



1984

A Comparative Investigation of Two Adaptive Behavior Scales (CABS-SV and ABS-SE Part One) Across Three Educational Program Classifications (Regular, Learning Disabled, and Mildly Retarded) Using a Sample of Hispanic Children

Rafael Dannessy Beltrán-Dussán
Loyola University Chicago

Follow this and additional works at: https://ecommons.luc.edu/luc_diss



Recommended Citation

Beltrán-Dussán, Rafael Dannessy, "A Comparative Investigation of Two Adaptive Behavior Scales (CABS-SV and ABS-SE Part One) Across Three Educational Program Classifications (Regular, Learning Disabled, and Mildly Retarded) Using a Sample of Hispanic Children" (1984). *Dissertations*. 2259.
https://ecommons.luc.edu/luc_diss/2259

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Dissertations by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.



This work is licensed under a [Creative Commons Attribution-NonCommercial-No Derivative Works 3.0 License](https://creativecommons.org/licenses/by-nc-nd/3.0/).
Copyright © 1984 Rafael Dannessy Beltrán-Dussán

@Copyright by Rafael-Dannessy Beltrán-Dussán, May, 1984
All Rights Reserved

A COMPARATIVE INVESTIGATION
OF
TWO ADAPTIVE BEHAVIOR SCALES (CABS-SV and ABS-SE Part One)
ACROSS THREE EDUCATIONAL PROGRAM CLASSIFICATIONS
(REGULAR, LEARNING DISABLED, and MILDLY RETARDED)
USING A SAMPLE OF HISPANIC CHILDREN

by

Rafael-Dannessy Beltrán-Dussán

A Dissertation Submitted to the Faculty of the School of
Education of Loyola University of Chicago in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Education

May

1984

Rafael-Dannessy Beltrán-Dussán

Loyola University of Chicago

A COMPARATIVE INVESTIGATION

OF

TWO ADAPTIVE BEHAVIOR SCALES (CABS-SV and ABS-SE Part One)

ACROSS THREE EDUCATIONAL PROGRAM CLASSIFICATIONS

(REGULAR, LEARNING DISABLED, and MILDLY RETARDED)

USING A SAMPLE OF HISPANIC CHILDREN

The purpose of this study was to investigate the adaptive behavior of a Hispanic sample of children comparing the Children's Adaptive Behavior Scale translated into Spanish by the investigator (CABS-SV), and the Adaptive Behavior Scale-School Edition (ABS-SE) Part One, across educational groups. The use of adaptive behavior data is a legal mandate when special education placement decisions are involved.

Subjects in the investigation were 90 Spanish speaking children, boys and girls, ages 8 to 10, selected from classes for regular (n=30), learning disabled (n=30), and mildly retarded (n=30) pupils. The investigator formulated hypotheses to test whether differences existed across educational groups on the CABS-SV and on the ABS-SE Part One, and whether significant relationships existed between the two scales in each of the three groups. The results supported the predictions that significant differences would be obtained among groups and that some significant correlations between the two scales would be found. However, the learning disabled group did not perform as expected.

The reliability of the CABS-SV was .94 similar to the reliability index reported by the CABS authors. The factor analytic findings of the CABS-SV and the ABS-SE Part One, supported only one factor (possibly a verbal factor). The comparison between the mildly retarded group on the CABS-SV and the original CABS indicated no significant differences between the ages of 8 and 9, and some significant differences

at age 10. The small number of mildly retarded Hispanic students rendered the results tentative at best. However, their adaptive behavior characteristics were in general similar to the CABS sample.

The researcher concluded that the adaptive behavior construct is not yet clearly defined or measured and that the CABS showed a marked overlap between verbal intelligence and social competence. The investigator discussed other strengths and weaknesses of the CABS and made suggestions to improve the present measures of adaptive behavior.

ACKNOWLEDGMENTS

I would first like to express my appreciation and admiration to Ronald R. Morgan, Ph.D., whose consistent guidance and encouragement over the past few years as a teacher and especially as director of the dissertation committee made this study possible. I would also like to thank Joy J. Rogers, Ph.D., and Todd J. Hoover, Ph.D., for their constant help, valuable suggestions, and participation on the dissertation committee. Special appreciation is also extended to Jack Kavanagh, Ph.D., and Joseph Fiddler, Ph.D., for their assistance in the data analysis.

I would like to thank the parents who gave permission for their children to participate in this study; to the teachers who provided the required information; and particularly to the children who directly participated in this investigation. I also extend thanks to the school administrators for their cooperation.

Finally, I extend particular thanks to my colleagues and to my special friends who in many ways gave me support, encouragement, and assistance to complete this study.

DEDICATION

To my parents Rafael Beltrán Acosta and Trinny Dussán Camacho who reared me with love and understanding; to my brother Eduardo H. Beltrán Dussán, M.D., for his example and encouragement; to my teachers for their guidance in the scientific field; to my special friends for their friendship and cooperation; to all who participated in this study, specially the children.

VITA

The investigator, Rafael-Dannessy Beltrán-Dussán, is the son of Rafael Beltrán and Trinny Dussán. He was born May 27, 1938, in Colombia South America.

