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ABSTRACT

A study involving 101 sixth-grade children in the San Luis Valley Public Schools in Colorado was made (1) to determine factors causing measurable differences in scholastic achievement between Anglo American and Spanish American children and (2) to suggest methods for correcting these differences. History of the region, cultural differences between the Anglo and Spanish American groups in the region, and tests suitable for use in the study are discussed. Children were tested with the "Gates Reading Survey Test" and with the "Pintner General Ability Test: Non-Language Series." In addition, a questionnaire was administered to each child to analyze cultural differences in the area. Results of the study indicated similar intelligence test scores and noticeable differences in reading test scores between the 2 groups, with the Spanish American children being about 1 year behind the Anglo American children. Very little difference was observed between the 2 groups on the environmental-cultural factors studied. A bibliography of related publications and a copy of the questionnaire used in the study are included. (DK)

Adams State College
Alamosa, Colorado
Division of Graduate Studies

THE RELATION OF AGE-GRADE READING SKILLS TO ENVIRONMENTAL-CULTURAL FACTORS IN THE LIFE-SPACE OF SCHOLASTICALLY RETARDED ETHNIC GROUPS IN SELECTED SAN LUIS VALLEY PUBLIC SCHOOLS

A Research Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree
of Master of Arts.

DONALD I. GARDNER
and
FLORENE FIELD GARDNER

June, 1965

ACKNOWLEDGEMENTS

Many studies aimed at determining the factors causing educational retardation among culturally deprived minority groups have been conducted of the Southwest. In contrast to the findings of many of these studies, the majority and minority groups in the San Luis Valley seem to be in closer cultural rapport at the elementary school level.

Dr. A. M. Potts, Director of the Center for Cultural Studies, and the originator of the project suggested most of the source materials used. It was because of his unflagging interest and personal involvement that the project was brought to a successful conclusion. Dr. Dale Lorimer and Dr. John Turano were consulted often when problems arose in their areas of special interest. Their store of information was always equal to the occasion. The Library staff also was never at a loss to find the source materials and specific publications needed.

After discussing the project with the North Conejos School District Guidance Director, the principals, and all the sixth grade teachers in the Manassa and La Jara public schools, schedules were arranged and a plan of action approved.

Complete and whole hearted cooperation was gladly offered by each of the following: Arthur S. Hawkins, Director of Instruction, North Conejos School District REIJ; Fred Cordova, Elementary Principal, La Jara, Colorado; Robert Montano, Elementary Principal, Romec-Manassa, Colorado; Mrs. Sowards and Mr. Cordova, sixth grade teachers,

Manassa, Colorado Elementary School; Mrs. Thomas and Mrs. Steela, La Jara, Colorado Elementary School. Their interest and continuous aid has been much appreciated by the writers.

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INTRODUCTION

The Problem and Purpose of This Research Study

Among the children of the San Luis Valley there appears to be a measurable difference between the classroom progress of children with a bilingual background and those from the dominant Anglo culture. This study on "The Relation of Age-grade Reading Skills to Environmental-Cultural Factors in the Life-Space of Scholastically Retarded Ethnic Groups in Selected San Luis Valley Public Schools," will attempt to identify some of the factors causing this variation and suggest possible methods for correcting this difference. The study will conform to the following format: general background, hypothesis, scope of the study, purpose of the study, historical background, survey of and choice of standardized tests, analysis of cultural questionnaire, method for obtaining the data, analysis of cultural questionnaire results, correlation of all test results, conclusion, and recommendations.

General Background

In a middle class oriented public school the child of a bilingual family in a minority group is often considered to be retarded in scholastic skills. Yet when one considers the beliefs, behaviors, and artifacts associated with his cultural heritage as they stand in opposition to the culture of mid-twentieth century America, is it any

wonder that is acceptance of this complex pattern of life is an attenuated process? If the task of the school is to help each child reach his greatest potential through equality of opportunity, then America must meet the challenge of these culturally disadvantaged children.

> The preservation of our democratic way of life, the demands of our economy, and the mental health of our people all require that we learn how to educate them effectively.[1]

Hypothesis

There is a positive correlation between age-grade reading skill and the extent of acceptance of the Anglo system of values by certain ethnic groups in selected San Luis Valley public schools.

Scope of the Study

The scope and limitations of the study are as follows:

1. The bilingual children studies herein are those in selected classrooms in the small towns and rural areas of the San Luis Valley, Colorado.
2. The classrooms selected for the study are characteristic of the average classroom in the area and contain most of the children in the eleven to thirteen age group.
3. Four classrooms at the sixth grade level are studied.
4. All the children in each classroom are to be tested, even

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[1]Frank G. Dickey, "A Frontal Attack on Cultural Deprivation," Phi Delta Kappan, XLV (May, 1964). p. 398.

though the emphasis is on the information obtained from those of Spanish-American extraction.

5. The data provided by the Anglo children help to establish the norms for a local dominant culture.
6. The questionnaires have responses from about 100 children in the grade indicated.

Purpose of the Study

After a more than perfunctory reading of the material on the subject available in the Adams State College Library and the Center for Cultural Studies Collection at the same school, the writers came to the conclusion that the education of the culturally deprived child is a problem of no little import and can profitably be considered in the light of his home and community environment.

Historical Background for the Study

With the acceptance of public responsibility for the education of the masses, America embarked upon an educational system that is today dynamic in concept, and committed to the task of inculcating in each new generation those values considered necessary to the American way of life. From the founding of the Republic, through the growing pains of the westward expansion, to the technological problems of the mid-twentieth century, the public school has accepted the responsibility for educating ethnic minority groups for a useful place in an expanding society. During the first one hundred and fifty years it was the children of the European immigrant who expected

to learn through the public school system the cultural mores of America. In the main he came to these shores anxious for a place in a free industrial America. Within three generations the assimilation process was usually complete and the melting pot simmered on.

With the tapering off of European migrations and the preparations for World War II, the acculturation of minority groups took on a different aspect. The Negroes, the Hill Whites, and the Spanish-speaking peoples of the Southwest were caught in a social and industrial transformation that propelled them out of their mores of many generations into a cultural milieu for which they were quite unprepared. Since their former modes of life could not adjust readily to such rapid changes, many have become islands of underpriviledged minorities in a sea of middle class conformity.

While two of the above mentioned minority groups have been part of the American scene since the beginning of our national history, the Spanish Americans were in the Southwest before the colonists left the shores of Europe. The eighteenth century saw the revolt of the thirteen colonies, political changes in Europe, and the westward trek of the American empire builders. Across the Mississippi and the great plains they came into New Mexico to contest a static Spanish culture already two hundred years old. By 1820 the Mexican revolt ended Spain's mercantile domination of the Southwest, but the imprint of her culture continued on. America's increased trade with Mexico to the south and migrations from the east brought the importance of this area to the attention of the military. In 1846, without firing a shot, a group of Missouri Volunteers took over most of what is now the state of New Mexico for the United States. In succession came the

Civil War, the Spanish-American War, and World War I. During this same period the Anglo entrepreneurs in their:

> . . .ventures with cattle, mines, and trade did little to modify the age-old routine of the Spanish-American agricultural village life. Although the leaders often became politicos of importance, yet the people felt but little the transformation of the economy that was coming so rapidly.[2]

Not until World War II made such inordinate demands upon human resources did some of the Spanish-Americans join the fighting forces. Others left their local environment for the first time to work in war plants and other industries. The bustling urban life was far more interesting than the former haunts. With more education, with new ideas, and more material wealth, the lure of Anglo culture was felt in many areas of the Southwest.

While this transformation has taken place quite rapidly in many urban centers, the less congested rural areas are also making their definite progress toward acculturation. It is in this culturally-changing environment that the school is expected to provide the disadvantaged child with an insight into the Anglo culture and its many opportunities.

> One of the greatest challenges facing the United States today is that of giving all Americans a basis for living constructively and independently in the modern age. The requirement is not conformity but for compatibility. To make all people uniform would be as impracticable as it would be inconsistent with American ideals. To give all people a fair chance to meet the challenges of life is both practicable and American.[3]

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[2]Horacio Ulibarri, The Effect of Cultural Differences in the Education of Spanish Americans, (College of Education, University of New Mexico, 1958), p. 10.

[3]Educational Policies Commission, Education and the Disadvantaged American, (Washington 6, D.C.; U.S. Government Printing Office, 1962), p. 11.

When one compares the folk culture of the Spanish American with the all-pervading culture of the Anglos, many outstanding differences come into sharp focus.

> Using almost any index of socio-economic status that might be constructed, the Spanish speaking group will be found, on the average, to occupy a less desirable position than that of the population as a whole. They live in poorer and smaller houses, earn less money, are more likely to be ill, enjoy fewer comforts, own less property, and have less schooling than the people among whom they live. Their condition is the result of the interaction of many factors, among which are the newness of many of them in the United States, their lack of familiarity with Anglo Culture and with urban living, their tendency to live apart and maintain their own institutions whenever possible, and the scarcity of social mechanisms to facilitate communications across ethnic lines.[4]

Is it any wonder then that the offspring of this most important minority group in the Southwest are called, "disadvantaged children in transit."

> They and their parents find themselves at the crossroads of American cultures. Negative influences of our culture confuse them as viewed against many of our positive values. The disadvantaged are left out of various subtle procedures used daily by the dominant culture groups. They may "know their way around" in their own culture but haven't learned the expectations of many ways of the major current American life.[5]

One of the tangible results of our educational system is the greater degree of self-respect acquired by the student as he progresses at a normal pace through the grades. When children of a minority group, because of their cultural background, find themselves

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[4]Alfred M. Potts, 2nd. (ed.), quoted from a paper by Lyle Saunders, Readings for Understanding Southwestern Culture, (Alamosa, Colorado: Center for Cultural Studies, 1963), p. 22.

[5]Alfred M. Potts, 2nd, (ed.), Providing Opportunities for Disadvantaged Children, (Denver, Colorado: Department of Education, 1964), p. 5.

set apart as slow learners, unable to comprehend the meaning of the middle class culture as taught in the classroom, then motivation decreases and progress diminishes.

> The school must seek to expand the mental and physical horizons of the children through planned activities, not only in the school but also in the community. Many of them in the city, as in their earlier homes, have never ventured beyond their immediate neighborhoods. Often, they have no concept of civilization other than their home, school, church, and street, and perhaps the world of television. Fear of embarrassment from new experiences hinder exploration, as do inertia, lack of interest, or practices of segregation; many disadvantaged children feel insecure outside their neighborhoods.[6]

To make education meaningful and effective for Spanish-American children the school situation should contain something more than an arbitrary selection of those subjects that have meaning only in a middle class society.

A careful study of their cultural heritage is necessary, along with the consideration of motives, values and the different interpretations they place upon what to the Anglo teacher may seem to be common American culture patterns.

> The problem of equalizing educational opportunities is greatly accentuated because of the large number of children coming from cultural backgrounds distinct and basically different from the common core of the American culture. The Spanish Americans, while in a state of transition and moving towards acculturation, can be found on a continuum from no acculturation to maximum acculturation.[7]

Does formal school education overcome the "errors" of informal

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[6]Educational Policies Commission, Education and the Disadvantaged American, (Washington 6, D.C., U. S. Government Printing Office, 1962), p. 18.

