation indicated that many Mexican-American pupils may have been placed in Educable Mentally Retarded (EMR) classes solely on the basis of scores received on invalid I. Q. tests. When these same pupils were tested in Spanish the scores were above the cut-off level for the

mentally retarded category.

Again, in 1970, the claim was made by Leary (1970) that scores obtained on tests taken by children whose second language is English are not valid and yet are used to identify mentally retarded school children of various races, as in California.

The studies cited above, in summary, suggest that although for many years, Mexican-American children have demonstrated a significant lack of achievement in academic areas, it is highly questionable to assume that it is caused by inferior mental abilities. Factors that are highly correlated with test scores, such as socioeconomic status, adequate physical need satisfaction, and cultural orientations, are but a few of the variables that need to be considered in assessing the causes of depressed academic achievement.

### Other Factors

Other factors such as submissiveness and fatalism have been investigated to discover any possible relationships which may exist regarding achievement and learning. Many times teachers view the Mexican-American student as quiet, submissive and polite. Hernandez (1967) reports that students in a mixed classroom tended to divide themselves in the following manner: 1) more of the bold children tend to be Anglo rather than Mexican, 2) the children who merely nod approval are probably equally Mexican and Anglo, and 3) more of those who are submissive and quiet tend to be Mexican rather than Anglo.

Carter (1968) agrees with Hernandez that Mexican students

tend to develop defensive techniques that allow them to function adequately in most classroom situations. Gill and Spilka (1962) claim that the achieving Mexican-American student has learned to conform to rules, regulations and teachers' supervision while exhibiting less hostility in coping with problems. Thus, these data viewed along with the data on the high drop-out rate among the Mexican-American students suggest that a Mexican-American student who does not learn to conform is more likely to drop out than the submissive one.

Another factor that has been investigated is that of fatalism in the belief system of the Mexican-Americans. Hernandez (1967) claims that a belief that fate plays a crucial part in his life relates to the Mexican-Americans' attitude that planning for the future is not essential. Mayeske (1968) reports that in his study Mexican-American students who reported that they can control their environment scored higher in achievement than those who believe "luck" is the success factor. However, the question not yet answered is whether a Mexican-American believes that fate plays an important role because he is of that culture or because fatalism is a result of living poverty-stricken lives and attempting to live in a world that is for the most part hostile.

## CULTURAL ASPECTS

In this review the cultural aspects of learning problems will be considered from two perspectives--first, the overall, general concepts of customs, value orientations, etc. and second, the linguistic aspects. It was felt that the linguistic aspects of a culture are of sufficient importance to warrant separate consideration.

### Value Orientation:

In considering these aspects it appears that lack of understanding, conflicts caused by inability to communicate, mistrust of customs other than one's own, and lack of appreciation for differences in others' value orientations are among some of the barriers standing between Mexican-American students and their teachers (Hernandez, 1967; Levine, 1969; Manuel, 1969; Ulibarri, 1968; Webb, 1969).

In a study designed to synthesize data on American and Mexican-American values with the purpose of understanding the differences which affect their education, Cabrera (1964) listed the major American middle-class value orientations as 1) the universe as mechanistically conceived, 2) man is it's master, 3) man is equal with other men, and 4) man can be perfected. From these orientations were derived 1) the value of optimism through effort, 2) the value of material well-being, and 3) the value of conformity. In contrast, however, the value orientations of the Mexican-American have roots in a village folk culture. The culture characteristics listed were 1) the family is of central importance, and great importance is given

to production of goods for family use under the direction of the father who is the authority figure; 2) present time orientation, with limited stress on material gain, a combination of simple patterns of work organization and group cooperation, little stress on education, and on inferior status assigned to women; and 3) emphasis on accommodation to problems rather than their solution, attitudes of fatalism, and emphasis given to "being" rather than "doing".

In a study by Vigil (1968) a comparison of certain perceptions of Spanish-speaking and Anglo children was made. The results indicated that with the exception of counselors and mothers the perception of figures such as teacher, principal, father, policeman and "myself" were not significantly different for the two groups. On the other hand the Spanish-speaking children viewed counselors and mother as significantly more positive, powerful and active than their Anglo peers. In addition, both groups viewed lying and cheating as negative, weak and inactive; however, the non-Spanish speaking perceived them as significantly more negative, weak and inactive.

These cultural differences form certain foci from which teachers tend to judge their students. It is reported that teachers of Mexican-American students tend to view them as having the following "traits": 1) that the Mexican-American tends to have a "life now" attitude rather than putting off of gratification for future goals as in the protestant ethic (Ainsworth, 1969); 2) that he demonstrates strong, traditional pride in his culture (Barker, 1968) and resists

pressures applied to change him; 3) his family life centers around his mother and he maintains closer personal relations with his relatives than his Anglo peers (Davenport, 1932; Gill and Spilka, 1962; Hernandez, 1967), that girls feel that it is necessary to help rear the family in the mother's absence even if conflicts with school arise (Hernandez, 1967); and finally, that many of the elements of his culture do not prepare him to meet his needs in an alien, dominant, middle-class society (Black, 1965).

