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ABSTRACT

This report summarizes some of the literature focusing on specific aspects of the cultures of American Indians and the concommitant testing and assessment problems. The issues of non-competitiveness, language barriers, and a high incidence of middle ear disease among American Indian children are examined as they affect the assessment process. The validity of cognitive measures, personality tests, neuropsychological evaluations, and interest inventories in testing American Indian children is discussed. Research is reviewed which examines some of the cultural differences that affect test performance and the assessment process, including test anxiety, locus of control, and self-esteem. Six problems frequently cited regarding the use of tests with minorities are listed: (1) inappropriate content; (2) inappropriate standardization samples; (3) examiner and language bias; (4) inequitable social consequences; (5) measurement of different constructs; and (6) differential predictive validity. Recent advances in psychometrics and test construction which have contributed to more equitable assessment of native American children are discussed, including the development of the Kaufman Assessment Battery for Children and the Kaufman Test of Educational Achievement, revisions and/or renorming of the Wide Range Achievement Test-Revised and the Stanford-Binet, Form L-M, and the use of various scales as an alternative to tests. Finally, a list of 18 strengths and positive characteristics of divergent groups and culturally different children is provided. A 32-item reference list is appended. (NB)

Assessments and the Native American

by

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Running head: ASSESSMENT

Abstract

The psychological assessment of minorities has been a major concern of school psychologists over the past few decades. This issue and recent developments in the field of testing are examined, and implications for school psychologists and researchers are explored.

Assessment and the Native American

If one is to work effectively with people of different cultures, an understanding of the other culture is needed. American Indians, or Native Americans, possess a culture that can be much different from, or very similar to, that of the majority culture in the United States. Unfortunately, like any other minority group, American Indians are often stereotyped rather than understood and appreciated.

American Indians, like any other group of people, do not fit a single given stereotype. One source (Locke, Pfeiffer, Ridley, Simon, & Whiteman. 1977) reports that there are at least 300 tribes and over 250 different languages within the American Indian cultures. This presents a tremendous difficulty in describing the "typical" Indian culture. Some states have this problem more than others. In New Mexico alone, the American Indian population, from the 1970 census data, is about 73,000. This is the fourth leading state in terms of American Indian population. As recently as 1978, reports give estimates of about "275,000 Native Americans in the U. S. (including Aleuts and Eskimos in Alaska) between the ages of 6 and 17. About 90% of them were enrolled in school" (Havighurst. 1981, p. 329).

The literature regarding the assessment problems with Native Americans is showing that only recently have educators turned to considering the role of the culture, and other factors, in the educational process. Much of the literature is inconsistent in terms of the findings of the research. The research also covers a wide range of areas with very little consensus on any given

topic. This paper will summarize some of the literature focusing on specific aspects of the cultures of the Native Americans and the concommitant testing and assessment problems.

The general view of cultural differences. regardless of the ethnic or social group, is that the cultural differences represent a deficit.

> This deficit hypothesis ... rests on the assumption that a community under conditions of poverty (for it is the poor who are the focus of attention, and a disproportionate number of the poor are members of minority ethnic groups) is a disorganized community, and this disorganization expresses itself in various forms of deficit. (Cole & Bruner, 1971, p. 867)

It seems that society assumes this hypothesis to be true and looks for any evidence that differences are bad. Researchers are finally starting to examine these differences to determine the value of the difference, and its impact on the individual. The researchers are investigating a variety of the differences between cultures, including motivational level, self esteem, cognitive styles, language and physical factors.

One of the stereotypes of American Indians is that they are non-competitive. Research generally supports the idea that American Indian children may appear to be non-competitive but for different reasons than what society normally accepts. These children do not like to be singled out for recognition. Children who distinguish themselves. either favorably or unfavorably, are shamed. Bayne and Bayne reported this non-competitive behav-

ior as "one of the most obvious differences between Navajo and white children" (1969, p. 3). This non-competitiveness can present major problems for someone who is testing a child. If the social norm is to avoid attention, especially at the expense of others, what does it do to the Native American child who is taken from the classroom for special testing because of problems or special talents? The testing situation forces a recognition of the child that goes against the social norms. What does this imply about the testing results which may be obtained? No research has been done on the impact of the situation itself and the resultant test scores.

Language barriers present a problem in the assessment of the American Indian children. The Navajo nation is the largest Indian population in the United States (Havighurst. 1981). For this group alone, "about half of the reservation Navajo children entering school for the first time either speak Navajo as their only language or have a limited command of school English" (Foerster & Little Soldier, 1980, p. 46). This is seen as a problem with any minority group, and socio-economic status is a major determinant.