[7]Ulibarri, op. cit., p. 3.

education in the home? Is the message of the American middle class way of life making an effective impression upon the parents of the minority group child in the elementary school? In the assimilation of ethnic groups there are often three observable levels:

> The base line of the Americanization process is the traditional folk culture derived from Mexico . . .strongly influenced by United States technology and economic factors, Mexican-American folk society still retains the core values of Mexican folk culture.
>
> The second level of acculturation embraces those individuals who are caught in the value conflict between two cultures. They were born into folk society but have had enough education and experience outside of their own group to recognize the conflict between the Mexican values they leanned from their parents and the values of United States Society. These people frequently learn to compartmentalize their lives, living by their parents' values on some occasions and by the values of the larger American society on others. . . .
>
> The third level of acculturation includes those Mexican-Americans who have achieved status in the English-speaking world. These individuals see science and progress as the twin keys to a brighter tomorrow.[8]

It is generally conceeded that, in the main, there are three definable barriers to be overcome in the acculturation process for children with a rural Spanish-American background. They are:

Language Barrier

When a child starts school with a meager knowledge of English, it is a major problem for him to exchange his native tongue for the bewildering symbols and sounds of books and classroom. The Anglo child with a six year head start has many advantages, even though the pressure to conform may impel the Spanish-American child to greater effort.

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[8]William Madsen, The Mexican-Americans of South Texas, (New York: Holt, Rinehart and Winston, 1964), pp. 2 and 3.

Experience Barrier

When comparing the life-space of the Anglo child with that of the Spanish-American child many differences are evident. A middle class child may have traveled with his parents on summer vacations to distant areas. There is probably an encyclopedia at home; if not he has been taught to use a library. Parents with a high school education would be the rule, not the exception. The Spanish-American child by Anglo standards has a limited geographical horizon, not enough books of the kind to stimulate his intellectual curiosity and the parents who are often unable to appreciate the problems of the learning situation. How much harder for the latter child to adapt to the environment of a middle class oriented school.

Culture Barrier

In the Southwest the Spanish-speaking minorities, although intent primarily upon economic and social equality, raise some problems that differ from those created by other minority groups. The European came prepared to accept a new environment and change accordingly. The Negro who already knows the language considers his need to be equality of opportunity. The Hill Whites with only a relatively minor language barrier must hasten to overtake the twentieth century that has left him behind.

The problems of these groups are less complex in comparison with the traditional goals of the Spanish-Americans who are next to their ancestral homeland and its rich historic background of Mayan and Aztec civilizations. They are a people proud of their ancestry. They had a stable agrarian society in the Southwest before the Anglos

came. Their language, while different, still fits their culture better than any other. Specifically, the economic and social pressures toward conformity are the mitigating factors in their acceptance of acculturation. In addition, the expropriation of their lands by the Anglos precluded the continuation of their agrarian economy and the rapid spread of industrialization diminished the need for their unskilled labor.

Today in many parts of the Southwest they are a people in a quandary. In order to live adequately they must accept the majority culture and yet there are features of their folk culture for which there is no Anglo substitute. They are learning to accept the dominant culture as a one-way process. The rewards, right or wrong, are always dispensed by the majority group. Once the rewards for conformity are recognized, the minority group learns in time to accept the inevitable. When the value systems are similar, acculturation is not too difficult a process, but when, as is so often the case, they are in opposition the problems multiply. Ulibarri[9] enumerates very succinctly in the following manner some of the more pronounced cultural differences:

Spanish-speaking	Anglo
Subjugation to nature	Mastery over nature
Present time orientation	Future time orientation
Being	Doing
Work to satisfy present need	Work for works sake
Dependency	Independency

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[9]Horacio Ulibarri, Perplexities for the Individual in Transition, Paper presented at the Conference on Cultures of Southern Colorado, Alamosa, Colorado, March 16, 1964, p. 4.

(continued)

Spanish-speaking	Anglo
Belonging to the family	Individualism
Subsistence type of economy	Profit making economy
Cooperation	Competition
Reluctant to change	Fad for change
Non-scientific interpretation of natural phenomena	Scientific explanation of all behavior and natural phenomena
Low level of aspiration	Climb the ladder of success

San Luis Valley Cultural History

The earliest people to settle in the Valley were the Indians who migrated from the areas immediately to the south. Actually, Anglo and Spanish settlements appeared later than they did in most of what is now New Mexico. Organized occupation of the Valley didn't begin until after Mexico ceded the area to the United States.

In spite of delayed colonization the culture pattern can be considered as an extension of that extant in New Mexico of the same period, for it was a geographic part of that territory until 1861. Accepting the frontier environment as a mitigating factor in the transfer of cultural traits, the impress of the Spanish is even yet quite extensive and inclusive.

Some of their more positive contributions are as follows:

1. A form of architecture peculiar to the Southwest and endemic in its application to the needs of the local environment found general acceptance.

2. The religious concept of Christianity was introduced with

all its catholic ramifications.

3. A system of courts and laws was imposed, and the concept of central rule acted as an impediment to inter-tribal wars.

4. Personal pride and individual worth brought a sense of accomplishment to those willing to try.

5. To foster a community spirit the hacienda and the paternalistic patron gave meaning to the mundane life of the peon.

6. With the introduction of beasts of burden (horse, mule and burro), wresting a living from the land became easier, and the growing of new types of farm crops with irrigation encouraged a degree of opulence never dreamed of in an earlier day.

7. This affluence took many forms. There was a system of coinage that expanded in the Anglo period, new art forms based on religious themes, but always with an historic-derived expression, and schools, limited largely to primary religious education.

Set over against these positive contributions there are a few counterbalancing or negative contributions for which the Spanish must accept responsibility:

1. The Indians were restricted in their free movement and in some cases reduced to a type of serfdom. This dependent status extended to the political situation to a degree that eliminated satisfactory, self-government for the aboriginal peoples.

2. In an effort to develop exportable products great areas were denuded of grass and shrubs through overgrazing of the land by enlarged herds of sheep and goats.

3. The Indians' functional religious beliefs were assaulted

by the white man's Christian theology which often failed to offer him the security that the belief in his local gods engendered. There was no Christian substitute for the rain spirit.

4. The white man's diseases, his free use of alcohol, and his some-times-lax moral code have created problems that persist even to the present day.

C H A P T E R I I

AREAS FOR MEASUREMENT

What to Measure

Accepting as a premise that the school has a responsibility to all the children who enter its doors, and that the children from minority groups often come with meager background experiences, and that since the majority culture makes the economic and social demands as well as offers enticing rewards, it would seem logical that these children need more knowledge of and experiences in the major culture.

Language is an important product of interaction so that man may exist. "Since people must reach a kind of consensus of word-reactions in order to communicate, they tend to reach a consensus of individual perceptions. There is a definition and redefinition of one another's actions."[1] This consensus of perception would be understood by those in an oriented social group but would leave the unoriented at a disadvantage in that group. Restriction of experiences in a given milieu would seem to hamper the individual in his basic understandings and responsiveness to a language into which he has been thrust rather than nurtured. The Spanish-American child finds himself suddenly thrust into a school situation which not only is replete with schoolmates having a different consensus of perception but often a language other than the one with which he has expressed himself for from five to seven years. Not only is he lacking

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[1]Sherif, Muzafer, and Carolyn C. Shrit, An Outline of Social Psychology, revised edition, (New York: Harper and Brothers, 1956), p. 6.

the tools for expression, but he also lacks the experiences those tools could communicate.

The understanding and use of language seems the most logical area within the framework of the school experience to point up the influence, if any exists, of the Spanish-American cultural background on retardation in school achievement. As the oral use of language is much more difficult to measure or test, reading gives promise of being the best area of trying to find this relationship between school retardation and cultural handicaps.

Whom to Measure

A choice of sixth grade pupils for the testing has been made for various reasons. The Tireman, Keston, and Mahakian studies have pointed out some specific problems in bilingualism for these children:

> Spanish-speaking children understood written English better than they understood spoken English. . . . These children suffered a handicap because outside the school they hear and speak little English.[2]

Most of their writing and reading experience was in school and in the English language. Their familiarity with the mother tongue was almost entirely verbal and in non-academic areas.

> The performance of the subjects [on the English version] was significantly better than their performance on the Spanish version of the test. The probable cause of this significant difference is the fact that the level of development of the English language used by the children

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[2]Lloyd S. Tireman and Velma E. Woods, "Aural and Visual Comprehension of English by Spanish Speaking Children," The Elementary School Journal, XL (November, 1939), p. 209.

> tested is higher than that of the Spanish language which they use. . . . The development in the use of the Spanish language by these children ceased when they entered grade school and began their formal education in the English language.[3]

Children from Spanish-speaking homes were tested in the primary grades and found to rate 7.6 points higher in the Spanish intelligence test. However, in grades four through seven, though their Spanish vocabulary was higher by the fifth grade, they understood the English paragraph better.[4] Mahakian also states after the study, "English becomes the dominant language for such bilinguals from the fifth grade on."[5]

Apparently by the sixth grade these children have academically experienced English long enough to make testing more feasible than at an earlier age. Also, at this age it would be more reasonable to expect adequate information from them on questionnaires about their home environment.

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[3]Morton J. Keston and Carmina Jimenez, "A Study of the Performance on English and Spanish Editions of the Stanford-Binet Intelligence Test by Spanish-American Children," The Journal of Genetic Physiology, LXXXV, Second Half, (December, 1954), p. 265.

[4]Charles Mahakian, "Measuring Intelligence and Reading Capacity of Spanish-Speaking Children," The Elementary School Journal, XXXIX, No. 10 (June, 1939), p. 762.

[5]Ibid., p. 768.

CHAPTER III

TYPE OF READING AND INTELLIGENCE TESTS NEEDED

Recognizing that tests at best are very crude instruments to do a job that is as complex and baffling as the human organism itself, and yet being the best means we have so far developed, we must proceed to choose and use them with as much intelligence and caution as we can muster. "The tester must always be cognizant of the limitations of standardized instruments. . . . Appraising a child's disabilities in reading should be approached with humility."[1]

There are special problems at hand. Not only must the retarded reader be identified, but for the purpose of identifying acculturation's responsibilities for this retardation, those whose lack of mental abilities have inhibited their learning, must be eliminated. The tests chosen should be well standardized so that some degree of confidence in the results can be expressed. The fluency with which a child comprehends directions can be a factor. Group reading tests are less time consuming than an individually administered test, but "Most clinicians feel that these [group ahcievement test] results are not as sensitive as those of the individual test."[2]

Since there is a need to differentiate between a child's reading ability and his reading capacity, it would become clear at the outset that more than one test will be needed, perhaps a reading

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[1]Donald L. Cleland, "Clinical Materials for Appraising Disabilities in Reading," The Reading Teacher, XVII (March, 1964), p. 433.