Different value orientations are not only a source of conflict between groups but as Erickson (1968) claims, are also the source for the formation of stereotypes. These usually come about by ascribing certain characteristics to an "inferior" group. The dominant group views these characteristics as negative and uses them to define its own identity by stating that these are characteristics they themselves "do not have". Thus, the foregoing list of sources of conflict between the Mexican-American students and their teachers contain items that are generally associated with the lower socio-economic groups (Casavantes, 1969). In large measure these associations contribute to stereotyping groups in terms of dimension that are "judged" as undesirable. Casavantes (1969) in considering the problem of stereotyping suggests that no single attribute characterizes any large portion of Mexican-Americans, but that the many potential differences can be described in three dimensions: belief systems, regional differences, and socio-economic status.

Romano (1969) states that although traditionally the Mexican-American has resisted acculturation to a large extent, Anglo values and attitudes have been internalized, generally in the second and third generations. Crows (1966) analyzes the situation of the recent immigrant as one who finds his cultural background devalued, tends to relinquish the old ways in favor of a new life in the urban areas, but find that cultural modification in the second and third generation is inhibited due to the difficulties encountered by his children in trying to communicate with the institutions designed to help him acculturate.

#### Value Orientations and Academic Achievement

A study by Schwartz (1969) attempted to find relationships between value orientation, and academic achievement of Mexican-American and Anglo public school students in a large school district in California. The results indicated that 1) there were substantial differences between Mexican-American and Anglo pupils from similar socio-economic backgrounds in some special valued orientations; and academic achievement of Mexican-American students increased as socio-economic status rose; 3) that there was more similarity of value orientations between Anglo and Mexican-American pupils in integrated schools than between the Mexican-American pupils and those of other schools; and 4) that differences between Anglo boys and girls were less than between Mexican-American boys and further, that the Mexican-American boys' orientations were more similar to the Anglo orientations than those of the Mexican-American girls.

In a study by Sarthory (1968) the relationships of ability grouping and self-concepts, inter-cultural attitudes, and occupational and educational aspirations were sought. The results indicated that self-concept, inter-cultural attitudes, and aspirations appear to be based on the students' membership in social groups such as the family and socio-economic class rather than the group determined by ability. Further, the grouped, high I. Q. students had significantly higher aspiration levels than the ungrouped, high I. Q. students. The author concluded that inter-cultural attitudes appear to be based more on socio-economic factors than on ethnic factors.

Patterns of familial interaction appear to play a role in relation to achieving. An attempt to identify nonintellectual correlates of academic achievements among Mexican-American secondary school students was made by Gill and Spilka (1962). They reported that under-achieving boys and achieving girls in their study tended to come from homes in which the mother was more dominating than those mothers of achieving boys and underachieving girls. How this is related to the culture, if at all, is still unanswered.

Henderson (1966) reports that in an attempt to describe environmental backgrounds of Mexican-American six-year-olds, in order, to identify and possible relationships of background to promise of success in school performance, that children rated as "high potential" scored significantly higher on vocabulary tests in both Spanish and English than those rated as "low potential". The description showed



that the High Potential families travel more and present more experience to their children than the Low Potential families and while both groups were interested in their children's education, the Low Potential families were more concerned with meeting daily needs.

Anderson and Johnson (1971) in investigating stability and change among Mexican-Americans as related to achievement report that Mexican-American children on the whole receive lower grades in English but show no significant difference in mathematical competence in comparison to other students.

#### Cultural Interference

In considering and "identity crisis" in the barrios, Ramirez (1970a) studied 200 Mexican-American students to attempt to differentiate cultural values and behaviors between those who identified solely with the Mexican or Anglo culture and those who identified with both. According to the results of the study the student who largely accepted one culture only, appeared not to be "well-adjusted". If he identified largely with the Anglo culture he felt his parents did not understand him, but was able to find peace outside his home where he appeared friendly, trusting and outgoing. On the other hand, if he identified largely with the Mexican culture, he had good rapport within the family; however, outside the home he felt there were few people he could trust and was self-conscious and hesitant to participate in class. In contrast, if the student was rated as bicultural he appeared to be "adjusted" and expressed gratitude for being able to have the broader

experience of living in two cultures.

A loss of identity is the result of a person's attempts to function within two cultures whose values, ideals, etc. are different (Rodriguez, 1970a). Webb (1966), for instance claims that if a child feels a loss of identity because of attitudes of school people, he will become indifferent or alienated towards learning, the school, and its values. Rodriguez (1970) also claims that the so-called "language barrier" and "culture conflict" are false apologies for the failure of the schools to deal effectively with cultural deviation. Cuellar (1970) claims that one major technique for dealing with the language and culture of the "ethnic deviant" is to simply suppress them. Deloria (1970) claims that such attitudes of rigidity and lack of sensitivity and responsiveness to different value orientations are among the main causes for the deplorable state in which many of the American Indian tribes find themselves today. He maintains that an ethnic group must identify its own problems within its own social norms and develop its leadership potential and natural leaders through its society's established processes. When this is done the group itself will solve its own problems. For this to come about, however, the individuals must identify strongly with the group. External solutions will avail nothing.