He received the Baccalaureate degree in Classical Studies and the Licentiate in Philosophy from the Claretian Faculty of Philosophy, Zipaquirá, December, 1958. He studied Divinity for five years at the Claretian Faculty of Theology, Manizales, and graduated in December, 1963.

From February, 1964 to December, 1965, he taught classical languages, religion, psychology and anatomy at Claretian High School, Bogotá. From February, 1966 to December, 1967, he was Assistant Principal at Claretian High School, Bogotá.

From February, 1968 to June, 1972, he pursued graduate studies in Psychology at the Javeriana University of Bogotá. In 1969, he graduated from the "Escuela Nacional de Sofrología", Bogotá, with a major in Psychohypnosis. In June, 1972, after the completion of the Thesis entitled: "Standardization of the Rosenzweig Frustration Test in the Adolescent population of Bogotá in the fifth and sixth years of the Classical Baccalaureate", Mr. Beltrán was granted the degree of Professional Psychologist (M.A.) by the Javeriana University of Bogotá.

From February, 1970 to June, 1972, he was Director of a Claretian Community. From 1970 to 1973, he participated in studies and therapeu-

tic training at the Psychoanalytic Institute, in Bogotá.

From June, 1972 to December, 1973, he was Principal at Claretian High School, in Bogotá. During these years he taught at the Javeriana University and other schools, directed and assisted with the development of several psychoeducational programs.

In January, 1974, he came to the United States, studied English at Roosevelt University in Chicago, and started graduate studies in Educational Psychology at Loyola University of Chicago. While at Loyola (1974-1979) he assisted some Hispanic communities in metropolitan Chicago in programs of counseling and cultural services. In January, 1978, he was granted the degree of Master of Education in Educational Psychology by Loyola University of Chicago.

From October, 1977 to the present, he has worked as a bilingual-bicultural school psychologist, at the Bureau of Child Study, Chicago Board of Education.

In August, 1982, he became a U.S. citizen. After which, he has taught psychology and related subjects at Saint Augustine and North Park Colleges in Chicago.

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
DEDICATION	iii
VITA	iv
TABLE OF CONTENTS	vi
LIST OF TABLES	x
LIST OF FIGURES	xii
 Chapter	
I. INTRODUCTION	1
II. REVIEW OF THE LITERATURE	4
Adaptive Behavior	4
Assessment of Adaptive Behavior	10
Tests of Adaptive Behavior	12
The AAMD Adaptive Behavior Scale- Public School Version (ABS-PSV).	12
The AAMD Adaptive Behavior Scale	

School-Edition (ABS-SE)	14
The Adaptive Behavior Inventory for Children (ABIC)	16
The Vineland Social Maturity Scale (VSMS)	17
The Vineland Adaptive Behavior Scales (VABS)	18
The Children's Adaptive Behavior Scale (CABS)	19
Other Measures of Adaptive Behavior	21
Research on Adaptive Behavior	21
Recapitulation	27
III. METHOD	31
Hypotheses	31
Subjects	32
Instrumentation	33
Procedure	37
Design and Statistical Analysis	39
IV. RESULTS	41
Results Related to Null Hypothesis One	41
Results Related to Null Hypothesis Two	46
Results Related to Null Hypothesis Three	46

Results Related to Null Hypothesis Four	51
Results Related to Null Hypothesis Five	55
Ancillary Results	57
Reliability of the CABS-SV	57
A PII Factor Analysis of the CABS-SV	
Domains	57
A PII Factor Analysis of the ABS-SE	
Part One	59
Comparison between CABS-SV and CABS	
(Am. Norma0	59
V. DISCUSSION	64
Performance Differences Across the Edu-	
cational Groups on the CABS-SV and	
ABS-SE Part One	65
A discussion of the Relationship between	
the CABS-SV and the ABS-SE Part One	
Scores in each of the Groups	68
Discussion of Ancillary Findings	72
Reliability of the CABS-SV	72
Factor Analysis of the CABS-SV	72
A Discussion of the Factor Analysis of	
the ABS-SE Part One Domain Scores	73
A Comparison between the CABS-SV Results	
and the CABS Norms	75

A Discussion of the Relationship between Intelligence and Adaptive Behavior . . .	76
Discussion of the History Related to the Development of the CABS	79
Concluding Commentary and Suggestions . .	83
SUMMARY	87
REFERENCES	90
APPENDIX A	102
APPENDIX B	107
APPENDIX C	114
APPENDIX D	119

LIST OF TABLES

Table	Page
1. Measures of Adaptive Behavior	22
2. Distribution of the Sample	34
3. Means and Standard Deviations of the Sample on the CABS-SV and ABS-SE Part One	42
4. ANOVA Summary Table for CABS-SV Scores (Total and Domain Scores) Across Groups. (Regular, Learning Disabled, and Mildly Retarded)	43
5. Summary Table of the DUNCAN's, TUKEY's, and SCHEFFE's Test ANALYSIS OF VARIANCE for the CABS-SV Total and Domain Scores Across Groups .	45
6. ANOVA Summary Table for the ABS-SE Part One Scores Across Regular, Learning Disabled, and Mildly Retarded Groups	47
7. Summary Table of the DUNCAN's, TUKEY's, and SCHEFFE's TEST ANALYSIS OF VARIANCE for	