> The language of the poor. whether we are talking about whites, blacks, Chinese, or others, if it is English at all, is a nonstandard form of English which is viable for communication within one's group but which limits social, educational and economic opportunities for the individual in the larger society. (Foerster & Little Soldier, 1980, p. 46)

Burgess (1978) suggests that teachers and school personnel need to be aware of some of the implications of language problems in working with Native American children. American Indian children will often think in their tribal language. English words may mean something very different when translated to the Indian child. Such children "may use shorter sentences and omit adjectives as well as have trouble using the correct English verb" (1980, p. 52). Educators working with American Indian children will probably face these difficulties since "more than one-half of the Native American children between the ages of 6 and 18 use their tribal language" (1980, p. 52).

Language differences manifest themselves in almost any aspect of the assessment process. If children think in tribal languages and translate from English to the tribal language and back, how can the examiner be confident in the results from the testing? Many tests are highly verbal in content. For non-verbal testing, instructions must still be given to the child. Does the child understand the instructions? If the child receives a low score on verbal parts of the test, to what extent are these actual deficits in verbal ability and to what extent are these cultural differences in language and thinking styles? The examiner needs a methodology to determine the answer. Smith (1980) supports this as a problem in the proper diagnosis of Indian students with learning problems. State regulations for the help of children with special problems indicate that diagnosticians and examiners must be able to distinguish the two causes of the learning problem.

McShane and Mitchell (1979) studied the incidence of middle ear disease in American Indian children. The incidence of this disease for poor children is about 20% or 25%, up from the 5% in the "general childhood population" (1979, p. 7). However, various studies suggest that within certain Indian populations the incidence may range from 20% to as high as 76%. These data have tremendous educational and testing ramifications. One researcher

> observed substantial delay in speech and language, disturbances in auditory-visual integration, reading disorders, poor spelling skills and. especially deficits in specific verbal tasks with strong auditory sequential memory components (which is a characteristic pattern exhibited by learning disabled children with specific auditory processing deficit) (McShane & Mitchell, 1979, p. 8)

as a long-term effect of "middle ear disease during the critical periods of language and auditory processing development" (1979, p. 8). This suggests the strong possibility of mis-labeling a child as learning disabled, when in fact, the deficit is a direct result of middle ear disease. The American Indian child is much more likely to have this kind of disease than other children. Educators and psychologists need to be aware of this problem as the side effects of this childhood disease can last a lifetime and affect self esteem and later academic achievement.

Some of the research centered on the use of specific kinds of tests with American Indian children. The basic question has been whether tests of various types are in fact appropriate for

use with this population. Cognitive tests are accepted as "accurate predictors of academic success within the educational sphere of that dominant culture" (Cress, 1974, p. 16). However, the tests do not reflect the actual cognitive capacity of the individual. Cress found, though, that personality tests have not been demonstrated to be sufficiently valid with American Indian populations.

Neuropsychological evaluations, specifically with the Halstead-Reitan battery, have been found to be much more useful in the assessment process for "learning impaired American Indian" children (Golden, Roraback, & Pray, 1977, p. 20). The researchers concluded that culture is not a factor in this assessment device and the battery may be useful in evaluating American Indian children.

Literature on the use of interest inventories is not as consistent. Epperson and Hammond (1981) used the Kuder General Interest Survey, Form E, with junior high school students, and found the results unsatisfactory. The first concern was the unusually high proportion of V scores obtained in the sample of Zuni students. Beyond that, the researchers also found statistically significant differences on some of the Kuder-E scales for the normative sample and the Zuni sample.

Conflicting results were also found by Scott and Anadon (1980) using the American College Testing Program Interest Inventory (ACT II). The sample was obtained by using information from the ACT Student Profile Section to identify American Indian and Caucasian students. Although the groups showed some

differences in the profiles, Scott and Anadon concluded that enough similarity existed to interpret the profiles for the two groups in very similar fashions.

Social class is also seen as a factor in the use of tests. Social class affected the level of performance of "verbal ability. reasoning, numerical facility, and space conceptualization" for six and seven-year-old children (Oakland, 1973, p. 300). When ethnic group was considered. differences occurred in the level of the mental ability "as well as in the patterns among these abilities" (1973, p. 300).

These problems present additional questions for the test examiner. How does the examiner know whether the type of test, achievement, aptitude, intelligence, interest, or personality, is appropriate for the cultural group? Assuming the general category of tests may be used, what about the specific test? Is the examiner likely to see special patterns arising in the results because of the culture of the individual? One of the problems in using the tests is the assumption made that the individuals "have had exposure to comparable, but not identical, acculturation" (Newland. 1973, p. 318). The extent to which this is not true affects the use of the tests. Another problem is simply the attitude of individuals toward the use of standardized tests. "To many, the use of tests is perceived as an attempt to maintain racially biased social order and institutionalized practices" (Oakland, 1973, p. 295).