Erickson (1968) in considering ego identity and culture states that a person gains an identity in unity with a group or a culture. If a person is to gain a strong sense of identity he must have access to an ideological structure that simplifies the world for

him so that he can become a part of it and develop his capacities. This ideological structure is provided by his culture. The ideals and values provided by the older generation are necessary to facilitate identity formation for the next. Erickson states that familial disintegration takes place when the traditional family patterns are distorted. He adds, however, that the most inclusive and absorbing identity potential in the world today is that of technical skill, i.e., the capacity for a man to be a participant in an activity or experience that verifies his place in the world--what he is and what he does. Thus, from Erickson's point of view, a person's participation in his culture is essential for the acquisition of a strong, positive identity.

## Language Factors

### LINGUISTIC PROBLEMS

A search of the literature related to language variables reveals that a learner usually encounters a number of problems in learning a second language which may affect the rest of his school achievement indirectly. Many of the problems listed below are natural consequences of a person's attempt to learn another language in terms of the one he already possesses. The magnitude of these relatively simple problems, however, is increased in relation to Mexican-American students because in many instances teachers are not aware that such problems exist and the points of difficulty are never attended to properly. For example, a danger inherent in learning a new language is that of anomie. The learning of a second language requires that another culture be learned also (Gardner, 1968; Meyerson, 1969) and the result may be that in the learning process the person becomes alienated from his own culture (Praton, 1970) especially if the person facilitating the learning is not aware of this possibility.

#### Language Interference

One common problem in learning a second language is that of interference. Language interference occurs when a person attempts to function in one language and elements of another language are used as substitutes. Interference occurs in the semantics, phonology or syntax of the language.

Cuellar (1970) states that the historical suppression of

of Spanish has tended to degrade the quality of Spanish in that English words have been adapted to Spanish syntax resulting in "pochismos" or malogisms such as "el troque", the truck, and "la ganga", the gang. The result is that a "barrio" language has developed to the dismay of many Mexican-American intellectuals. Other writers, such as Troike (1968), however, feel that the choice of dialect is not a matter of what is right or wrong, but rather what is socially acceptable.

Another source of difficulty for a person learning a second language is that the person's perception of the new language is made in terms of the language he already knows. One aspect of this problem is that sounds in one language are not necessarily found in another and the learner experiences difficulty in producing new and unfamiliar sounds from his limited linguistic background (Beberfall, 1958). In order to overcome these difficulties, much practice is needed (Gardner, 1968; Hildreth, 1964; Rowley, 1964). It is known, however, that many Mexican-American children do not have their English learning reinforced at home and in many instances do not have sufficient opportunity to practice it (Hildreth, 1964; Holland, 1960; Lambert, 1967).

Some writers feel that another consequence of interference and suppression of the learner's native tongue is that Mexican-American students are not prepared in either language. Knowlton (1967) claims that Mexican-American's seldom master the basic grammatical elements of either English or Spanish and in effect are functionally illiterate in the two languages.

There is a differing point of view, however. Children learn the grammar of their native language at home and although they may have a limited vocabulary, they nevertheless know the structure. Stockwell and Bowen (1970) say that it is doubtful that a four year university program can duplicate a six year old child's familiarity with the grammar of his native language. The student's language experience is not considered and as Christian (1967) suggests, the educational system as presently constituted hinders the students' academic progress if Spanish is spoken in the home.

#### Use of the Native Language

At this point Luria's (1966) position on the function of verbal behavior in the development of intelligent behavior is pertinent. He holds that speech has semantic and syntactic functions, but in addition has a directive function. The child must be given an opportunity to develop the verbal behavior that will serve him to acquire intelligent behavior necessary for engaging in learning activities successfully. The child may develop this verbal behavior in either Spanish, English or both.

Several studies attempting to identify relationships between the use of a bilingual's native language and learning variables have been made. In a study by Ervin (1961), the results indicated that a bilingual could name pictures easier in his more fluent language and could recall them significantly more often in that language regardless of the language used for learning. The best results occurred when

learning and recall were in the dominant language. The results further indicated that the worst conditions for recall occur when learning is in the dominant language and recall is made in the less fluent language.

Another factor in considering the use of a person's native tongue for instructional purposes is suggested indirectly by Frost and Rowland (1968) who hold that a severely word-restricted child has little chance for learning to read before verbal sentence fluency is mastered to a degree. Frost and Rowland hold, however, that a child if verbally promiscuous, may attempt to read successfully while speech patterns are becoming established, i.e., if he can speak, although not entirely correctly. In discussing "seven deadly sins in language education" Andersson (1965) states that one is the traditional misconception of language in terms of grammar, reading, writing and the "belles lettres". Language learning, however, must be approached from an understanding of the nature of language and the process of its acquisition--thus, the acquisition of verbal facility must precede writing, especially for the young.

Hildreth (1964) reports that one factor in early reading instruction is the student's ability to speak the language. She claims that students learn to read a language much better after having learned to speak it. Zintz (1970) claims that the bilingual should have an opportunity to master the sound system of English before he is expected to learn to read and write it.

Another factor to be considered in using a bilingual's native tongue is that of transfer. If a process is learned in one language, what transfer is there, if any, to a second language? Kaufman (1964) for example, reports that the results of his study with Spanish-speaking students indicate that there is positive transfer of learning from instruction in reading skills in Spanish to Spanish-speaking students to reading ability in English.