ABS-SE Part One Total and Domain Scores Across Groups	49
8. Correlation Coefficients Among the CABS-SV and ABS-SE Part One Scores for the Regular Group .	52
9. Correlation Coefficients Among the CABS-SV and ABS-SE Part One Scores for the Learning Disabled Group	54
10. Correlation Coefficients Among the CABS-SV and ABS-SE Part One Scores for the Mildly Retarded Group	56
11. Intercorrelational Matrix of the PI1 Factor Analysis Results for the CABS-SV Domain Scores	58
12. Intercorrelational Matrix of the PI1 Factor Analysis Results for the ABS-SE Part One Scores	60
13. Means, Standard Deviations, and T-Values for the CABS-SV and CABS(Norms) in the Mildly Retarded Group	62
14. Significant Correlation Coefficients Across Groups	70
15. Total Percentage of Significant Correlations Across Groups	71

LIST OF FIGURES

Figure	Page
1. Analytic Paradigm	40
2. Means of the CABS-SV Scores Across Groups	44
3. Means of the ABS-SE Part One Scores Across Groups	48
4. Summary Comparison between the means ofCABS-SV and CABS (Am.Norms)	63

CHAPTER I

INTRODUCTION

The overall theoretical rationale for this investigation is related to the present controversy concerning the use and limitations of psychological instruments which reportedly do not adequately measure intelligence and the need for the development of other alternative and comprehensive assessment techniques. Psychometric investigators and experimental psychologists have proceeded along largely independent paths. That is to say that intelligence testing is under attack from many directions, diatribes appear regularly in popular magazines and newspapers, and some psychologists and specialists in related fields are proposing to discontinue testing entirely (Resnick, 1976). The use of IQ tests has been repeatedly questioned. Some courts ruled against their use for certain purposes (Larry P. v. Riles, 1979) and the Chicago Board of Education has banned the use of IQ tests for EMH placement (Chicago Public Schools, "Student Desegregation Plan", 1981).

The problems of assessment is particularly crucial when placement decisions and special education for minority students are involved because culture-fair, non-discriminatory and non-biased instruments are desired. The assessment of culturally, ethnically, or linguistically different students has come under considerable criticism from members of

minority groups (Bernal, 1975; Cervantes, 1979) and from members of the academic community (Mercer, 1971, 1978, 1979). These criticisms have a long and well documented history (Baca, 1978; Bersoff, 1980, 1981; Cervantes, 1974; Oakland, 1977).

Court decisions have had an enormous procedural influence on the provision of psychological assessments and special education services. Nearly all of the major principles codified in the legislation of the mid and late 1970s appeared earlier in judicial opinions and consent decrees (Bersoff, 1979; Reschly, 1980, 1982; and Turnbull, 1978). The litigation of the late 1960s and early 1970s was an important source of influence on state and federal legislation in the mid 1970s. Several litigations have challenged the placement of minority children in special classes solely on the basis of an IQ score. Some of these litigations are: *Hobson v. Hansen*, *Arreola v. Santa Ana Board of Education*, *Diana v. State of California* (1970), *Guadalupe v. Tempe Elementary District* (1972), *Spangler v. Pasadena Board of Education*, *Larry P. v. Wilson Riles* (1972, 1974, 1979), *Ruiz v. California State Board of Education*, *PASE v. Hannon* (Chicago 1980), (Cervantes, 1974, and Reschly, 1980, 1982). Undoubtedly, these law suits have influenced the "Protection in Evaluation Procedures Provision (Sections 121a.534, Federal Register, 1977) of PL 94-142" which describes the procedural requirements to be followed in the provision of appropriate assessment services for all students. Since the mid and late 1970s, the implementation of the law has been a target of different groups and more and more attacks on the questionable use of IQ tests in the placement of

educably mentally handicapped children in special classes have been made. It is evident that some benefits have followed from these litigations. They have made the psychologists and the public more sensitive to social and cultural differences. They have urged the professionals to be more responsible for their decisions regarding special education program placement. They have accelerated the search for alternative means of acceptable assessment, especially culture fair testing (Bersoff, 1980).

The prevailing "Bias Toward None" (1979) notion emphasizes the need for inclusion of adaptive behavior characteristics in the assessment process. This document echoes the importance of a pluralistic assessment procedure which assesses all relevant aspects of the child, (not only IQ), and urges the need of separate and local norms for various sociocultural groups.

The use of the IQ tests as the primary or sole criterion for defining "retardation" has proven to be less than satisfactory and has precipitated much of the litigation of the past decade questioning the use and abuse of such test scores for educational classification. Identifying a person as mentally retarded involves other components (adaptive assessment, procedural safeguards to ensure nonbiased assessment) in addition to IQ. Consequently, controversy regarding the appropriateness of the traditional IQ test and its use in making a differential placement in special education programs has become more and more acute. This is why an adaptive behavior measure has been introduced as a

crucial element in the evaluation of the student who probably needs special education placement. The use of administrative policy is an attempt to make the identification of mental retardation less biased against ethnic minorities (Coulter and Morrow, 1977). Although the adaptive behavior test has been found insufficient in the estimation of learning potential, it reportedly facilitates multidimensional assessment now required by federal legislation.