[2]W. D. Tortenberry and B. J. Broome, "Comparison of the Gates Reading Survey and the Reading Section of the Wide Range Achievement Test," Journal of Developmental Reading, VII (Autumn, 1963), p. 67.

test and an intelligence test. Now, will one reading test do an adequate job of measuring reading retardation? Will the ordinary intelligence test work effectively for the bilingual child? A review of some of the current trends and attitudes might be helpful at this point.

In the area of predicting reading achievement Piessas reports from authorities in the field:

> In the intermediate grades on the average about one-third of the pupils are overrated from one to five levels, one-third are rated properly, and one-third are under-rated by the standardized test.[3]
>
> The standardized reading test scores are significantly higher in the sixth grade than their reading performances as determined by an informal reading inventory.[4]

Piessas[5] believes that the reasons most reading tests show scores above performing ability might be attributed to the fact that the higher creative reading process is usually not evaluated and emphasis is placed upon measurement of work meanings and limited comprehension skills. Most of them do not measure, he says, analization of critical thinking and the discerning of free and independently personal responses of the reader. Unlike the tests, in actual reading there are no carefully worded choices to choose from,

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[3]G. P. Piessas, "Another Look at the Reading Score." Education, LXXXIII (February, 1963), pp. 344-7. quoting, Sister Mary Julitta, "Selection and Use of Standardized Reading Tests," Evaluation in Reading, Supplementary Education Monographs, No. 88, (Chicago: University of Chicago Press, 1957), p. 122.

[4]Piessas, op. cit., quoting, Robert A. McCracken, "Standardized Reading Tests and Informal Reading Inventories," Education, (February, 1962), p. 368.

[5]Piessas, op. cit., p. 369.

but the reader must associate words with meaning and react to ideas independent of such helps.

Chall believes differently. "Many children, especially those who lack confidence or have an unusually slow rate of reading, may receive standardized test scores showing a minimal estimate performance."[6]

Harris finds the middle ground. "In most instances, standardized scores generally reflect the instructional level. For those who find materials too difficult, or who mostly guess, the score may indicate their frustration level in reading."[7]

Authorities seem to vary widely from the point of feeling that tests overrate achievement to feeling that they show under-achievement. Perhaps we would, then, be on rather safe ground to take the middle approach and believe they may come near actual measurement of the instructional level.

Underestimation of achievement on reading test scores would make any small evident correlation between acculturation and reading retardation even more significant, and overestimation would make the difference less significant. However, so many studies have indicated that bilingual children are retarded both in age and grade classification in their reading abilities that we could hardly expect too much overrating from this testing.

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[6]Piessas, op. cit., quoting, James S. Chall, "Interpretation of Results of Standardized Reading Tests," Evaluation in Reading, p. 135.

[7]Piessas, op. cit., quoting, Albert J. Harris, How to Increase Reading Ability, (New York: Longmans Green, 1953), pp. 199-200.

From recent studies we have indications that retardation in reading does show up in testing bilinguals:

> As the minority, [the Indian children in this study] progresses, their achievement is farther and farther behind, on the average. They are also educationally retarded an additional two years in achievement on standardized tests. Spanish-Americans in the same study showed one year educational retardation in the fifth and sixth grades, but also they were one year overage in these grades, making them two years retarded.[8]

> Severity of the educational retardation at all grade levels is obvious.[9]

> Bilingual children included in this study appeared to be retarded in both achievement (Reading, language, and arithmetic) and ability (performance and verbal). . . . In one school the children were retarded a full year on the basis of age in grade when they entered the first grade. In all three schools studied the children were behind their contemporaries academically by the time they reached the second grade.[10]

In another study:

> These results show a definite pattern of advanced educational retardation, increasing with years in school attendance.[11]

Concern in this study, apparently, will center around the underachiever on reading tests. What precautions or understandings

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[8]The Indian Research Study, Section I, Miles V. Zintz, Research Director, (Albuquerque: The University of New Mexico, 1957-1960), pp. 91, 92.

[9]Ibid., p. 80.

[10]A. J. Mitchell, "The Effect of Bilingualism in the Measurement of Intelligence," The Elementary School Journal, XXXVII (September, 1937), p. 31.

[11]Investigation of Mental Retardation and Pseudo Mental Retardation in Relation to Bilingual and Sub-Cultural Factors, College of Education, Arizona State University, Tempe, Arizona.

can be implemented that will make the climate best suited for the underachiever's test taking?

> This urges upon the writer the interpretation that the reading test scores contain the psychometric elements of carelessness, lack of understanding of the items, and response bias. This being the case, it would appear that diagnoses of reading behavior based on standardized reading tests may be in error unless carelessness and test-taking attitudes are controlled.[12]

Another author states:

> We know from experience and from investigation that the emotional state of an individual at the time he is learning a task has as definite an influence upon his efficiency as have the mechanical processes involved.[13]

After choosing the reading test, the administrator needs to prepare himself for giving directions that can be understood and encouraging a climate as free of emotionalism as possible. Even then it must be remembered that there probably are some indications of carelessness, bias in responses, feelings of inadequacy to effect responses, and emotion carried from without.

Some interesting ideas in recent literature about methods of measuring reading capacity will be noted. Views among writers are quite diverse.

> What proceedures have been developed to determine a child's reading capacity? Some believe intelligence tests will do it. Others believe a combination of criteria is necessary, others have developed indexes

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[12]Norman M. Chansky, "A Note on the Validity of Reading Test Scores," The Journal of Educational Research, LVII (October, 1964), p. 90.

[13]G. K. Dolan, "Effects of Individual Counseling on Selected Test Scores for Delayed Readers," Personnel and Guidance Journal, XLII (May, 1964), p. 916.

> and calculated suitable regression equations. All of these have merit. . . . Some are very complex. Is there an informal method? A simple adaptation of functional testing could be the answer. The teacher could have the child read orally short passages of increasing difficulty from carefully graded books or materials such as Smith's Graded Selections for Informal Reading Diagnosis.[14]

Recently much has been said about the best methods of predicting reading performance. Toussaint quotes Harris, Broom and Strang as believing that reading expectance can be assessed from measures of intelligence. According to Harris, a reliable estimate of reading retardation can be determined by subtracting a child's reading age from his mental age (reading based on both oral and silent reading) (oral receiving half the weight of silent). A difference of six months would classify a primary pupil as an impared reader. Nine months difference in the fourth and fifth grade would label him as retarded, while for those above the fifth grade, one year's difference would show the reader retarded. He also advocated giving several reading tests and two intelligence tests to get a more accurate sampling.[15]

In Cleland's[16] survey of clinical materials for appraising disabilities in reading he refers to the following authorities in the field. Bond and Tinker believe mental age alone has "questionable

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[14]L. H. Toussaint, "How is Reading Predicted," The Journal of Developmental Reading, V (September, 1962), p. 205.

[15]Ibid. quoting Harris, Op. cit.,; Eustance M. Broom, "A Study of Race and Sex Differences in Reading Comprehension," Journal of Educational Research, XXXIII (April, 1941), pp. 587-593; Ruth Strand, Constance M. McCullough, and A. E. Traxler, Problems in the Improvement of Reading, (New York: McGraw-Hill, 1955), pp. 249-50.

[16]Cleland, op. cit., pp. 428-34.

validity." Adams and Torgenson also question mental age alone. Monroe believes mental age, chronological age and arithmentic accomplishment combined to the job. Moe puts his faith in mental age and an auditory test. Toussaint believes in a combination of mental and arithmetic computation and a listening test (listening correlated more highly with reading achievement than did mental age).

If an intelligence test is used there are possibilities of correlating it with other tests for interesting results.

Then intelligence testing is the next area of concern. The need is to select these tests for their established reliability, for directions which can best be understood by these bilinguals and to find a test which will give weight predominately to performance tasks rather than purely verbal tasks. The goal is not now to find achievement in reading but rather to identify an intelligence which would make greater achievement possible if educators had some tested methods to apply.

Several statements by men in the field will point up some of the difficulties:

> Standard intelligence tests are inadequate instruments for measuring the native ability of different races and. . .can not be used for measuring the capacity of different social levels within our own society.[17]

> There is a language handicap of from six to eight months of mental age on the test [Stanford Revision of the Binet-Simon Tests] for children

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[17]Walter S. Neff, "Socioeconomic Status and Intelligence," The Psychological Bulletin, XXXV (December, 1938), p. 761.

thirteen years old coming from foreign-speaking homes.[18]

> Children with Indian or Mexican-American backgrounds consistently score lower on standardized intelligence tests than do urban middle class Anglos. This fact is one contributor to the labeling of such children as "mentally retarded" or "slow learning."[19]

The first reaction might be that since these children come from homes where Spanish is spoken, an intelligence test in Spanish would be more equitable for them. Studies have been conducted with this in mind.

Mitchell[20] felt that an intelligence test administered in the English language to foreign-language-speaking children is not a fair test of the intelligence of such children. This would seem to be quite obvious. However, Mahakian[21] carried out a study with the Spanish-speaking children of California and found that these children are rated, on the average, approximately 7.6 points lower than their true intelligence quotient, even when measured in the language that they understood better. Keston carried out a study on the performance on English and Spanish editions of the Stanford-Binet Intelligence Test by Spanish-American children and found that:

> Although it was suggested that the English test

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[18]Fred C. Walters, "Language Handicap and the Stanford Revision of the Binet-Simon Tests," The Journal of Educational Psychology, XV (May, 1924), p. 279.

[19]Investigation of Mental Retardation and Pseudo Mental Retardation in Relation to Bilingual and Sub-Cultural Factors, op. cit., p. 97.

[20]A. J. Mitchell, loc. cit.

[21]Mahakian, op. cit., pp. 760-768.

> does not give an accurate measure of the intelligence of these bilingual children, it is nevertheless recommended that if the Stanford-Binet test is going to be used, the English form will give more fair and more accurate results than the Spanish version.[22]

This is probably due to some of the factors mentioned earlier as to the areas in which the Spanish-American children have used the two languages. The language at home [Spanish in this instance] is usually verbal and non-academic, while the English at school includes reading and writing. Since neither of their languages seems adequate for intelligence testing purposes, where is the tester to turn?

> Other studies confirm the observation that children with backgrouns similar to the population of this study [bilinguals and sub-cultures] often perform better on "non-language," "non-verbal," or "performance" tests than they do on highly verbal tests.[23]

Cook[24] concluded that educational and vocational guidance should be based upon results from non-verbal intelligence scales as well as upon more commonly used verbal scales.

For the purpose of testing bilingual children's intelligence in this study the wise choice would seem to be a "non-language," "non-verbal," or "performance" test. With the use of an intelligence test in this study we are specifically trying to identify those

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[22]Marton J. Keston and Carmina Jimenez, "A Study of the Performance on English and Spanish Editions of the Stanford-Binet Intelligence Test by Spanish-American Children," The Journal of Genetic Physiology, LXXXV, Second Half (December, 1954), p. 264.

[23]Investigation of Mental Retardation and Pseudo Mental Retardation in Relation to Bilingual and Sub-Cultural Factors, op. cit., p. 97.