#### ATTITUDES

As in all learning, the learning of a second language is facilitated if the learner has a favorable disposition toward the learning task. As mentioned previously, learning a second language implies learning a second culture (Meyerson, 1969; Gardner, 1968); thus, if a person becomes bilingual, he should also become bicultural. The person learning a second language must view bilingualism as an asset and as Bernal (1969) suggests, schools should also recognize this. Teachers need to view bilingualism as an asset and respect the students' values and recognize the contributions that Mexican-Americans can and are making to the American scene.

Parental attitudes (Gardner, 1969, Peal and Lambert, 1962) influence students attitudes towards the learning of English. The parents' attitudes towards the community whose language is different will pass on either positive or negative attitudes to the children who will in turn internalize them. The student will be motivated or discouraged in his efforts to learn the new language. Students, through



the parents, need to accept the values, habits and features of the other cultural group in order to achieve success.

The students need to view the new language as significant and relevant in their lives (Gardner, 1969). However, as Cordova (1969) claims, as a student achieves to a greater degree, he appears to become more alienated from school. This, then, suggests that the student does not feel that the education he is receiving is either significant or relevant in the face of other obstacles such as discrimination and lack of opportunities for pursuing further goals.

#### LANGUAGE DEVELOPMENT AND ENVIRONMENT

The general consensus of researchers and educators appears to be that environment is a crucial factor in language development. A child's native capacities for learning a language will be utilized and extended to the fullest depending on the quantity and quality of the experiences that are provided for him by his environment. Reissman (1961) claims that if a child grows up in an impoverished environment, i.e., lacking the stimuli appropriate and necessary for developing his capacities for efficient cognitive functioning, he will work on academic problems at a slower pace than other children; he will be slower at generalizing, problem solving, engaging in a task, and taking examinations.

Several studies have investigated auditory discrimination in minority and low socio-economic status children. Arnold and Wist (1970) found that the six-, seven- and eight-year-old children in their study

who had poor auditory discrimination had reading difficulties. Moreover, the results indicated that children from low socio-economic and minority groups have more auditory discrimination problems than children who belong to only one of these groups. Grotberg (1965) claims that low socio-economic status children have difficulty in visual as well as auditory discrimination because of poorly developed habits of hearing, seeing and thinking.

Meyerson (1969) states that for a student to learn a foreign language he must learn to distinguish sounds clearly. Thus, as a student with auditory discrimination difficulties tries to learn a second language, he will encounter more than the usual number of problems.

### The Culture of Poverty

The culture of poverty is another factor that assumes a crucial place in language development. Language learning is influenced by the child's life-style. Lower-class or disadvantaged children show vocabulary and syntactical patterns that have not developed as a result of communication with adults in his family. Consequently, children of low-income groups possess a less than adequate linguistic facility to function in school (Ruddell, 1966; Grotberg, 1965).

In addition, children who do not receive adequate cognitive stimulation demonstrate a lack of conceptual development (Robinson and Mukerji, 1965). For example, their ability to make discriminations and categorizations appear to be impaired and the use and meanings of

symbols restricted. This greatly limits their ability to gather and process information (Frierson, 1965).

Frost and Rowland (1968) said that the language of the disadvantaged is usually restricted. This restriction does not permit the breadth and depth of expression necessary for precision about ideas or emotions. In the disadvantaged, language development is delayed during infancy and childhood through a lack of formal language interaction with adult models. Simpler, non-verbal symbolism i.e., symbolism that is very closely related to the action, is prevalent in this environment and moreover, is highly inappropriate for engaging in academic pursuits.

Ruddell (1966) claims that in this culture of poverty children have less opportunity to communicate with adults who can provide linguistic models and intellectually stimulating conversations. In addition, they have less access to books, magazines and other stimuli. Consequently, the child is deprived of opportunities to imitate "standard English" language patterns that he can use effectively in school.

There appears to be evidence that there is a critical period during which the effects of deprivation leave their greatest mark on children. Levine (1962) suggests there is a period between the ages of 2 and 4 when the child can develop his capacities for performing certain cognitive functions such as interpreting, symbolizing and using a language. This period, unfortunately, does not occur at the time when the children are in school when intervention would be of

maximum benefit.

### Advantages

Some investigators seem to feel that a bilingual has certain advantages over a monolingual. Forbes (1969) claims that a Mexican-American child has a linguistic headstart over the Anglo-American child through his ability to switch back and forth from one language to another. Forbes (1969) also claims that the Mexican-American brings to school a variety of bicultural experiences that teachers should be aware of and know how to use for the benefit of the student.

Many studies have been conducted on the effects of bilingualism on intelligence. Many of these cite detrimental effects and others no significant differences. For example, Pintner and Keller (1922) and Darcy (1946) claim that monolinguals are superior on intelligence tests than bilinguals and Hill (1936) claims no significant differences. These and other studies, however, either failed to control or did not report that they controlled factors that appear to influence scores on I. Q. measures such as socio-economic status of the participants, degree of bilingualism, age, sex, and the tests used, thus making the results subject to question. In a study by Peal and Lambert (1962) a group of ten-year-old French-Canadian bilinguals were found to score significantly higher on intelligence tests than monolingual children which was a reversal of previous conclusions. These investigators did control for socio-economic class, degree of bilingualism, achievement, age and attitude to the English and French languages. These

investigators suggest that bilinguals have a linguistic advantage, can form concepts more readily and are mentally more flexible than monolinguals. Further, the researchers reported that the data suggest that the bilinguals in their study seemed to have a wider range of mental abilities than monolinguals. In relation to attitude towards the language, they found that it was possible that the bilinguals, perhaps through parental influence were favorable toward English, but at the same time were unfavorable to the French.