The overall purpose of the present study was to investigate systematically the adaptive behavior characteristics of a sample of Hispanic children (ages of 8 to 10) comparing their performance on two adaptive behavior scales across three educational program classifications. Educational programs were cross broken according to students enrolled in regular classes, students participating in classes for children with learning disabilities and students in classes for mildly retarded pupils. The instruments used and compared were the Children's Adaptive Behavior Scale (CABS-SV) translated into the Spanish language (as a part of this study) and the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One).

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature chapter includes a systematic discussion of adaptive behavior from a number of perspectives: First of all, a discussion of the historical development of the concept, factors influencing the present emphasis on the process of assessing children in special education, and different measures of adaptive behavior. This section reviews specific investigations relating adaptive behavior, intelligence, and educational placement and classification. Later, an examination of the main adaptive behavior scales currently in use with a focus on the CABS-SV and its translation are presented.

Adaptive Behavior

The adaptive behavior concept is not new. The term "social competence" was used well before the 1960s. Historically, the attempt to define the relevant aspects of an individual's behavior which effectively influence social functioning has been an objective of psychological assessment. Itard and Haslan in 1819, Sequin in 1837, Voisin in 1843, Howe in 1858, and Goddard in 1912 spoke about 'adaptive behavior' using such terms as social competency, skills training, social norms, adaptability to the environment, and efficiency of social value, (Coul-

ter and Morrow, 1977). Binet, in 1909, implicitly discussed adaptive behavior when he said that an individual would be considered normal "if he is able to work sufficiently remunerative [sic] to supply his own personal needs and finally if his intelligence does not unfit him for the social environment of his parents" (Coulter and Morrow, 1978, p. 11).

Two different but related factors appear to have contributed to the actual contemporary emphasis on the assessment of adaptive behavior: a) the new definition of mental retardation by the American Association on Mental Deficiency (AAMD), and b) the litigation and legislation during recent years. In 1959 the American Association on Mental Deficiency introduced the concept of adaptive behavior in its definition of mental retardation (Heber, 1959). In 1961 the concept included terms such as "maturation" and "social adjustment". Mental retardation was understood as "subaverage general intelligence manifested during the developmental period and associated with impairment in adaptive behavior" (Heber, 1961). Adaptive behavior, originally conceived as an adjunct to assessment of intelligence, was considered by some to be an alternative to traditional IQ testing (Leland, 1972).

In 1965, investigators at Parson State Hospital in cooperation with AAMD began a project related to adaptive behavior which: a) reviewed the relevant literature; b) developed methods and procedures for validating adaptive behavior as an independent dimension; c) developed a more concise definition of the concept; d) built a reference

library; and e) developed a measurement manual. Two adaptive behavior scales related to the findings of the Parson State Hospital project were initially produced, but the first scale (1969) was revised and integrated into one final scale: Adaptive Behavior Scale (ABS), (Nihira, Foster, Shellhaas and Leland, 1975). The Parson State Hospital project was almost "entirely institutional in origin" (Coulter and Morrow, 1978, p. 13). The issue of identification of mental retardation without ethnic or socioeconomic bias was not considered to be an important focus of the project.

In 1954, investigators at the Pacific State Hospital began a study of the families of the mentally retarded emphasizing the importance of the community aspects of mental retardation. In the early 1960s, Jane Mercer joined the research staff as a field director. Procedures were developed and an objective was established to identify those people in the community who were mentally retarded, regardless of whether they were known as mentally retarded to social agencies. The project investigators emphasized the identification of the mentally retarded in the community, whereas the Parson State Hospital investigators emphasized the programing of already identified mentally retarded persons. Adaptive Behavior was the term selected to describe this ability or inability to meet the demands of the social world (Mercer, 1973). The results of the study indicated that public schools labeled more people than any other agency. Black and Mexican American children were "overlabeled" as mentally retarded by public schools, while children with Anglo-Saxon descent were "underlabeled" as mentally retarded. These results docu-

mented the need to develop a multicultural, pluralistic method of assessment for schools which would evaluate children as multidimensional persons within particular sociocultural settings rather than maintain a bias toward the majority culture (Mercer, 1975). A new project to extend the work begun at Pacific State was founded in 1969, under the direction of Jane Mercer. She developed the System of Multicultural Pluralistic Assessment (SOMPA). One scale within the system was a measure of adaptive behavior. It was called the Adaptive Behavior Inventory for Children (ABIC) and was designed primarily to measure out-of-school role behaviors.

As stated previously, a second factor influencing the development and use of adaptive behavior was the emphasis on nonbiased assessment that resulted from litigation in the 1970s (Reschly, 1980). Assessment of adaptive behavior, from this perspective, was seen as a means to reduce the emphasis on intelligence test results, to provide more equitable assessment for minorities, and to alleviate the overrepresentation of minorities in the special education programs for the mildly retarded (Coulter and Morrow, 1977). Recent federal legislation implies that "adaptive behavior" data must be considered in all special education placement decisions (PL 94-142, 121a.533(a)(1), Federal Register, 1977). According to a recent survey (Patrick and Reschly, 1980), about two-thirds of the states require assessment of adaptive behavior for one or more of the special education classifications, usually mental retardation.