Researchers have used other assessment devices to examine some of the cultural differences which affect test performance

and the assessment process. Sawyer (1981) compared American Indian students with white students and found that American Indian student suffered less than the average white student from test anxiety. At first glance. this may appear to be a positive finding in working with test results. However, psychologists generally accept the relationship between motivation and performance, with an optimal level of anxiety helping test performance. The examiner's question to this cultural difference now becomes, "To what extent might the scores be lowered because of the lowered anxiety level?" Cultural standards may suggest an optimal level of anxiety for best performance. What happens to those cultures that have lower levels of test anxiety?

Martin (1978) also examined some of the cultural differences between American Indian and white children. His concern was the relationship between locus of control and self-esteem. His study of fourth, eighth. and twelfth grade students found that whites had higher self esteem scores at the eighth and twelfth grades, but no differences were found at the fourth grade level. At each level, the American Indian students had higher external locus of control scores. but both groups showed scores moving toward internality with age. In general, those students with higher self esteem tended to have higher internal locus of control scores. Martin also categorized the stereotype of better personal adjustment being associated with greater internal locus of control.

Reynolds (1982) has synthesized the writings of Clarizio, 1978; Reschly, 1980; Vandiver & Vandiver, 1979; and Wright &

Isenstein, 1977, and has indicated the following problems frequently cited regarding the use of tests with minorities:

1. "Inappropriate content:" Black or other minority children have not been exposed to the material involved in the test questions or other stimulus materials. The tests are geared primarily toward middle class homes and values.

2. "Inappropriate Standardization Samples:" Ethnic minorities are under-represented in the collection of normative reference group data. Williams (Wright & Isenstein, 1977) criticized the WISC-R (Wechsler, 1974) standardization sample for including blacks only in proportion to the U.S. total population. Out of 2200 children in the WISC-R standardization sample, 330 were minority. Williams contends that such small actual representation has no impact on the test.

In earlier years, it was not unusual for standardization samples to be all white (e.g. the 1949 WISC).

3. "Examiner and Language Bias:" Since most psychologists are white and primarily speak only standard English, they intimidate black and other ethnic minorities. They are also unable to accurately communicate with minority children. Lower test scores for minorities then are said to reflect only this intimidation and difficulty in the communication process, not lowered ability levels.

4. "Inequitable Social Consequences:" As a result of bias in educational and psychological tests, minority group members who are already at a disadvantage in the educational and vocational markets because of past discrimination, are dispropor-

tionately relegated to dead end educational tracks and thought unable to learn. Labeling effects also fall under this category.

5. "Measurement of Different Constructs:" Related to 1. above, this position asserts that the tests are measuring significantly different attributes when used with children other than the white middle class culture. Mercer (1979) for example, contended that when I.Q. tests are used with minorities. they are measuring only the degree of Anglocentrism (adherence to white middle class values) of the home.

6. "Differential Predictive Validity:" While tests may accurately predict a variety of outcomes for white middle class children, they fail to predict at an acceptable level any relevant criteria for minority group members. Contrary to this objection is a variety of competing positions regarding the selection of an appropriate common criteria against which to validate tests across cultural groupings.

Thus, as can be seen, assessment of Native American children appears to be fraught with peril. However, recent advances in psychometrics and test construction have contributed to more equitable assessment.

Recent Advances

One recent advance has been the development of the Kaufman Assessment Battery for Children (Kaufman & Kaufman. 1983). This test, instead of focusing upon the traditional construct of intelligence, attempts to measure the student's processing abilities. Drawing upon recent advances in neuropsychological

theory, the Kaufman Assessment Battery for Children (K-ABC) attempts to ascertain a child's processing strength. rather than a global I.Q. score which does not specify strengths or weaknesses. The K-ABC provides a sequential and a simultaneous processing score, and a global composite score.

Sequential learners tend to learn in a step by step fashion while simultaneous processors tend to assimilate material in a holistic fashion. Thus. the emphasis in the K-ABC is not on what the student has learned, but the manner in which he/she processes information and the student's processing abilities. rather than his/her achievement. Information gleaned from K-ABC scores may help teachers provide more adequate instruction and assist in program planning.

There is an achievement component of the K-ABC, and efforts have been made to produce a "culture fair" measure. In addition, the recent K-TEA (Kaufman Test of Educational Achievement) Verbal directions are few and social bias questions are minimized. The Wide Range Achievement Test (Jastak. 1978) has recently been revised and renormed. The Wide Range Achievement Test-Revised (1984) has recently been made available for public purchase and the following changes have been incorporated:

"1. Separate test forms for Level 1 and Level 2 with larger print and more space on each form.