### Summary

Certainly it can be said that one of the Mexican-American student's major problems, if not the most crucial, is that of learning English. It can be the vehicle by which he can enter the mainstream of American life, yet in the past educators have attempted to help him learn English, but the results show that their efforts were largely in vain. The research cited above has offered clues by which curricula and methods may be changed in order that teachers' efforts be rewarded and the Mexican-American can become truly bilingual.

## RECOMMENDATIONS

The purposes of this paper were to review the literature to identify variables affecting learning of middle-school Mexican-American student and to examine what implications may be drawn from this information. The problem, as we know it, is that in the past Mexican-American students have achieved academically far below what is believed to be their capacity. In hopes of changing the situation, researchers and educators have made recommendations so as to improve the curriculum, the methods and teacher education related to educating the Mexican-American. The results of a search of the literature are presented in that order.

### Curriculum

Suggestions for curricular change fall in several broad categories. These are: use of Spanish as a language of instruction, use of materials dealing with the indo-hispanic cultural heritage of the students as part of the curriculum, inclusion of parental suggestions for curriculum development and of a competency-based curriculum.

### Spanish as Language of Instruction

Researchers and educators in general suggest that a point of view that focuses on the individual student is needed if the Mexican-American student is to be helped to achieve at a higher level. One way this can be done is by recognizing his native language by using it as a language of instruction. Educators must recognize that language differences do not imply language deficiencies.

In the early 60's, educators advocated that preschool instruction be given in Spanish as well as English (Alexander, 1961) to increase interest in school and minimize the dropout rate. Later, others suggested that instruction in Spanish be given during the students' primary schooling so as to take advantage of their linguistic background (Andersson, 1969; Bernal, 1969; Knowlton, 1967; Scarth and Rogers, 1968). As a result, several attempts have produced results in the use of materials written in Spanish. Masella (1966) for example, reports that Spanish speaking students in New York who attended classes in Spanish and received instruction in English as a second language decreased their absenteeism and improved in achievement. Others such as Andersson (1969) and Alexander (1969) for instance, refer to other successful attempts to use Spanish as a language of instruction.

Pryor, as quoted by Vera and Horner (1970), claims that children in his San Antonio project who received instruction in Spanish and English in first grade, had higher scores on measures of cognitive growth, communication skills and social and emotional adjustments than their control peers who received instruction solely in English.

The rationale for the use of Spanish as a language of instruction has changed, however. Originally the argument pointed to facilitating instruction as suggested above by Masella. The thrust has changed from merely facilitating instruction to that of a broader



concept of "biculturalism" which will not only facilitate instruction, but also help the student enhance his sense of pride and self. Manuel (1969), for instance, points out that Spanish-speaking students should have the opportunity to become literate in their mother tongue. At present, however, the idea of biculturalism has generated an even broader concept of "cultural democracy" suggested by Ramirez (1970b).

#### Pride in Cultural Heritage

Rodriguez (1969) advocates stressing the cultural richness of a student's bilingualism as a positive force to enhance his personal identity and self-esteem. Montez (1970) goes farther in proposing that Anglos as well as Mexican-Americans become bilingual and bicultural in order to live as fully as possible in the Southwest which sustains at least two major cultures.

In order for students to learn of their cultural heritage and thus become bilingual, educational activities should be planned in which accurate descriptions of hispanic achievements and influences in the Southwest are gleaned by the students. Knowlton (1967) advocates that Mexican-American students be imbued with a sense of pride and self-respect through a study of the history of their own development in the United States via the arts and their native tongue.

Rivera and Cordova (1970) suggest that materials to be used in bicultural education should include interpretations of interactions of groups that have influenced the lives of Mexican-American students, the Spaniard, Indian, Mexican and Anglo. If education is approached

from a point of view of cultural pluralism, the Mexican-American can identify with his own ethnic group while remaining a United States citizen. Ideally, the curriculum for the Mexican-American should include materials which will provide a climate and opportunity for them to optimize their achievement in both cultures.

Rivera and Cordova also suggest that since there is a great paucity of adequate materials available for use in the elementary grades, teachers should be given opportunity, *i.e.*, time and resources, to exercise their innovativeness and create their own materials. Rivera and Cordova include in their article many references to suitable commercial material that is easily available.

Robinett (1970) reports that the Spanish Curricula Development Center in Miami Beach, Florida has been established to acquire, develop and disseminate instructional materials that reflect the needs of Spanish-speaking children and are relevant to them. It plans to produce Spanish curricular kits in the language arts, social science, fine arts, science, mathematics and English as a second language.

#### Community Involvement

An innovation that has occurred in the area of curriculum development is parental involvement. It has come about as a result of the critical analyses extant today about the results of the efforts of education to meet its goals in relation to minority group children. Community participation in curriculum development must be of a deep and comprehensive nature. Many educators such as Robinett (1970),

Rivera and Cordova (1970) and Ramirez (1970b) work on projects which have community advisory councils composed of members of ethnic groups which they serve. The Federal Government has been forceful in attempting to fund projects that have active, concerned parents in advisory community councils. (See, for example, Guidelines for Teacher Corps Proposals and Trainer of Teacher Trainer Projects Proposals; Education Professions Development Act (Washington, D. C.))