A great controversy took place in 1971 when the California state education code was modified to include a measure of adaptive behavior in the evaluation of students for placement as mildly retarded (Coulter and Morrow, 1977, page 28). This controversy of ethnic bias (Reynolds, 1982. pp. 178-208) in intelligence testing has not diminished. Recent court action in cases such as Larry P. v. Riles (California 1979), PASE v. Hannon (Chicago 1980), and related educational placement inquiries such as Efficacy of Special Classes (Reschly, 1982, p. 213), and Evaluation of Programs for the Mildly Retarded (Coulter, 1980; Finn, 1983; Heller, Holtzman, & Messick, 1982) have further intensified the dilemma of providing special services to meet educational needs versus the need to identify and classify children for administrative purposes.

Taken together, the events reported above have created an environment in which assessment of adaptive behavior is viewed as "important in evaluating persons from ethnic minorities and lower socioeconomic statuses, persons from backgrounds that did (do) not conform to the model pattern for the community" (Coulter and Morrow, 1977, p. 30). The resulting confusion from these two different purposes of assessment of adaptive behavior (Leland et al., 1967; Mercer, 1977) within the broad scope of psychological assessment may have confused appraisal practitioners in the selection and implementation of a measure of adaptive behavior. Additional interpretation difficulties exist when the student being assessed comes from an ethnic group not adequately represented and reported in the standardization population of the test instruments to which the individual's performance is being compared ("With bias toward

none", 1979, p. 20).

Assessment of Adaptive Behavior.

Several attempts have been made to define the concept of adaptive behavior (Coulter and Morrow, 1977). However, a consensus among the professionals has not been reached. One of the most acceptable definitions is that of the AAMD manual which defines "adaptive behavior" as: "The effectiveness or degree with which an individual meets the standards of personal independence and social responsibility expected for age and cultural group" (Grossman, 1973, p. 11). This definition points out, although vaguely, two important aspects of adaptation: a) the concept of independent functioning, and b) the concept of cultural relativism. Both aspects are of primary importance. The first aspect (one of the goals of the present investigation) assumes that children with developmental delays or intellectual deficits will have more difficulties than normal children in meeting the demands of their environments. The second aspect indicates that some specific behaviors could be considered adaptive in a particular society and maladaptive in another.

Although the emphasis of the schools for assessing adaptive behavior is to rule out mental retardation in children whose intellectual functioning is within the mentally retarded range; some other aspects, such as program planning and intervention, should be considered. The main point in assessment of adaptive behavior appears to be related to the appropriate classification or placement decisions with mildly handi-

capped persons.

There are numerous "behavior rating scales". Spreat (1980, p. 61) states that about 300 exist. However, it should be noted that only a few are designed specifically for school-age populations of normal, borderline, and mildly retarded individuals.

A number of peculiar problems related to the assessment of adaptive behavior were mentioned by Grossman (1977, pp. 20-21): 1) frequent discrepancies in level of adaptive behavior and level of intelligence with the mildly retarded; 2) unavailability of adaptive behavior instruments that are sufficiently precise to establish a definite cut-off score (such as minus two standard deviations from the population mean); and 3) poor norms and item content selected from studies of institutional populations (as the major psychometric limitations with most adaptive behavior instruments).

The administration of adaptive behavior scales is usually performed by interviewing parents, teachers, or other persons who know the child well. This kind of indirect assessment raises the rather serious question of reliability or what Meador and Richmond (1980) call "bias by the respondent." It is possible that this indirect assessment reflects the attitude toward the child and the biased opinion of the informant rather than the true social functioning of the child. Other scales require the interview with the child. A possible problem, particularly with children in the borderline or lower range of intellectual functioning, is that the results of the interview with the child

could reflect the child's limited verbal comprehension rather than his or her social functioning.

After the review of the most commonly used scales and behavior checklists, Sattler (1982) draws the following general conclusions: a) work is only at a beginning stage in the assessment of adaptive behavior and social competence; b) there are no nationally standardized and well normed scales of adaptive behavior that cover birth through adulthood; c) many adaptive behavior scales are normed only on a retarded population; d) the same factor label includes different behaviors, and similar behaviors are given different labels; e) reliability and validity mostly are questionable. Consequently, a considerable amount of additional work on instrument development and research on different ethnic groups and normalization appear to be needed at this time.

Tests of Adaptive Behavior.

The AAMD Adaptive Behavior Scale-Public School Version (ABS-PSV):
The main influences leading to the development of the ABS-PS were legal requirements in California regarding the classification or placement of students in programs for the mildly retarded. Other purposes such as providing information for educational programs and remediation were also cited by the authors (Lambert, Windmiller, Cole, and Figueroa, 1975). The items of the ABS-PS are a subset of items from the AAMD Adaptive Behavior Scale-Clinical (ABS-C) (Reschly, 1980, p. 38) which was developed from a deficit behavioral perspective among institutionalized

mentally retarded persons. The content of the ABS-PS version is the same as the clinical version except for the deletion of 15 of the original 110 items which were judged to be inappropriate for public school students.