[24]John Munson Cook and Grace Arthur, "Intelligence Ratings for 97 Mexican Children in St. Paul, Minnesota," Exceptional Children, XVIII (October, 1951), pp. 14, 15.

students among the poor readers who show facets of intelligence other than their verbal competence. It seems justifiable to forego the "verbal" intelligence test. If the retarded reader showed a very low score in non-verbal areas, it could be suspected that it would be unfair to attribute his poor reading to his environment rather than his lack of native ability.

Whose Tests to Use

In order that the field will be narrow enough for practical purposes the tests considered are eigher those used in similar and recent studies or those which have been recommended by men who are working in the testing field and are acquainted with this study.

On the next pages are listed testing programs of seven studies attempting to measure the retardation of several types of minority ethnic groups.

1

THE PUERTO RICAN STUDY

1956

Testing Devices:

1. USE (for Understanding Spoken English) This test was developed by the Puerto Rican Study Group. It was a picture-marking test constructed to measure a range of ability to understand spoken English among pupils learning English as a second language.

2. Gates Reading Tests.

3. Lorge-Thorndike series of non-verbal tests of intelligence.

The staff made this comment, "The data in this report have been secured to add depth and dimension to the knowledge that administrators and teachers already have about the wide diversity of ability and achievement among pupils of Puerto Rican background in the New York City public schools."[1]

2

THE INDIAN RESEARCH STUDY

1957-1960

Testing Devices:

1. Gates Reading Survey test
   (This test was given at the beginning of the year.)

2. Idioms Test
   (This test was prepared by Maurine Dunn Yandell and Miles V. Zintz.)

3. McKee's Inventory of Phonetic Skills

4. Gates Reading Survey Test, series II
   (This test was given at the end of the year.)

"The median score of 3.3 represents a reading retardation of almost two years. The test used was a survey test for third through tenth grades."[2]

3

INVESTIGATION OF MENTAL RETARDATION
AND PSEUDO MENTAL RETARDATION

1960

Testing Devices:

1. Grace Arthur Point Scale (II), 1947, Revision

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[1]The Puerto Rican Study, Casy J. Morrison, Director, "Who Are the Puerto-Rican Pupils in the New York City Public Schools?", Sponsored by the Board of Education of the City of New York, under a Grant-in-Aid from the Fund for the Advancement of Education, 1956.

[2]The Indian Research Study, op. cit., p. 141.

(This test was given the first year.)

2. Wechsler Intelligence Scale for Children, Vocabulary plus all performance scales. (This test was given the second year.)

3. Grace Authur Point Scale (II), 1947, Revision (This test was givem again the third year.)

4. Gates primary Reading, Advanced (This test was given the third year.)

5. California Achievement, Otis Beta (This test was given the third year.

The study group states that the group tests were administered as they would have been done normally by each of the schools.[3]

4

THE EFFECT OF CULTURAL DIFFERENCE IN THE EDUCATION OF SPANISH AMERICANS

1958

Testing Devices:

1. New Standard Vocabulary Test

2. Gilmore Oral Reading Test

3. Test of Idiomatic Expressions

4. Iowa Tests of Basic Skills

"These results show a definite pattern of advanced educational retardation, increasing with years in school attendance."[4]

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[3]Investigation of Mental Retardation and Pseudo Mental Retardation in Relation to Bilingual and Sub-Cultural Factors, op. cit.

[4]Horacio Ulibarri, The Effect of Cultural Difference in the Education of Spanish-Americans, (Albuquerque, New Mexico: College of Education, University of New Mexico, 1958), p. 98.

5

THE EFFECT OF CULTURAL DIFFERENCES IN THE EDUCATION OF APACHE INDIANS

1960

Testing Devices:

1. The New Standard Vocabulary Test

2. Gilmore Oral Reading Test

3. A Test of Idiomatic Expressions

4. Metropolitan Reading Readiness Tests

"One of the most serious implications from these data is that these children may be pushed into formal reading and writing situations before they have acquired sufficient language background to understand what is being taught."[5]

6

MEASURING INTELLIGENCE AND READING CAPACITY OF SPANISH-SPEAKING CHILDREN

1939

Test:

Durrell and Sullivan Reading Capacity Test,
Intermediate Test
(This is a non-language test for grades 4-7.
There is a Spanish translation of directions.)[6]

7

THE EFFECT OF BILINGUALISM IN THE MEASUREMENT OF INTELLIGENCE

1937

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[5]Edward A. Marinsek, The Effect of Cultural Differences in the Education of Apache Indians, (Albuquerque, New Mexico: College of Education, University of New Mexico, 1960), p. 75.

[6]Mahakian, op. cit., pp. 760-768.

Test:

> Otis Group Intelligence Scale, Primary
> (This test is prepared for grades 1-3.
> Instructions may be given in both English
> and translated Spanish.)[7]

As the tests cited in the forementioned studies were chosen to measure similar areas of mental ability and reading achievement and the children tested seem to be of similar minority ethnic groups to those to be tested in this study, each test used will be considered separately.

Reading Tests

Gates Reading Tests

Use was made of Gates Reading Tests most frequently. The Gates Reading Survey Test was used at the beginning and end of The Indian Research Study. Gates Primary Reading, Advanced, was used in Investigation of Mental Retardation and Pseudo Mental Retardation in Relation to Bilingual and Sub-Cultural Factors. Gates Reading Tests were used in The Puerto Rican Study.

"This test (Gates Reading Survey Test) measures achievement in various aspects of reading [speed and accuracy; vocabulary; level of comprehension.]"[8] Spitzer says, "It does provide. . .a survey test and if the user keeps in mind its limitations, its use should be valuable in instruction."[9] Holberg remarks, "It is the most valuable

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[7]Mitchell, op. cit., p. 30.

[8]Cleland, op. cit., p. 434.

[9]Oscar Krisen Buros, ed., The Third Mental Measurements Yearbook, (Hiland Park, New Jersey: Gryphon Press, 1959) p. 514.

survey-type reading test at the present time."[10]

The Iowa Tests of Basic Skills

These tests were used in the study, The Effect of Cultural Differences in the Education of Apache Indians. This is a test of analytical reading and directed reading pointing up analysis skills and location skills. Hobson remarks, "The reading selections in both tests appear to be interesting and well chosen."[11] Constance M. McCullough wrote, "Their sound insistence within the test itself upon comprehension questions that require genuine reading ability and genuine thought is admirable and somewhat unusual in the commercial field."[12]

The Metropolitan Reading Readiness Tests

The tests used in the study, The Effect of Cultural Differences in the Education of Apache Indians, were prepared for kindergarten testing. They would not be useful in the sixth-grade testing of this study. However, the Metropolitan Achievement Tests contain a reading section which Hobson[13] indicated as having narrow grade range, good scaling, an excellent manual, and an outstanding general purpose. Margaret McKim[14] believes it is outstanding in measuring paragraph reading ability and work knowledge and has its greatest value as a

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[10]Buros, loc. cit.

[11]Buros, op. cit., The Fifth Mental Measurements Yearbook, p. 762.

[12]Ibid.

[13]Buros, op. cit., The Fourth Mental Measurements Yearbook, p.583.

[14]Ibid., p. 584.

general achievement test in reading at various grade levels.

The New Standard Vocabulary Test

This test, used in both the studies, The Effect of Cultural Differences in the Education of Spanish Americans and The Effect of Cultural Differences in the Education of Apache Indians, is a multiple choice vocabulary test of graduated difficulty, reprinted from the Educational Edition of the Reader's Digest.

Durrell and Sullivan Reading Capacity Test

Mahakian in his study, Measuring Intelligence and Reading Capacity of Spanish-Speaking Children, used this test. It is a non-verbal test for grades 4 - 7 with questions answered by pictures. Taussaint recommends it. There is also a Spanish translation of directions available. In addition an achievement test is offered. Maxwell states of the two, "The underlying concept of this test is an interesting one. The exact paralleling of the content and structure of the two tests, one verbal and the other non-verbal, is ingenious and logical, but not necessarily psychologically valid."[15]

The California Reading Test

This is a subtest of the California Achievement Test used in the study, Investigation of Mental Retardation and Pseudo Mental Retardation. Flanagan says, "It is this reviewer's opinion that the California Reading Test will be found a valuable tool in appraising the progress of pupils with respect to the important skills of vocabulary

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[15]Buros, op. cit., The Fifth Mental Measurements Yearbook, p. 760.

and reading comprehension."[16] Hobson states, "In general, this is a well thought-out series of tests which deserves its wide use."[17]

Gilmore Oral Reading Test

In the two parallel studies of the effect of cultural differences in the education of Apache Indians and of Spanish-Americans, the Gilmore Oral Test was used. This is an individually administered test purporting to measure accuracy, comprehension and rate of reading. Duggins says,

> One of the outstanding advantages of the test is that no training is required to administer it satisfactorily. . . . The reviewer is of the opinion that the face validity of the test is so obvious that the scanty statistical evidence of validity should not be a deterrent in its use.[18]

Reynolds reviews it in this way:

> Teachers and reading diagnosticians will probably prefer this test over most other tests of similar type. . . . As compared with most other oral reading tests this one can be administered and scored in quite an objective fashion.[19]

The Idioms Test

Three of the foregoing studies used this test. Maurine Dunn Yandall and Miles V. Zintz compiled the test with the intent of measuring how much these children understood about the unusual expressions found in their elementary school readers. Each idiom is

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[16]Buros, op. cit., The Fourth Mental Measurements Yearbook, p.530.

[17]Ibid.

[18]Buros, op. cit., The Fifth Mental Measurements Yearbook, p.767.

[19]Ibid., p. 768.

matched with a meaning by marking a choice of one of four possible answers.

McKee's Inventory of Phonetic Skills, Level Three

Since the pupils at the end of grade three are expected to answer most of the 130 items on this test correctly, there are no norms available. Auditory discrimination of the following phonetic and structural elements are tested: initial consonant and consonant-blend sounds, final consonant sounds, vowel sounds, prefixes and suffixes, and common syllables. This test was used by The Indian Research Study.

Two of the other outstanding reading tests in the field should be noted.

The Stanford Achievement Test: Reading

Gage states, "All in all, the Stanford test impresses this reviewer as the useful, plodding, dependable work horse that can serve the middle of the road school system well."[20] Helen Robinson indicates that this test measures comprehension and word meaning well and had good content clues. She states that it is a "dependable gross measure."[21] Agatha Townsend[22] depends upon its experienced authorship and the backlog of statistical study.

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[20]Ibid., p. 699.

[21]Ibid., p. 754.

[22]Ibid., p. 755.

The Durrell Analysis of Reading Difficulty, New Edition

This is an analytical test assessing the reading skills of students who are mildly disabled in reading. The areas tested are: oral reading, silent reading, listening comprehension, work recognition and word analysis.