De Leon (1970), for example, states that community participation on a policy making level will enhance efforts at acculturation. In addition, the California State Board of Education requires that all school districts establish advisory councils for helping allocate Title I funds to assure effective programs for the disadvantaged (Ericksen, 1968).

At present, the Mexican-American community is willing and able to assist in the development and implementation of educational programs designed to assist its children (Guerra, 1970). The larger community should seize this opportunity to broaden the base of participation which will enhance education for all children. It is through the efforts of such community representation that relevance can be brought into the education scene.

#### Competency-based Curricula

Lessinger (1969) has issued a challenge to education by stating that too many students graduate from school without tools for developing a trade and in many instances are highly deficient in reading

and writing. He claims that a system to assure quality must be developed. No substitute for competence should be accepted. Neatness, for example, should not be used to replace mastery of subject matter. In relation to the Mexican-American student, Delgado, as quoted by Vera and Horner (1970) asks that students be prepared to enter college and not be placed in classes where the requirements are minimal and don't assure a student that he will have the competency necessary to succeed in either the academic world or the world of work.

The suggestions made in the literature for changes to optimize the Mexican-American students' opportunities for scholastic achievement can be characterized by the term "relevance". Although this term has been overly used, in this instance it is appropriate, and indeed, necessary. The students' language, their culture and their heritage must be incorporated into the curriculum. Parents must be asked to participate in the development of the new materials to insure validity. Simultaneously, learning must be facilitated more effectively so that the new materials as well as traditional subject matter are mastered.

### Instruction

Recommendations for change have also been made in relation to methods of instruction. The use of techniques such as Teaching English as a Second Language are suggested by many educators. The TESOL (Teachers of English to Speakers of Other Languages) Quarterly is devoted exclusively to the end of helping teachers implement

second language programs. This journal does not focus on teaching English to Spanish speakers only, but recognizes that in the United States there are many children whose native languages are not English. The emphasis is, again, on cultural pluralism or as Ramirez (1970b) refers to it, "cultural democracy" in language learning.

Specific suggestions include 1) emphasis on offering courses in reading at the secondary school level to insure mastery of the skill (Morris, 1968); 2) ample opportunity for oral, and other means of self-expression such as the "Magic Circle" of Palomares (1970) and reading and writing poetry to increase vocabulary, and improve phrasing and intonation (Byers, 1965).

Perales and Howard (1970) suggest that fewer lectures be given and more techniques allowing for oral communication be used in teaching all the disciplines to Mexican-American students. Wardbaugh (1969) proposes that since Mexican-Americans are learning a second language, opportunities for listening to and engaging in dialogues are necessary; the student should drill in ways that will have him complete many and varied types of English sentences. Edwards (1965) suggests that teachers encourage students to tell about their experience and use this material to teach them oral expression. Sizemore and Bloom (1969) state that writing skills should also be emphasized and that since writing, like speaking, is formed through habit, much copying and dictation of familiar material is indispensable.

Zintz (1970) in suggesting methods for teaching reading to bilinguals states that many audio-visual aides need to be used.

Pictures, three-dimensional toys, and materials easily obtainable from magazines, catalogs and ten-cent, drug and department stores can be used to motivate language learning.

### Operant Conditioning

Rowley and Stone (1964) claim that verbal behavior of children can be modified by the use of operant conditioning techniques. They report that the use of socially-based rewards appears to increase the frequency of usage of certain classes of words. Firma (1970) has also investigated the use of rewards acceptable to Mexican-American students, and reports that the results of her study generally supported the hypothesis that a bicultural approach to reinforcement and reward techniques that include activities relevant to both Mexican and American cultures would improve Mexican-American children's self-esteem.

### Counseling and Guidance

Several educators believe that in conjunction with more relevant curricula and more effective teaching techniques, improved counseling and guidance services should be offered to Mexican-American students. Alman (1967) suggests that good counseling techniques can be used as a sincere expression of a desire to help the economically disadvantaged student. Gonzales (1965) suggest that counselors can be effective in helping Mexican-American students stay in school and encourage them to prepare themselves to enter college. Klitgaard (1969) reports that one counselor, by having informal "rap sessions" with a

group of Mexican-American high school students to discuss a variety of topics, was successful in helping thirty of the thirty-five members in the group graduate, enter and remain in college. Grotberg (1965) also states that special guidance programs have demonstrated positive results in helping disadvantaged children.

#### Administrative Changes

Conscientious administrators can also make a significant contribution to helping minority children realize their potential by implementing salutary changes. Roscoe (1969), for example, suggests that grades, retention and promotion be abolished so as to emphasize learning and not marks. He also suggests that smaller classes be held, that no homework be assigned and the work be done in class and that libraries be enriched.

Administrators can also actively support and help implement special programs. The importance of such support is pointed out by Rosen and Ortego (1969) who propose that pre-school programs be instituted to help prepare students for future reading tasks. Alexander (1969), in addition reports that successful results have been obtained in Texas pre-school programs.