The ABS-PSV is divided into two major sections. Section one might be termed adaptive behaviors since high scores indicate higher social functioning. The nine domains involving 56 items are: Independent Functioning, Physical Development, Economic Activity, Language Development, Numbers and Time, Vocational Activity, Self-Direction, Responsibility and Socialization. The second section might be called maladaptive behavior since the lower the scores the lower the level of social functioning. This part consists of 39 maladaptive behavior items with twelve domains: Violent and Destructive Behavior, Antisocial Behavior, Rebellious Behavior, Untrustworthy Behavior, Withdrawal Manners, Unacceptable Vocal Habits, Unacceptable or Eccentric Habits, Hyperactive Tendencies, Psychological Disturbances, and Use of Medications (Reschly, 1980).

The norms are based on a sample of 2600 school-age children in California. Norms cover the ages 7-13. Separate norms by ethnicity and sex are provided for section II of the instrument. No standard scores are provided for the domain scores and no overall score for the major section is available.

Although the ABS-PSV has many reported limitations, it appears as though it can be a useful adjunct to clinical judgment in classification

or placement decisions, and to a lesser degree, in program planning or intervention decisions. The major reported weakness is that the content validity is questionable in view of the original purpose of the ABS-C version. The items require a considerable degree of inference or guessing because the respondent is the teacher, who usually has limited information about social performance outside the school. The methods of interpretation and comparison of profiles appear variable and highly subjective.

The AAMD Adaptive Behavior Scale, School Edition (ABS-SE): The AAMD Adaptive Behavior Scale, School Edition was originally developed by Kazuo Nihira, Ray Foster, Max Shellhaas, and Henry Leland, revised and standardized in 1974 by Nadine Lambert, Myra Windmiller, and Linda Cole, and revised again and standardized in 1981 by Nadine Lambert and Myra Windmiller. This scale (1981 version) is based on the AAMD Adaptive Behavior Scale, Public School Version (ABS-PSV) which was developed to aid school personnel in obtaining measures of children's personal independence and social skills and to reveal areas of functioning where special program planning may be required. It was designed to provide pertinent information about children and the ways in which they respond to their environments, thus helping schools provide appropriate educational experiences in the least restrictive environment, (Lambert, 1981, p. 3).

Since 1975, ABS-PSV has been used throughout the United States and a number of workshops and training sessions have been conducted to

facilitate its use. ABS-SE is a response to the need of persons working in the field who have asked that the procedures be revised and that the reference-group norms be expanded to cover a wider age range. It contains scaled score norms tables for regular class (Regular), educable mentally retarded (EMR), and trainable mentally retarded (TMR) children aged three through sixteen.

An alternative scoring method based on factor analysis was developed that allowed simplification of the description of adaptive behavior from twenty one meaningful domain scores to five domains of adaptive behavior: (Some domain names were changed): 1) Personal Self-Sufficiency, 2) Community Self-Sufficiency, 3) Personal-Social Responsibility, 4) Social Adjustment, and 5) Personal Adjustment.

A comparison score was also developed that indicates the extent to which a particular child's comparison score is similar to the comparison score found in any of three reference groups (R, EMR, or TMR). These developments, as well as additional validity and reliability data supporting the use of ABS-PSV, also warranted a revision which resulted in the ABS-SE.

The standardization sample for ABS-SE was drawn from the original California sample and from other sources (Florida and California). A total of 6500 persons aged three through sixteen was used to generate percentile and scaled score norms. The ethnic status included white, black, Hispanic and others. Predictive validity and construct validity were well documented. In summary: research supports the assumption

that Part I domains reflect behaviors that are acquired by both boys and girls similarly across the three major ethnic groups represented in the study. Additional data indicate that children assigned to Regular, EMR, and TMR programs were significantly different with respect to adaptive behavior. Within those classifications, boys and girls from different ethnic groups had, on the average, similar levels of adaptive behavior. The improvements in this new version of the ABS-SE seem to make it useful in school evaluation, placement, and intervention.

The Adaptive Behavior Inventory for Children (ABIC): This instrument was developed with the explicit purpose of improving classification/placement decisions with the mildly retarded between the ages of 5-11 (Mercer, 1979). This is part of a broader assessment device, the System of Multicultural Pluralistic Assessment (SOMPA). This test was created to meet the need for a more suitable evaluation procedure of the whole child rather than looking only at the intellectual area. The ABIC reflects a strong social systems perspective with emphasis on how the child functions in different settings and different social roles (Reschly, 1980, p. 39). The domains covered by the ABIC are: Family, Community, Peer Group, Nonacademic School, Earner/Consumer, and Self-Maintenance.

The ABIC is administered as a structured interview. The primary caretaker of the child, typically the mother, is the preferred respondent. For each item the mother chooses among three possible responses. The average of the standard scores is used as a composite or global

index of adaptive behavior. The standardization sample consists of 2085 interviews (696 blacks, 690 Hispanics, and 699 white) with parents of California, public school children, 5-11 years of age, during 1972-1973. There is a version of the ABIC in Spanish.