Choice of a Reading Test

The Idioms Test, McKee's Inventory of Phonetic Skill, and the New Standard Vocabulary Test are all three used to sample very specific areas of reading. The phonetics test is used to measure the tools for recognizing words. The idioms and vocabulary tests measure the understanding of meanings. None of these tests measure reading itself, but rather skills connected with reading. Since the purpose of this study is to measure present achievement rather than the skills needed to achieve, further consideration will not be given to them. Rather than marking the achievement of the child their intent is to help the teacher identify the causes of reading disability. The Durrell Analysis of Reading Difficulty would fall in the same category.

It has been noted that an oral test would be, perhaps, more accurate than the group test. However, the time element would preclude its use in this testing situation. The Gilmore test is then eliminated.

Three of the remaining tests are of similar type, measuring speed, accuracy, vocabulary, and comprehension. These are the Gates, California, and Stanford. Perhaps the California and Stanford have the greatest backlog of statistics on the general population, but the Gates has been widely used and has special merit here because of its

recent application to bilingual testing.

Since the Iowa test is so definitely analytical it is eliminated.

The final selection is the Gates Reading Survey Test. It has the added advantage of taking less time from the school program than a battery of tests would require.

Intelligence Tests

Three of the studies cited did not use an intelligence test to identify those who are not equipped to master reading. The purpose of this study is perhaps more specific.

The Otis Group Intelligence Scale: Primary

This test is for only grades one to three and therefore does not fit the present purpose. However, it is interesting to note that this test can be administered in both English and translated Spanish.

The Lorge-Thorndike Intelligence Test

There are both non-verbal and verbal versions of this test. A Spanish edition is also available for the non-verbal batteries. Freeman states that these tests are, "among the best group tests available from the point of view of the psychological constructs upon which it is based and that of statistical standardization."[23] It was standardized on 136,000 children in 44 communities and 22 states. Correlations with Stanford-Binet and the WISC were quite high. This test was used in the Puerto Rican Study.

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[23] Ibid.

The Grace Arthur Point Scale (II): 1947 Revision

Authur's adaptation of the Leiter International Performance Scale is administered individually and may be conducted by pantomine. "A limited number of studies involving this test [the Arthur Performance Scale] and the W I S C indicates that while they are not fair to all cultures, many bi-cultural groups scored quite well on these tests."[24] Zintz says, "Notable exceptions to general trends of apparent retardation in test performance were the results of the Knox Cube and the Sequin Form Board sub-tests in the Grace Arthur Point Scale."[25] The initial cost of the set of test materials is $130.00. The set is used, however, for all further testing situations along with a purchased score card for each child.

The Wechsler Intelligence Scale for Children

Both verbal and performance I.Q. scores are standardized on the same population. The materials are largely self-explanatory and could be made clear even through pantomine. "It can be administered to both uni- or bi-linguals whether Spanish or both Spanish and English are used in the home. It might offer some evidence as to the handicapping influences of bilingualism in its particular minority group."[26]

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[24]Alfred M. Potts, ed., "Developing Curriculum for Indian Children," The Center for Cultural Studies, Adams State College, Alamosa, Colorado.

[25]The Indian Research Study, op. cit.

[26]Grace T. Altus, "WISC Pattern of a Selective Sample of Bilingual School Children," Journal of Genetic Psychology, LXXXII-LXXXIII (December, 1953), pp. 241-48.

Pintner General Ability Tests: Non-Language Series

The test items were selected for their discriminative power. The scores for over 6,000 children in the four yearly age groups from $9\frac{1}{2}$ to $13\frac{1}{2}$ were used in the standardization. Use was made of three consecutive school grades in eleven communities from different sections of the United States: Wisconsin, Michigan, California, Pennsylvania, Massachusetts, and Washington.

Reliability data for the two forms of the test are presented as split-half correlations of .858 and .890 corrected by the Spearman-Brown formula and probable errors of measurement of 4.1 and 3.7. The standard deviations of median scores are 16.0 and 16.4.

The manual suggests its use as a supplement to the Pintner Verbal Test in order to get a better measurement of all-round mental ability, as a measure of the type of mental skill which functions in school and life situations involving shop work, drafting, and vocations of a mechanical nature, and as a substitute for a verbal test in measuring the hard-of-hearing, deaf and the foreign-language speaking. Some statistical evidence is presented in defense of the validity of the test for the last-mentioned purpose.

> It appears to be the best test in its field. It is gratifying to the reviewer to find a test manual as detailed as this one and a non-language test which is as well constructed as this one.[27]

This test closely parallels the Pintner Intermediate Test (a verbal test) and it would be ideal if they could both be given to the same group.

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[27]Buros, Third Mental Measurement Yearbook, Carroll A. Whitmer, contributor. op. cit.

Choice of an Intelligence Test

As mentioned before, the Otis Group Intelligence Scale is not prepared for sixth grade use and is therefore eliminated. The Grace Arthur Point Scale, though showing signs of being more accurate in testing bicultural groups than many verbal tests, has two handicaps as far as this study is concerned. Individual administration would consume a great deal of time and the initial cost of materials is high.

The Lorge-Thorndike Intelligence Test and the Wechsler Intelligence Scale have both been well standardized and both give evidence of being among the best tools available for measuring bilingual children. Both have shown quite high correlations with the Stanford-Binet.[28]

If there were time within the school program and within the scope of this study, interesting use mught be made of the W I S C's possibilities of pointing out reading disability as well as measuring intelligence. As it is a test which must be administered individually and there is special training required for the tester, it is eliminated.

A combination of the Pintner Intermediate Test and the Pintner General Ability Tests: Non-Language Series offers a dual intelligence sampling from differeng points of view. Again, the program must be pared to conform to time limitations. As one purpose is to try to identify those students who, though doing poorly on a reading test,

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[28]Buros, op. cit. s.v.

have mental capacities in other areas, the test chosen is the Pintner General Ability Tests: Non-Language Series. These children have on record the scores from the Otis Group Intelligence Scale: Intermediate, given to those in Manassa in 1963 and those given in La Jara in 1961. A comparison will be possible, then between a verbal test score and the non-verbal Pintner.

C H A P T E R I V

PROCEDURES FOR TABULATING TESTS

After the Gates reading tests and the Pintner ability tests were checked, a card was prepared for each student (diagram, p. 44). An attempt was made to gather as much information as possible in a small area with each unit as mobile as possible. Each room was given a number, #1 and #2 for the Manassa rooms, number #3 and #4 for the La Jara rooms. These identifying numbers were placed in the upper left-hand corner on the face of the card. Beside this number was placed an "s" to indicate a Spanish child and and "a" to identify the Anglo child. The children's last names were listed first so they could be sorted alphabetically to correspond to room rolls. Their age in years and months was placed to the right of their names. The circled identification to the right on the same top line made eight identifications possible. These were "s1", "s2", "s3", "s4", "a1", "a2", "a3, and "a4". The "s" and "a", again, identiriid the Spanish and the Anglo. The numbers indicate four classes: "1" - above average IQ and reading scores, "2" - above average IQ and below average reading, "3"- below average IQ and above average reading, and "4" - below average IQ and below average reading. (Average here is considered 99 for IQ and 6.7 for reading.) The number at the far right of the top line indicates a culture score from the back of the card.

The rirst column on the face of the card lists the Pintner scores. The IQ score and percentile rank are placed first for easy identification, but all the raw scores of the six sub-tests and

their median score are listed below. The M.A. score is also listed. On the last line of this first column the Otis score obtained from the school records is noted.

In the second column are the Gates scores. For quick reference the reading grade and reading age are placed at the top. Below these scores are the individual scores and percentile ranks for each section of the test. The two extra numbers below the "V" indicate how many of the 65 vocabulary choices of the first test they attempted. The "A" indicates their degree of accuracy. On the next to the last line of this column are the scores of the second vocabulary test. The last line lists the number of the 65 vocabulary choices attempted the second time, the number tried past 34 and the number of those missed. If there is an "h" with a rating following, this indicates the home condition as listed on the school records.

The last column lists the 40 true and false questions of the culture test with the "yes" converted to "4" and the "no" to "-". At the bottom of this right hand column is information about the occupation of the father and mother as found on the school records.

On the back of the card the 16 culture questions of completion type are listed and evaluated. Answered by words and phrases they allow for a more detailed insight into the child's life-space. The scale runs from 1 to 4 with "1" being nearest the Anglo culture and "4" being nearest the Spanish culture. The questions are weighted with answers falling in the "1" column receiving one point, the marks in "2" receiving two points, etc. The lower score indicates Anglo tendencies while the higher score indicates Spanish tendencies. "17"

refers to the drawing.

In addition to the tabulated cards, other tabulation was made of the culture tests. Two blank tests were marked, one for Anglos and one for Spanish. The answers were tabulated by each question. These were used to weight the value of the questions. Eight blank tests were identified for four categories as listed on the above mentioned cards: high IQ and reading, high IQ and low reading, low IQ and high reading, and low IQ and reading. These were divided by Anglo and Spanish and each question tabulated.

Other cards were prepared, one for each of the 40 "yes" and "no" questions which tabulated all responses to these questions by rooms (1, 2, 3, and 4) and Anglo and Spanish within each room.

TEST TABULATION CARD

Front of Card

#2 Doe, John J. (12 - 11)	a-2 16
	+ + −
PINTNER	GATES − − +
IQ - 107	6.5 - Grade − − +
% - 67	11-8 - Age + + −
	+ − +
1 - 150	S V C + + +
2 - 174	7.8 6.2 5.6 + + −
3 - 152	13-1 11-5 10-8 + + +
4 - 150	65 40 30 − + +
5 - 167	44/65 − + +
6 - 155	A - Med. − + −
Median - 154	− + +
M.A. - 147	(5.8 - 10-10) + + −
O. 110 62	35/65 5.3 h-fair + F. laborer M. housewife

Back of Card

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1							X	X	X		X	X	X					6
2				X	X													4
3						X								X				6
4																		
																		16
	SCIENCE	stop w. parents	3	1	no body	forest ranger	0	0	pill	---	0	0	5	comet	8	potatoes		

C H A P T E R V

PROCEDURE FOR TESTING

Since several elementary schools with students coming from a number of widely scattered communities have been consolidated quite recently and are administered from the new La Jara High School building, this seemed to offer a testing situation that was compact enough for administering the tests without excessive travel and yet made up of children from quite a wide area. The La Jara busses bring sudents from a radius of 12 miles, the Manassa busses from 10 miles.

Mr. Hawkins, the coordinator of testing for the district, set up a schedule with the principals of the La Jara Elementary School and the Manassa Elementary School to meet the purposes of this study at a time that would not interfere with their regularly scheduled spring achievement tests. Arrangements were made to give the tests on a Tuesday, Thursday, and Friday of the last week of March.

One week before the tests were given one of those who was to administer the tests visited each of the four classrooms, was introduced by the teacher, and talked for a few minutes with the children. This procedure was carried out with the idea of establishing a feeling of ease and comfort in the testing situation to follow. The tester was not then a stranger on the day of the testing.

Principals, teachers, and students gave their whole-hearted support to the testing procedure even though it was necessary to interrupt some of their daily program. Relationships with the students seemed most cordial.