Andersson (1965) makes several recommendations for specific changes that can be facilitated by administrators interested in improving the education of the bilingual child and of children in general. First, is that language instruction can begin in the early years of nursery schools and kindergartens and be incorporated throughout the elementary

grades in order to abolish the useless two-year secondary school foreign-language sequence that presently exists; further, that certification should be no substitute for quality, and preference be given to teachers who are native speakers; and finally, that Spanish-speaking students be encouraged to speak Spanish. Andersson concludes the article by stating that the experience gained by educators in correcting the miseducation of Spanish speakers in the Southwest may call for improved methods for applying the new principles to language education in general, and indeed trigger an important movement in American education.

As pointed out previously, educators like Levine (1962), claim that the crucial years for developing capacities that will effect a person's future ability to engage in educational tasks are the pre-school years. Administrators, then, can be key people in supporting and promoting such activities.

### Teacher Preparation

It has been said that if there is going to be a change toward developing the potential of Mexican-American students, the change must come about with the teachers themselves (Arnez, 1966). In the literature many suggestions are made for possible changes in teacher preparation that will help meet these needs. Several assumptions appear to underlie the suggestions made. The first is that culturally different children need, if not special, certainly "a different kind" of attention, i.e., they have needs that are different from those of the



larger majority that should be attended to; next, that special methods should be employed in teaching economically disadvantaged children because of a possible lack of an academically oriented early childhood stimulus experiences; third, that a teacher's attitude is all important in implementing the changes deemed necessary--that attitude is certainly necessary but not sufficient; specific skills are required additionally; and finally, that teachers can be prepared through preservice and inservice activities to develop these knowledges, understandings, skills and attitudes needed to teach culturally different children.

#### Cultural Awareness

Manuel (1968) claims that there is a great need for qualified teachers for the bilingual student. To teach Mexican-Americans effectively, a teacher must be able to transfer attention from group to individual instruction while taking care at the same time to attend to the strong group ties and group relations favored by their culture. This is, however, only one instance of cultural awareness. Manuel suggests that all teachers of Spanish-speaking children should be bilingual if at all possible. In a broader sense, they should be bicultural.

Ramirez (1968) claims that the most effective teacher preparation programs will be those which are based on knowledge of the value orientations of Mexican-American students that clash with the value system of the schools, and address themselves to familiarizing

prospective educators with these barriers to students' successful performance. Teachers need to experience, through their training program, how a person's culture is a force in giving him direction to his actions. Thus, the behavioral sciences can make a valuable contribution to teacher education.

Goldberg (1967) claims that pupil learning is a function of the instruction received and that disadvantaged children need respect and understanding. Teachers need to be able to make realistic appraisal of the emotional and academic problems whose source is a deprived environment. Thus, order must be blended with flexibility. Teachers should know the basic techniques of social work and the current findings of the behavioral sciences to develop new curricula. Teachers of the disadvantaged should also have experiences of living in the depressed areas in which they will work.

#### Attitude

Another very important factor to be considered in teacher preparation programs is that of attitude. Bernal (1969) suggests that teacher education programs include training in the education of the culturally different and the economically deprived. More comprehensive knowledges and understandings and more open and flexible attitudes are needed. Another plea for supportive, facilitating attitudes is made by Lloyd (1968) who asks that teachers not alienate children whose vocabularies and speech patterns differ from standard "middle-class" English but instead teach to a broader concept of communication as

exemplified by certain common elements in all speech and the printed page as an extension of speech.

Palomares (1970) proposes a model for teacher training called the Human Development Program (HDP). In the teacher preparation phase of the project, the teachers are helped to become open and receptive to their own feelings and thoughts and their children's. Teachers become aware of their feelings, thoughts and behaviors which relate to minority groups and their problems. This sense of awareness is followed by the development of feelings of mastery over specific skills and finally the development of a sense of personal influence over others through interaction is brought out.

### Language Teaching

Researchers and educators, alike, as documented above, propose that students be taught in both English and Spanish. Others who agree that bilingual education, like Teaching English as a Second Language, is an example of techniques that can be used to enhance the minority students' academic achievement, propose that teachers, regardless of their teaching fields, develop understandings, and appreciations of the purposes, functions and usage of language in communication, thought and learning. Natalicio and Natalicio (1969) state that although there is a wealth of material available for teaching English as a second language the teachers who are to use them are unfamiliar with the linguistic principles which underlie their development. Furthermore, they claim, only long term integrated efforts between

teachers and administrators, rather than short, summer term efforts at teacher preparation will have lasting effects.

In addition, Goodman (1969) claims that basic knowledge of linguistics can give insights to teachers in reading, spelling, composition, literature and speech. A teacher can also appreciate that although a child may not speak "standard" English, he is nevertheless an expert language user.

Hughes (1969) suggests that educators should be able to observe and objectively describe the language of the disadvantaged child. She specifically asks that teachers listen to their students in order to learn new ways of communicating with children and to develop new cultural perspectives.

Guernsey (1969) claims that through the study of linguistics teachers can learn how a culture develops patterns of prejudice through its language. In addition, he claims that teaching English as a second language is effective in teaching remedial reading.