Reschly (1980, p. 41) states:

Although the ABIC is one of the best instruments published to date for assessment of adaptive behavior outside of school with normal or mildly handicapped children, a number of weaknesses should be recognized when interpreting scores: The accuracy of these norms in other settings and for other groups is questionable.

The norms are entirely based on California school-age children. Academic role performance is not included on the scale, and is de-emphasized in Mercer's conception of adaptive behavior. The reliabilities for the ABIC average scale scores are .95 or higher, and for the subscales most of the coefficients are above .75.

The Vineland Social Maturity Scale (VSMS): The Vineland Social Maturity Scale is one of the oldest measures of social competence (adaptive behavior) developed by Doll in 1953. It continues to be used quite widely. One of the reasons for the current use of this test is that other scales are limited in the age range or were not available until very recently (Reschly, 1982, p. 229).

The domains of behavior covered by the VSMS are: Self-Help General, Self-Help Eating, Self-Help Dressing, Locomotion, Occupation, Communication, and Socialization. The test yields a composite score which can be transformed to a Social Quotient (SQ). Unfortunately, the norms for the VSMS are based on rather restricted samples.

The Vineland Adaptive Behavior Scales (VABS): The Vineland Adaptive Behavior Scales are a revision of the Vineland Social Maturity Scale by Sara S. Sparrow, David A. Balla, and Domenic V. Cicchetti. This 1984 revision of the Vineland Social Maturity Scale (Doll, 1953-1965) retains many of the major characteristics of the original Vineland scale and is applicable for all ages. It includes three versions: an Interview Edition, Survey Form; an Interview Edition, Expanded Form; and a Classroom Edition. The Survey Form and Expanded Form assess individuals from birth to 18 years 11 months of age, and low functioning adults. The classroom edition is appropriate for students 3 to 12 years 11 months of age.

Adaptive behavior is assessed in four domains (Communication, Daily Living Skills, Socialization, Motor Skills) and eleven subdomains which are combined to form the Adaptive Behavior Composite. The Survey Form and Expanded Form also include a maladaptive behavior domain. The revised Vineland is the only adaptive behavior scale standardized on representative national samples of individuals selected to match 1980 U.S. census data. Stratification variables include: age, sex, race or ethnic group, community size, region, and parents' educational level. Materials include a record booklet in English and Spanish. (Interview Edition: available in May, 1984; the complete Vineland Adaptive Behavior Scales: available in November, 1984). (Instructional Materials and Tests Catalog, American Guidance Service, 1984.)

The Children's Adaptive Behavior Scale (CABS): The Children's Adaptive Behavior Scale developed by Bert O. Richmond and Richard H. Kicklighter, 1980, is a new scale. It is somewhat innovative because, rather than being administered to the parents or teachers, it is administered directly to the child. The test is designed to measure skill development in the age range of five to ten years. The scale consists of five separate sets of items with each set devoted to a "domain" of functional competency. The number of items in each set varies from a low of 16 to a high of 30. However, the total score obtainable in each domain is 40. Each item should be administered to each child to obtain separate domain scores as well as a total score on the scale. There is an appropriate range of items from age-level three to twelve, which provides a sufficient "floor" for seriously defective five year old children as well as enough "ceiling" for mildly impaired ten-year-olds. The test appears to emphasize the cognitive competencies which are required for various adaptive behaviors.

The scale covers five domains: Language Development, Independent Functioning, Family Role Performance, Economic Vocational Activity, and Socialization. Each of these five measured domains yields a raw score that can be compared to the average score attained by a mildly retarded child of comparable chronological age. A total score of the five domains, also can be obtained and compared with the average total score (Richmond and Kicklighter, 1980, pp. 5-6).

The normative sample consisted of 250 mildly retarded children (IQ

range 55-70) in South Carolina and Georgia public schools. The manual provides the means and standard deviations for age level 6, 7, 8, 9, and 10 in each of the five measured domains and in the total of the domains. The authors have recommended the establishment of local norms because they acknowledge their data may not represent the typical performance of students in all school systems, particularly when they have different backgrounds.

Reliabilities of the CABS domain and total scores, using the Kuder Richardson formula are: .63 for language development, .83 for independent functioning, .69 for family role performance, .71 for economic-vocational activity, and .63 for socialization; and .91 for the total CABS score. Test-retest reliabilities with an interval of two weeks between test were .98 for economic-vocational activity and socialization, and .99 for all other domain and total scores. The product moment correlation between CABS domain and total scores and the WISC-R range from .25 to .57.

The fact that the CABS separate domain and total scores increase with the chronological age of the child has been interpreted by the authors as an indication of the "credibility to the use of the scale as one portion of the process of measuring social/adaptive competency" (Richmond and Kicklighter, 1980, p. 13). Although the CABS manual does not indicate how many blacks and whites were in the standardization sample, it specifies that black children as a group have higher raw scores than whites which suggest that this scale does not discriminate

unfairly against black children. However, this could also mean that the test discriminates against white children, that the black children in the sample were older than the white children or any number of other things.