2. National stratified sampling by age.

3. Rasch item analysis and scaling.

4. Standard errors of measurement at multiple scale and age levels.

5. Revised standard scores based on new age norms.

6. New non-decimal grade equivalent scores which are on an ordinal scale rather than an interval scale.

7. Pearson separation reliability coefficients at all ages.

8. Item separation reliability coefficients at all ages.

9. Test retest reliability coefficients at 4 age levels.

10. White/non-white item difficulty comparisons.

11. Minor item changes to arithmetic Levels 1 and 2.

12. Extension of Level 2 norms to include individuals from 65 years 0 months to 74 years 11 moths.

13. Bridge of Level 1 and 2 for 2 age groups above and below cut-off age (from preface).

Perhaps most importantly, "the WRAT-R was intentionally designed to eliminate, as totally as possible, the effects of comprehension" (Jastak & Wilkinson, 1984, p. 1). In terms of stratification, five factors were controlled: age, sex, race, geographical region. and metropolitan, non-metropolitan residence (Jastak & Wilkinson, 1984, p. 22).

The Stanford Binet, Form L-M, has just been revised under the direction of Jerome Sattler, Elizabeth Hagen and Robert Thorndike. This revision provides more information than the 1972 revision of the Stanford Binet. Scores on the following domains are provided: 1) verbal reasoning; 2) quantitative reasoning; 3) abstract/visual reasoning; 4) short term memory; and 5) a composite score.

It is hoped that the fourth edition of the Stanford Binet may rectify past criticisms of this instrument. In addition, there are a number of other tests which are also reportedly without racial or socio-economic bias. Torrance (1972, p. 4) has indicated that "The Alpha Biographical Inventory developed by Calvin W. Taylor, Robert L. Ellison and their associates (1968) yields two scores (academic and creative) neither of which has any racial bias." The Torrance Tests of Creative Thinking is an open-ended measure of creative ability, which is often overlooked as an ancillary measure in the battery of administered tests. Torrance (1977) has noted that "in 86% of the comparisons reported. the findings were either 'no differences' or differences in favor of the culturally different group." (p. 491).

An alternative to tests has been the use of various scales. Renzulli (1971) has developed the Scale for Rating Behavioral Characteristics of Superior Students. Recently, Elliot and Argulewicz (1983) have examined this instrument's use in identifying culturally different gifted children. The S.R.B.C.S.S. has scales on Learning, Motivation, Creativity, and Leadership Characteristics. Elliot and Argulewicz (1983, p. 185) indicate that their findings "provide strong support for the notion that behaviors indicative of intellectual giftedness are identifiable and characteristic of children from different ethnic backgrounds." However. no research has. as yet. been conducted with minority group children. Torrance (1982, p. 26) has also developed a list of strengths and positive characteristics of diver-

gent groups and culturally different children. These strengths and characteristics. of course. could be behaviorally observed by trained observers and could possibly be quantifi-able. The characteristics are:

1. The ability to express feelings and emotions.

2. The ability to improvise with common place materials and objects.

3. Articulateness in role playing, socio-drama and story telling.

4. Enjoyment of and ability in visual arts such as drawing, painting, and sculpture.

5. Enjoyment of and ability in creative movement, dance, dramatics, etc.

6. Enjoyment of and ability in music and rhythm.

7. Use of expressive speech.

8. Fluency and flexibility in figural media.

9. Enjoyment of and skills in group or team activities.

10. Responsiveness to the concrete.

11. Responsiveness to the kinesthetic.

12. Expressiveness of gestures. body language, etc. and ability to interpret body language.

13. Humor.

14. Richness of imagery in informal language.

15. Originality of ideas in problem solving.

16. Problem centeredness and persistence in problem solving.

17. Emotional responsiveness.

18. Quickness of warm up.

Zeitlin (1982) has recently examined the issue of "coping behaviors." Forty-eight "coping behaviors," taken from various developmental theorists, are examined in the context of two categories, i.e., coping with the environment and coping with self. In each of the categories. three dimensions are specified--Productive, Active and Flexible. Again, research with this scale with minority group children is lacking.

In summary, the problems facing an individual who tests Native American and other minority group students are many and complex. Research is sparse and inconsistent. Research does not focus on any given area of cultural differences. It covers a variety of areas, but it seldom deals specifically with testing applications.

This paper has attempted to review some of the recent advances in testing, and test instruments and re-examine a number of older. less well known tests. which may provide additional information and support for tentative hypotheses and for a more valid. reliable assessment.

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