The study of linguistics by teachers and the use of teaching English as a second language or the use of Spanish as a language of instruction will not solve all the learning problems of the Mexican-American student. As Olson states (1965b), since different people learn in different ways, various approaches to teaching language should be used. In the past, teachers felt that if students spoke English only and forgot the Spanish, willingly or otherwise, they would eventually learn English and many of their problems would be

solved. Educators now feel that learning to read and write a language presupposes an oral capability on the part of the student. Teacher preparation programs, then, must reflect a commitment on the part of educational institutions to train teachers in all the techniques now extant that will help a Mexican-American student become orally proficient in English as well as Spanish.

### Higher Education

The junior and senior high school drop-out rate of Mexican-American students is high, but the drop-out rate in higher education is equally high. Guerra (1970) claims that the institutions of higher learning are not responding to the needs of minority students and lists several items that need to be considered for reform.

The first particular under attack is that of college requirements and admissions on the grounds that they are designed by and represent the interests of the white middle class. He proposes that rather than focusing on traditional academic standards, universities should focus on new goals which reflect modern realities. In addition, scores on invalid intelligence tests are used to justify the exclusion of certain classes of people. Guerra suggests that we don't need fewer standards--but better standards.

The Mexican-American encounters two major problems upon entering college--financial capability and academic scholarship, Guerra points out. The first can be solved by finding new source of funding as well as using the ones presently available wherever possible.

The second problem can be attacked by the university if it is willing to create new ways for diagnosing students' deficiencies and providing help for their unique needs. Language needs should have the highest priority. In addition, an interdisciplinary approach to teaching Mexican-American Studies should be utilized.

Guerra concludes that if bilingualism and biculturalism are academically rewarded, the attitudes of the public schools will change. The result will be that the bilingual's language proficiency will be considered an asset.

## SUMMARY

A search of the literature pertaining to variables which may account for differences in academic achievement of Mexican-American students has revealed that indeed, several such factors may be identified. The weight of the evidence suggests that educational systems in general, have not been responsive to the needs of individuals in general, and of minority groups in particular who deviate significantly from the characteristics "of the model student for whom the curriculum is designed..." (Natalicio and Natalicio, 1969). Although educators in general appear to support the notion that in order for education to be optimally effective, individual differences must be attended to, the truth of the matter is that very little individualization of instruction takes place in schools at present.

In designing curricular materials, for example, factors influencing the selection of initial learning experiences directed at the learner's existing state of readiness are not considered. Utilization of a student's knowledge of his native language as a medium of instruction and promotion of adequate self-concepts through a knowledge of his culture is lacking.

In the area of instruction the literature demonstrates that in the past, only one point of view of teaching English was available. At present, however, many other approaches such as Teaching English as a Second Language, Bilingual Education and Teaching Spanish to Native Speakers are under investigation.

In addition, teachers need to require mastery, of on-going

learning tasks before new tasks are attempted in order to provide the necessary background for future learning tasks. That this has not been done in the past is evidenced by the fact that the few students who succeed in enrolling in college (i.e., graduate from secondary school), have an extremely high drop out rate during the first year and continue to drop out in ensuing years.

In the area of teacher education, the recommendations point to programs which will produce flexible, open and accepting teachers. These teachers should be able to accept students on the students' terms and not view, say, the language and/or culture differences as deficiencies. These are teachers who understand how society functions and what role culture plays in a person's life as he grows, develops and learns. These are teachers who use the students' background, (their language ability--in the case of Mexican-Americans--be it Spanish, "sub-standard" English or other) as far as possible as a learning tool rather than as a handicap.

It is in the philosophy of education professed by local school boards in determining educational policies of their respective districts, however, where much change may be brought about. In the past, one of the purposes of education was to transmit the value system imbedded in the culture. The new position that may emerge is that one purpose of education is not to transmit a value system from one generation to another, but to help students develop a value system of their own.



The new position may be that an individual has the right to develop his own value system and govern his life by it. This position has certain implications, however.

A person must develop a value system in order to make decisions. Often, a student has a value system that is as yet undefined, and at best tentatively so. Thus, one goal of education can be to assist the individual in identifying, examining, and reflecting on his value system and changing it if he feels another is more beneficial and useful to him. The role of the teacher then, is as facilitator and not as transmitter. Education would consist of assisting students to make value judgements. This can be done by providing the necessary bases for such judgements in the form of relevant information and frequent opportunities for acting upon those values, i.e., participate in decision-making.

In such an educational setting, the question of whether to teach, say, one culture exclusively, or one language exclusively is irrelevant. A student is given the opportunity to explore and examine many positions. The teacher is on hand to foster the emergence of the individual's values into a viable system. In such a setting, individuals of various economic, cultural and intellectual backgrounds can work together to a common end--the development of each person's set of values congruent with the norms of society.

There is another side to the problem, however. Educational institutions may develop climates for learning in which the individual

does have priority. The schools may develop settings in which cultural pluralism is one of the major goals. This will be to no avail, however, if society, in general, is not prepared and willing to give each individual an opportunity to function to the best of his capacities. Mexican-Americans need to be given opportunities for better jobs, better housing, and better health care in addition to more effective education. The school and the community must work together to improve the students' achievement. The research points out that unless all factors that contribute to a person's sense of well-being are attended to, the results of educational efforts will continue to be highly ineffective, uneconomical, and meager.

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