On the days of testing strict timing, where required, was

kept on the Gates Survey Test and the Pintner General Ability: Non-Language Series Test. Two forms of each of these tests were given, a different form to each room in the same school. At all times the atmosphere was quiet and the students attentive. Manual instructions and directions were followed carefully for the standardized tests, and all directions were given slowly and clearly. The administrator for the culture test circulated around the room and encouraged the students to ask questions about anything they did not understand.

Upon scoring the vocabulary section of the Gates Test it was found that a large number of the students had marked all of the words. Two of the teachers indicated that during the year the students has been encouraged to guess if they didn't know words in their regular vocabulary drills. In grading this section of the test the student's score of correct answers is reduced by one-fourth of those he answers incorrectly. As the test is designed to measure reading skills up to the tenth grade, and since 34 of the 65 vocabulary choices is the expected raw score for reading grade 6.7, guessing beyond the first page could be very hard on the score. Arrangements were made to come back and give the vocabulary test of the form they had not taken at the first testing. Before giving the second form of the vocabulary test explicit explanation was made that they were to answer only those that they knew or were quite certain they knew: that their scores would be much better if they left unanswered those they did not know.

In order to differentiate between the Anglos and Spanish in each room a four way check was made. First, all Spanish names were marked, then without reference to this list the tester looked over

the group of children and made note of those who appeared to be Spanish. This judgment was reviewed with the teacher and a final tally was made with the cumulative records. (In almost every case where the tester had a question on the "sight" tabulation it was found that the child was only half Spanish. There were not any Spanish or half Spanish in this group with Anglo names.) Those of mixed parentage were all left in the Spanish group since their fathers were Spanish and they carried the Spanish name.

A physical survey was made of the general area in which these children live. The communities of Romeo, Manassa, and La Jara in particular were checked for types and conditions, general upkeep and concentration of housing. The amount and type of business activities were noted, as well as those buildings and houses abandoned.

C H A P T E R V I

SOME SPECIFIC TEST COMPARISONS

Intelligence Tests

The Pintner mental capacity test given was a non-language test. For this reason it should be of interest to compare its scores with the Otis language test which was given in one school two years earlier and in the other school four years earlier.

Seventy-two of the 101 children tested on the Pintner had the Otis score also on their records. There were 43 scores which were higher on the language test than the non-language (23 Anglos). There were 25 scores which were higher on the non-language test than the Otis language test, 21 of which were Spanish. Of these 21 Spanish, 12 showed up in the low-reading group (½ with low IQ) while 9 (8 with high IQ) were in the high reading group. One of these Spanish had low IQ and high reading while 6 had low IQ and low reading. Since 24 of the 28 who scored higher on the non-language test were Spanish, and since more than half of these were in the high IQ bracket, it would indicate that the non-language type test seemed to be quite fair to the bilingual child.

As 14 of the Spanish low readers showed higher scores on the non-language version test, we might assume that their meager language background caused them difficulty on the language test.

Four children, 2 Anglos and 2 Spanish, had very low scores on the non-language test while the Otis showed them grouped around the mean of 111. These had high reading scores. Perhaps the non-language test was unfair as a single score for this group.

IQ and Reading Scores

Testing was begun on 103 children in four 6th grade rooms, two in Manassa and two in La Jara. Two of the 103 were elimintated from the group because they were absent when one or more of the tests were given. This left 101 students as the subjects of this study.

On the Gates Reading Test 53 of the 101 tested fell below the reading grade score of 6.7 while 48 had reading grade scores of 6.7 or above. In the Manassa school 21 scored 6.7 or above (8 of these were Spanish). In the La Jara school 27 scored 6.7 or above (12 of these were Spanish). Scores of 27 at Manassa fell below 6.7 (18 or 3/4 of these were Spanish) while scores of 26 at La Jara fell below 6.7 (19 of 3/4 of these were Spanish), 9 (4 Spanish) of Manassa's high readers showed a low IQ score while the scores of 12 (4 Spanish) fell at 99 or higher. There were 7 (3 Spanish) of this group whose reading scores were 8.7 or above. Three of the 7 (2 Spanish) had low IQ scores while 4 (1 Spanish) had high IQ scores. In La Jara 10 (5 Spanish) of the high scoring raders were in the low IQ group while 17 (7 Spanish) scored 99 or above on the Pintner test. There were 3 (1 Spanish) in this group who showed a reading score of 8.7 or above. All rated high on the Pintner test.

In the low-reading group Manassa had 11 (7 Spanish) with high IQ scores and 16 (12 Spanish) with low IQ scores. Seven (5 Spanish) of these low-reading scores fell at or below 4.7. Three of these 7 rated 99 or above on the Pintner IQ test; 4 had low IQ scores. In La Jara there were 6 (4 Spanish) low readers with high IQ scores and 20 (15 Spanish) with low IQ scores. Five (all Spanish) of these scores

fell at or below 4.7. Of these, 4 (all Spanish) had low IQ scores and 1 (Spanish) had a high IQ score.

A look at the Spanish scores at Manassa and La Jara separately are of interest.

In Manassa about 1/3 of the children's high reading scores were made by the Spanish. One-half of this group had high IQ scores and 1/2 low IQ scores. Three of these had reading scores above 8.7, but 2 of them did poorly on the IQ test. Three-fourths of the low scoring readers were Spanish and 1/3 of this large group had indications of high intelligence.

In la Jara almost 1/2 of the high reading scores were made by Spanish with about 1/3 of these making a low IQ score. One Spanish child had a reading score above 8.7 coupled with a high IQ score. Three-fourths of the low-scoring readers were Spanish with 1/5 of this group indicating high intelligence.

It would seem that quite consistently the larger portion of poor readers are Spanish and among these poor readers about 1/4 show capacity to do much better.

La Jara showed a greater proportion of Spanish with the group of high-scoring readers, but among the poor readers the percentage of Spanish was just as high as in Manassa.

Frequency Distribution

The reading scores of the Anglos and the Spanish Americans were separated in order to compare their achievement. Of the 101 tested 58 were Spanish and 43 were Anglos. A frequency distribution was worked out (charts #1 and #2, pages 52 and 53). The mean reading

grade of the Spanish group was 6.15 while that of the Anglos was 7.2. This places the Spanish about a year behind the Anglos and half a grade below their expected reading level, while the Anglos were half a year beyond their reading expectance. These charts include nine children who will be eliminated as we begin to pinpoint cultural reasons for the group's retardation. Their IQ scores fall below 77 and their reading scores below 5.7.

The IQ of the two groups has also been worked out on a frequency distribution (charts #3 and #4, pages 54 and 55). As this test was a non-language test, it was interesting to note how near the national mean the scores fell. For the Anglos the mean was 99.62 and the Spanish were not far behind with a mean of 92.25.

Chart 1

FREQUENCY DISTRIBUTION OF THE
SPANISH READING SCORE
(Gates Reading Survey Test)

Scores	f	X	fX	X_1	x'	fx'	$f(x')^2$
9.1 - 9.5	2	9.3	18.6	6.0	12	24	288
8.6 - 9.0	3	8.8	26.4	5.5	11	33	363
8.1 - 8.5	2	8.3	14.6	5.0	10	20	200
7.6 - 8.0	5	7.8	39.0	4.5	9	45	405
7.1 - 7.5	6	7.3	43.8	4.0	8	48	381
6.6 - 7.0	3	6.8	20.4	3.5	7	21	147
6.1 - 6.5	9	6.3	56.7	3.0	6	54	324
5.6 - 6.0	7	5.8	40.6	2.5	5	35	175
5.1 - 5.5	7	5.3	37.1	2.0	4	28	112
4.6 - 5.0	6	4.8	28.8	1.5	3	18	54
4.1 - 4.5	3	4.3	12.9	1.0	2	6	12
3.6 - 4.0	3	3.8	11.4	.5	1	3	3
3.1 - 3.5	2	3.3	6.6	0	0	0	0
	58		356.9			335	2464

$$\bar{X} = \frac{356.9}{58}$$

$$\bar{X} = 6.15$$

$$\sum x^2 = \left[2464 - \frac{335}{58}^2\right].25$$

$$\sum x^2 = \left[2464 - 1935\right].25$$

$$\sum x^2 = 132.25$$

$$\sigma = \sqrt{\frac{132.25}{57}}$$

$$\sigma = 1.52$$

Chart 2

FREQUENCY DISTRIBUTION OF THE
ANGLO READING SCORE
(Gates Reading Survey Test)

Scores	f	X	fX	X_1	x'	fx'	$f(x')^2$
10.4 -10.8	2	10.6	21.2	7.5	15	30	450
9.9 -10.3	1	10.1	10.1	7.0	14	14	196
9.4 - 9.8	0	9.6	0	6.5	13	0	0
8.9 - 9.3	2	9.1	18.2	6.0	12	24	288
8.4 - 8.8	1	8.6	8.6	5.5	11	11	121
7.9 - 8.3	5	8.1	40.5	5.0	10	50	500
7.4 - 7.8	9	7.6	68.4	4.5	9	81	729
6.9 - 7.3	6	7.1	42.6	4.0	8	48	384
6.4 - 6.8	6	6.6	39.6	3.5	7	42	294
5.9 - 6.3	4	6.1	24.4	3.0	6	24	144
5.4 - 5.8	3	5.6	16.8	2.5	5	15	75
4.9 - 5.3	2	5.1	10.2	2.0	4	8	32
4.4 - 4.8	1	4.6	4.6	1.5	3	3	9
3.9 - 4.3	0	4.1	0	1.0	2	0	0
3.4 - 3.8	0	3.6	0	.5	1	0	0
2.9 - 3.3	1	3.1	3.1	0	0	0	0
	43		308.3			350	3222

$$\bar{X} = \frac{308.3}{43}$$

$$\bar{X} = 7.2$$

$$\sum x^2 = \left[3222 - \frac{350}{43}^2 \right] .25$$

$$\sigma = \sqrt{\frac{93.25}{42}}$$

$$\sigma = 1.49$$

Chart 3

FREQUENCY DISTRIBUTION OF THE
SPANISH IQ SCORES
(Pintner General Ability Tests: Non-Language Series)

Scores	f	X	fX	X_1	x'	fx'	$f(x')^2$
120 - 124	1	122	122	60	12	12	144
115 - 119	3	117	351	55	11	33	363
110 - 114	3	112	336	50	10	30	300
105 - 109	6	107	642	45	9	54	486
100 - 104	7	102	714	40	8	56	448
95 - 99	6	97	582	35	7	42	294
90 - 94	7	92	644	30	6	42	252
85 - 89	5	87	435	25	5	25	125
80 - 84	8	82	656	20	4	32	128
75 - 79	5	77	485	15	3	15	45
70 - 74	5	72	360	10	2	10	20
65 - 69	0	67	0	5	1	0	0
60 - 664	2	62	124	0	0	0	0
	58					351	2605

$$\bar{X} = 62 + \left(\frac{351}{58}\right)5$$

$$\bar{X} = 92.25$$

$$\Sigma x^2 = \left[2605 - \frac{351^2}{58}\right]25$$

$$\Sigma x^2 = 11975$$

$$\sigma = \sqrt{\frac{11975}{57}}$$

$$\sigma = 14.49$$

Chart 4

FREQUENCY DISTRIBUTION OF THE
ANGLO IQ SCORES
(Pintner General Ability Tests: Non-Language Series)

Scores	f	X	fX	X_1	x'	fx'	$f(x')^2$
136 - 140	1	138	138	75	15	15	225
131 - 135	0	133	0	70	14	0	0
126 - 130	0	128	0	65	13	0	0
121 - 125	0	123	0	60	12	0	0
116 - 120	5	118	590	55	11	55	605
111 - 115	4	113	452	50	10	40	400
106 - 110	8	108	864	45	9	72	648
101 - 105	3	103	309	40	8	24	192
96 - 100	5	98	490	35	7	35	245
91 - 95	9	93	837	30	6	54	324
86 - 90	2	88	176	25	5	10	50
81 - 85	2	83	166	20	4	8	32
76 - 80	0	78	0	15	3	0	0
71 - 75	0	73	0	10	2	0	0
66 - 70	2	68	136	5	1	2	2
61 - 65	2	63	26	0	0	0	0
	43		4284			315	2723

$$\bar{X} = 63 + \left(\frac{315}{43}\right) 5$$

$$\bar{X} = 99.62$$

$$\sum x^2 = \left[2723 - \frac{315}{43}^2\right] 25$$

$$\sum x^2 = 10375$$

$$\sigma = \sqrt{\frac{10375}{42}}$$

$$\sigma = 15.72$$

C H A P T E R V I I

ANALYSIS OF CULTURE QUESTIONNAIRE RESULTS

Planning and conducting an objective culture survey for the Anglo and Spanish-speaking children in this study presents many problems, some of which are: What are the significant culture characteristics that can be identified by an objective test keyed to the thinking of a twelve-year-old child? Should the questions in the main be so designed that they will gave import for both Anglo and Spanish-American children? Will the elicit a true response and have the same meaning for all concerned? Will the minority children feel at ease when answering truthfully or will they sense a conspiracy to compare them unfavorably with their Anglo contemporaries?

Since only one hour was allowed for the questionnaire, most of the questions (the first forty) needed only a "yes" or "no" answer. Sixteen questions requiring only word or phrase answers were contained in the second part. To keep everyone busy until all were finished a blank space enclosed in lines with the caption, "Here is a blank space. Draw anything you want in it." was included on the last page.

The writers are unaware of the existence of any culture surveys conducted in a classroom previous to this study, and recognizes that some questions will be raised that can be answered only through a study in greater depth.

Not all questions carried the same weight for the writers or the children. Many were quite innocuous to the children but each one supplied some bit of information necessary to the study.

In this section each question will be discussed and the reason

for its incousion given. At the end of the section a copy of the test exactly as given is appended.

1. Did you brush your teeth this morning?

It was anticipated that personal cleanliness would not vary drastically between the lower middle class Anglos in the rural communities and their Spanish-speaking counterparts. The question could have included baths per week, hot and cold running water and others of a personal nature, but it was assumed that a simple question would bring out a more indicative response and not arouse a defensive attitude. Of the total responses 67 were"yes" and 36 "no". The Anglo response was 33 "yes" and 9 "no". The Spanish response was 34 "yes" and 27 "no". In all the four classrooms tested, the Anglos showed "yes" three to one or better. The Spanish in the La Jara school answered two to one "yes", but those in the Manassa school tallied five to four "no" and one room showed only two out of fifeeen as having brushed their teeth that morning. It is in this area (Romeo) that four city blocks of sub-substandard dwellings house many Spanish Americans.

2. Do you get money regularly to spend for anything you want?

This question is based on more than economics. It seems that in the urban centers today most of the children in this age group receive from their parents some type of stipend. Not to receive such is almost a social stigma. The answers were "yes" 36 and "no" 67. In the rural communities such a practice, it appears to this observer, also has economic and social implications. In the lower income area

of Manassa-Romeo the Anglo reaction was "no" four to one, but the Spanish reaction was only "no" two to one. Is this an indication of the present-time orientation of the antecedent Spanish-American culture in which immediate desires are most important? In the La Jara distirct the Anglos were evenly divided and the Spanish were slightly lower at "no" five to three.

3. Do either of your parents ever come to school to talk with your teacher?

Anthropological studies of underprivileged groups often indicate a lack of interest by the parents in school activities. This observation would have been more definitely verified had it not been for one teacher in the La Jara school. This woman, who is past middle age and has spend all her adult life in the city of La Jara, is known and respected by all. She has made school business the business of the preponderate majority of the children and parents in her room. It was in her room that the answer was "yes" five to one for both groups. The total score was an almost even 51 to 52. The rest of the rooms averaged out: Anglos "yes" 6 to 5 and Spanish "no" 7 to 3.

4. Do your parents ever help you with your home work?

Accepting the low level of aspiration characteristic of the older minority Southwest culture, the tester had hoped that this question, in combination with number three, would indicate if the parents were seriously interested in the acculturation of their children. The overall answers were "yes" four to one. While in all the Anglos there were only two "no's", the Spanish answered "yes" almost three to one.

5. Do you have a refrigerator at home?

It wasn't expected that only three of all the homes represented would be without a refrigerator. Two of these were Spanish. This could indicate a change from the heavy starch diet of the past to the more varied fare of the urban Anglo culture.

6. Do you like to answer in class?

A "no" answer to this question by an Anglo could be normal for an Anglo slower than the average in learning ability or too bored to be bothered. But for the Spanish American child it is usually interpreted as a reluctance to take a dominant role or lack of interest in the Anglo culture. There were 74 "yes" answers and 29 "no's". The dominant group registered a preference of two to one in favor of "yes" while the minority group, contrary to most Anglo expectations registered a preference of three to one for participation in classroom activities. Is it possible that these sometimes disadvantaged children are beginning to adopt the Anglo idea of success? Is this desire of children exploited sufficiently by teachers?

7. Do you understand what the teacher says to you most of the time?

This was an attempt to uncover or identify language difficulties resulting from hearing only Spanish spoken at home. To all appearances the public school is doing a credible job in the teaching of English. There were only eight Spanish and one Anglo who answered "no".

8. Is there a telephone in your house?

All the Anglos had telephones, but three-fifths of the Spanish

did not. In the Manassa-Romeo district where the living standards are by general agreement lower, the proportion of telephones are higher than in the La Jara community. The per capita number of telephones in the first are higher by two and one-half times than in the latter. Because of its mundane appearance and unostentatious function it doesn't seem to be a Spanish status symbol.

9. Do you like to hear people talk Spanish?

This question found an unexpected reaction. Seventeen out of the forty-two Anglos answered "yes" for reasons unclear to the writer. Could it be that they have learned enough Spanish to enjoy its euphony? Or did their parents or peers deliberately or casually teach them a second language? Three-fourths of the Spanish answered "yes". This left fourteen either ashamed of their heritage or acculturated to such a degree that they had no thoughts concerning it.

10. Do you understand almost all the words you read in your school books?

The response to this one was good. Had all the answers been "yes" the books would have been no challenge. As it was, "yes" tallied 78 and "no" 25. One in seven of the Anglos didn't understand and almost one-third of the Spanish answered "no".

11. Do you like going to school?

School is a desirable experience for seventy percent of the Anglos and eighty percent of the Spanish. With only thirteen of the minority group choosing to dislike school, this could possibly be attributed to childish exuberance and not a desire for greater family

unity as would be indicated in the folk culture. After all the test was given on an early spring day and the weather was pleasant.

12. Does everyone at your house eat the evening meal at the same time?

In the older Southwestern cultures father was the absolute ruler of the household. Meals were served at his pleasure, and if guests were present he and they ate first. It the family contained many children, the father and the oldest boys ate first, then mother, the girls and younger children later. This question could have revealed any vestigial remains of this pattern or any atavistic tendencies that may have reappeared. Only seventeen, seven Anglos and ten Spanish answered "no". These are too few to indicate the existence of this paternal characteristic.

13. Does your father come home from work each day?

With this question the fathers who follow the crops or construction work are identified. There were four broken homes and sixteen whose fathers worked at jobs that kept them away for more than twenty-four hours at a time. Of these sixteen only four were Anglo.

14. When your father or mother brings home candy do they give each one at home the same amount?

This is another attempt to determine if there is a residual heirarchy of parental favor among the minority group. With only eight "no's" the practice must be almost defunct in the communities studied.

15. Do you have a wrist watch of your own?

The answers to this question tallied out on what could

probably be considered as basic economic expectations. There were 58 "yes" and 45 "no" with the Anglos having a higher ratio of 2/3 and the Spanish less than 1/2.

16. Do you play with most of the boys and girls in your room?

With fourteen out of the sixteen "no's" coming from the Spanish group and ten of these from the lower status area of Manassa-Romeo, it could be possible that the economic differences have been reinforced by a group cleavage.

17. Do you have a piggy bank where you can save your money?

Almost 60% of the Spanish were saving their money. The Anglos showed only a slightly higher percentage of 75%. Interesting in light of earlier Spanish emphasis on present needs.

18. Do you go to church almost every Sunday?

Four Anglos and seven Spanish said "no". No significant trend or difference was indicated.

19. Would you like to live in a big city?

A total of 32 "yes" and 71 "no". It appears that to most of these sixth-grade children the nebulous economic advantages of urban life do not outweigh the unsullied equanimity of rural and village life.

20. Do you have pet animals at home?

There were only thirteen homes without pets, but the interesting result was that eleven of these were Spanish American.

21. Do you have a soft carpet on the floor of the largest room in your house?

This was a question of economics. One-half othe Spanish and two-thirds the Anglos answered "yes".

23. Are there any nice books at home to read?

The response was an overwhelming "yes" with only eight "no's". If the question is as valid as it seems then there must at least be a Bible in almost every home.

24. Does your mother or father give you vitamin pills?

Anglos, 2/3 "yes", Spanish Americans answered 3/7 "yes". In spite of the luxury status attached to vitamin pills among the lower classes, this may be another middle-class Anglo characteristic gaining acceptance with Spanish Americans.

25. Does your father or mother read to you out of a book in English?

Three-fourths of the Anglos said "yes", while 1/3 of the Spanish Americans said "yes". In the lower socio-economic minority group only 1/4 answered "yes".

26. Do your parents always talk to each other in English?

Two-thirds of all Spanish Americans said "no". The proportion was slightly higher in the higher income community.

27. When somebody at home gets sick do they go to the doctor?

All but ten said "yes", so the results were inconclusive even though eight Spanish Americans said "no".

All but ten said "yes", so the results were inconclusive even though eight Spanish Americans said "no".

28. Did you ever see anyone with "fright sickness"?

This folk disease afflicts only Spanish Americans. It can be alleviated only through the efforts of a Mexican curer (curandero) or a priest. To the Anglo it appears as a case of high nervous tension. Ten Anglos and eleven Spanish Americans claimed to know about it, but of the five interviewed none could clearly identify the symptoms.

29. Do you want to go to college?

All but five said "yes", and all these five were Spanish. In the reading and class-room discussions the pursuit of education is eulogized as an abstraction, and its mental and financial connotations soft peddled. It is obvious that most of the children didn't understand the implications of the question.

30. Do you think your teacher is as smart as your mother or father?

To the Spanish-speaking child the realization that his father is not omnipotent and omniscient usually comes later than it does to the Anglo child. The results of 85 "yes" and only 18 "no" indicate that the expansion of the child's horizon must have already begun.

31. Do you eat more tortillas than you do potatoes?

It may have been unfair to ask this question in the San Luis Valley, but there are twenty families in the groups questioned that still prefer their traditional food.

32. Does your father work most of the time?

Three Anglos and seven Spanish Americans had fathers employed in seasonal agricultural labor. This proportion seems to be small for what is considered a predominantly farming community.

33. When you do wrong does your father punish you?

This was asked to find out if the father is more dominant in the minority group household than in the Anglo. His dominance is much less evident than would be expected in an unenculturated group.

34. Is there more than one family living in your home?

In the older Spanish American culture, family solidarity extended through three generations, all domiciled often in the same house. This question found only two Anglo households and eight Spanish with two families under the same roof. Most of these were older married siblings who had not become self-sufficient as yet.

35. Do you know the name of your nearest neighbor?

It was expected that some insularity, either enforced or voluntary, would appear in the answers to this question, but only two didn't know the name of their neighbor.

36. Do you have a place at home where you can go by yourself to read?

The crowded quarters characteristic of some Spanish American communities do not seem to be the rule here. Only seventeen out of the 61 homes did not have a place where the child could be along for study.

37. Are there sheets and blankets on the bed where you sleep?

This query was expected to find those families that were clearly underprivileged, but only three answered "no". Their answers to other questions bore out this contention.

38. Is there wallpaper on any of the rooms in your house?

The answers to this question were inconclusive, for the children's questions brought out the point that many of the better houses had dry wall or plaster.

39. Do you have a big stove to keep you warm in the winter?

The children's questions to the tester indicated that they were thinking in terms of automatic or gas heat. Only six suggested that coal or wood was used to heat their house.

40. Do you like to draw?

An ability to creative art is accepted as more evident in many of the less sophisticated cultures than in middle class Anglo children. Even though all but nine of the entire group said they like to draw there was almost no ability demonstrated on the last page of the test.

The second part of the Culture Survey (p. 4 of the sample test) composed of sixteen completion-type questions, was developed to check on the truthfulness of the child's answers to the true or false questions in the first part and probe deeper into the effects of his home and school environment. With the cultural milieu of the minority group as the factor being considered, an analysis of the answers submitted by the 58 children with Spanish surnames is in order:

1. Of all the things the teacher asks you to do in the school room, which do you like to do best?

Mathematics was the activity preferred by more than one-third. The low reading group gave mathematics a preference of more than two to one. The high reading group chose art and spelling as their three to one favorite.

2. If you didn't have to go to school what would you do at home?

Twenty-one listed play as the major activity, and as would be expected, most of these were in the low reading group. Planned work or chores accounted for most of those remaining with only one in six listing reading and study.

In the high reading group, study and chores received equal emphasis, and play was third with only one if five entering it as a desirable activity.

3. How many brothers do you have at home?

4. How many sisters do you have at home?

The average for all was five children per family. In the group with low IQ and high reading score the family size was smaller with an average of less than four. Contrarywise the children with high IQ and low reading scores came from families containing almost eight children per family.

5. When you take school work home who helps you with it?

The results from this query seem to indicate that help with homework has a negligible effect on reading skills.

6. What do you want to be when you grow up?

Teaching leads its nearest rival, nursing, by almost two to one or 19 to 10, while the church got only three. All the other skilled professions together account for only 13. Glamour skills and the mundane trades complete the picture. All but three have forgotten the soil as a livelihood. Only five selected housewife. The sixth grade is a little too early for the biological urge to have an effect.

7. Are there images in your house and how many?

The number of religious symbols in the home howed no relationship to reading skill, but the homes of children with low IQ had twice as many as the average.

8. What do you do when it thunders?

This attempt to find out if there are any vestigial worship of natural forces found only eight who were even mildly concerned.

9. What do you do when your stomach hurts?

Native remedies have been completely eclipsed by high pressure advertising through the mass communication media. Thirty-four out of the fifty-eight take either aspirin, Pepto Bismal or Alka-Seltzer. The rest suffer it out or go to bed.

10. How many times since Christmas have you missed the bus?

The American dependence upon the alarm clock has definitely invaded the hamlets of the San Luis Valley. The number of times the bus came too early was so low as to be inconsequential.

11. How many times a week do you have beans for the evening meal?

Beans cannot compete with the universal potato for frequency at the dinner table, for they appear only about twice a week.

12. How many sleep in the same bed with you?

In only three homes do more than two sleep in the same bed. More than half have a bed of their own.

13. How many clocks are there in your house?

Every house had at least one, and the average was just over two.

14. Name the musical instruments at home.

Pianos appear to be a status symbol with a total of eleven, but the twenty guitars make it the most popular.

15. How many pictures are hanging on the walls at home?

A total of 456 pictures indicate that there are no barren walls in the homes of the Spanish Americans of the San Luis Valley.

16. What is your favorite food?

From the obvious statement "everything" of a little boy who had no breadfast that morning to the exotic fish and chips of northern Europe their likes covered most of the tasty foods that grace the modern American table with only fourteen selecting foods common to the diet of the earlier Spanish Americans.

The pictures to be drawn at the bottom of the page were intended to keep all busy for the allotted time. They did not seem to indicate any native artistic ability or incipient anti-social tendencies.

A Culture Survey

Name_____ Age_____ School_____
Room_____

Answering these questions will not affect your school grades in any way.

Your teacher will not grade this paper.

This paper will be read by people who are trying to make your school a better school.

Read each question and answer it as soon as you think you know the answer.

Answer the next 40 questions by making a circle aroung the answer that is right at your house.

1. Did you brush your teeth this morning? Yes No

2. Do you get money regularly to spend for anything you want? Yes No

3. Do either of your parents ever come to school to talk with your teacher? Yes No

4. Do your parents ever help you with your homework? Yes No

5. Do you have a refrigerator at home? Yes No

6. Do you like to answer in class? Yes No

7. Do you understand what the teacher says to you most of the time? Yes No

8. Is there a telephone at hour house? Yes No

9. Do you like to hear people talk Spanish? Yes No

10. Do you understand almost all the words you read in your school books? Yes No

11. Do you like going to school? Yes No

12. Does everyone at your house eat the evening meal at the same time? Yes No

13. Does your father come home from work each day? Yes No

14.	When your father or mother brings home candy do they give each one at home the same amount?	Yes	No
15.	Do you have a wrist watch of your own?	Yes	No
16.	Do you play with most of the boys and girls in your room?	Yes	No
17.	Do you have a piggy bank where you can save your money?	Yes	No
18.	Do you go to church almost every Sunday?	Yes	No
19.	Would you like to live in a big city?	Yes	No
20.	Do you have pet animals at home?	Yes	No
21.	Do you have a soft carpet on the floor of the largest room in your home?	Yes	No
22.	Do you have a TV set at home?	Yes	No
23.	Are there any nice books to read at home?	Yes	No
24.	Does your mother or father give you vitamin pills?	Yes	No
25.	Does your father or mother read to you out of a book in English?	Yes	No
26.	Do your parents always talk to each other in English?	Yes	No
27.	When somebody at home gets sick do they go to the doctor?	Yes	No
28.	Did you ever see anyone with fright sickness?	Yes	No
29.	Do you want to go to college?	Yes	No
30.	Do you think your teacher is as smart as your mother or father?	Yes	No
31.	Do you eat more tortillas than you do potatoes?	Yes	No
32.	Does your father work most of the time?	Yes	No
33.	When you do wrong, does your father always punish you?	Yes	No
34.	Is there more than one family living in your home?	Yes	No

35. Do you know the name of your nearest neighbor? Yes No

36. Do you have a place at home where you can go by yourself to read? Yes No

37. Are there sheets and blankets on the bed where you sleep? Yes No

38. Is there wall paper on any of the rooms at home? Yes No

39. Do you have a big stove to keep you warm in the winter? Yes No

40. Do you like to draw pictures? Yes No

STOP HERE

Please do not turn the page until you are told to do so.

Write the answers to these questions on the nearest blank line.

1. Of all the things the teacher asks you to do in the school room, which do you like to do best? _____

2. If you didn't have to go to school what would you do at home?

_____

3. How many brothers do you have at home?_____

4. How many sisters do you have at home? _____

5. When you take school work home, who helps you with it?_____

6. What do you want to be when you grow up? _____

7. Are there images in your house? _____ How Many? _____

8. What do you do when it thunders? _____

9. What do you do when your stomach hurts? _____

10. Wow many times since Christmas have you missed the bus? _____

11. How many times a week do you have beans for the evening meal? ____

12. How many sleep in the same bed with you? _____

13. How many clocks are there in your house? _____

14. Name the musical instruments at home._____

15. How many pictures are hanging on the wall at home? _____

16. What is your favorite food? _____

Here is a blank space.
Draw anything you want in it.

C H A P T E R V I I I

CONCLUSIONS

Rarely do two people gather identical conclusions from the same test results. This study was conducted under conditions considered almost ideal. All the children in the sixth grade were studied. The population came from both small town and rural areas. While the conclusions drawn are not expected to be extrapolated to other parts of the San Luis Valley, the writers believe that results obtained are not peculiar to the La Jara, Romeo and Manassa communities and their environs.

For the purposes of research the hypothesis assumed a measurable difference between the reading skills of the Anglo and the Spanish American children. Statistical data indicate that the minority group children have an almost unbroken record of school attendance. Their mean age was only one month older than the Anglo group. Their difference in Intelligence Quotient was 7.4 points with the Anglos testing .4 of a point below the national norm. On the reading test the difference was more noticeable. The Anglo's registered one-half year ahead and the Spanish Americans one-half year behind the national average. In other parts of the Southwest the differences in chronological and reading age are more evident.

It was in the Culture Test that the reasons for the variation in reading skill were determined. The lack of parental interest in school activities was partially offset by the proportion of the members of the household who helped with the homework. It was the mother who assisted in the majority of the homes, but father drives the family

car. It is probably for this reason that visits to school and P.T.A. are not very frequent.

After more than five years in a public school these children of a minority culture seem to have learned some of the attributes of a successful pupil. Their willingness to participate in class and their desire to attend school is, by their own admission, higher than their Anglo peers.

The Culture Survey also indicated that the physical home environment was only slightly inferior to the homes of the Anglos in the same community. TV's, refrigerators, musical instruments, pictures and clocks were part of practically every household.

In the area of folk-lore they seem almost to have forgotten the superstitions and folk ways of their grandparents. They are, if the results of this study are interpreted correctly by the writers, making rapid progress toward a useful place in the middle class American Society.

Recommendations

The writers feel that a detailed study of the social, economic, and cultural environment of this area would implement an understanding of the reasons for the apparent cultural advancement in this vicinity beyond that of other areas in the Southwest.

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