Other Measures of Adaptive Behavior

As was mentioned there are numerous measures of adaptive behavior (Spreat, 1980, p. 61, indicates the existence of about 300 "behavior rating scales"). Coulter and Morrow (1977, 1978), CORRC (1979), Oakland and Goldwater (1979), Reschly (1980, 1982), and many other authors mention lists of several measures of adaptive behavior. Table 1 presents a comparative summary of many adaptive behavior scales. (See Appendix A for further details.) Many of these scales however, have not been standardized yet, have only local norms, or are not currently available for general use.

Research on Adaptive Behavior.

Adaptive behavior scales are relatively new instruments. Consequently, little systematic research has been published on them thus far. The adoption of these scales has been necessitated primarily because of legal and procedural diagnostic, classification and placement mandates. Because perhaps too much emphasis has been reportedly put on intelligence in the past while disregarding adaptive behavior, the new emphasis

Table 1
MEASURES OF ADAPTIVE BEHAVIOR *

Behaviors Assessed

S C A L E S	Physical development sensory motor/locomotion	Self-direction/responsibility	Language/communication	Vocational/occupational skills	Economic	Social	Self-help/independent functioning self-maintenance	Achievement	Emotional	Cognition/intelligence	Personality characteristics	Inappropriate behavior	With peers in school	In the family	In the community	Age range	Population type	Purpose	Examiner	Respondent	Reliability Avail. Validity	Scores	Administration time (minutes)	
																					Yes/no	Grade equivalent	Percentile Mean/scaled score	
AAMD Clinical Version (Mihira, et al., 1974)	X	X	X	X	X	X	X	X	X	X	X	X				3-Ad.	Clinical School	Screening Placement	Teacher	Parent/family	Child	Yes	X	45-60
AAMD Public S. Version Lambert, et al., 1974	X	X	X	X	X	X	X	X	X	X	X	X				7-13	School	Screening Placement	Teacher	Parent/family	Child	Yes	X	45-60
AAMD ABS-School Edition Lambert, et al., 1981	X	X	X	X	X	X	X	X	X	X	X	X				3-17	School	Screening Placement	Teacher	Parent/family	Child	Yes	X	45-60
Adaptive Func. Index Marlet-Hughson 1971-78	X		X		X	X	X	X								14-Ad.	School	Screening Placement	Teacher	Parent/family	Child			
Balthazar S. of A.B. Balthazar, 1971-76		X	X			X	X				X					Ad.			Teacher	Parent/family	Child			60
Cain-Levine Social C.S. Cain, et al., 1963		X	X			X	X									5-13		Screening Placement	Teacher	Parent/family	Child		X	20
California Preschool Levine, et al., 1966			X		X											2.5-5.5	School	Screening Placement	Teacher	Parent/family	Child	Yes	X	20
California Psych. Inv. Gough, 1956-75		X				X	X	X	X	X						13-Ad.			Teacher	Parent/family	Child			45-60
Camelot Behavioral C. Foster, 1974	X	X	X	X	X	X	X				X					2-Ad		Screening Placement	Teacher	Parent/family	Child			60
Adaptive B. I. for C. Mercer & Lewis, 1978				X	X	X	X						X	X	X	5-11	School	Screening Placement	Teacher	Parent/family	Child	Yes	X	60
Children's A.B. Scale Richmond-Kicklighter/80			X	X	X	X	X						X	X	X	6-10	School	Screening Placement	Teacher	Parent/family	Child	Yes	X	20-30
Devreux C.B.R. Scale Spivack-Spotts, 1966	X				X	X		X		X	X					8-12			Teacher	Parent/family	Child			
Early S.P. Questionnaire Coan-Cattell, 1966-67					X			X	X							6-8			Teacher	Parent/family	Child			60-100
Fairview Devp. Scale Boroskin, et al., 1971-74	X	X			X	X										All		Screening Placement	Teacher	Parent/family	Child			15-60
Presch. Kgn. P. Profile DiNoia, et al., 1970	X	X			X			X	X							3-6			Teacher	Parent/family	Child			
Pennsylvania T.M.I.A.G. Somerton-Fair, Turner/79	X	X			X	X		X	X				X			3-Ad.		Screening Placement	Teacher	Parent/family	Child			
Presch. Attainment R. Doll, 1966-67	X	X	X		X	X										Birth-7		Screening Placement	Teacher	Parent/family	Child	No	X	20
SEED Develop. Profiles Herat, et al., 1976	X	X			X			X	X							Birth-4			Teacher	Parent/family	Child			
IARC Assessmt. I. S.H.C. Sailor-Mix, 1975	X	X			X	X										3-16			Teacher	Parent/family	Child	No		60
T.M.R. School Com. S. Levine, et al., 1976	X	X	X		X				X							5-17			Teacher	Parent/family	Child			
Uniform P. Assess. Syst. Haring, et al., 1981	X	X			X	X			X							Birth-12			Teacher	Parent/family	Child		X	
Vineland A.R. Scales Sparrow (Doll), et al., 1973-84	X	X			X	X										Birth-18	Clinical School	Screening Placement	Teacher	Parent/family	Child	Yes	X	20

* See Appendix A for details and other measures of adaptive behavior.

on measurement of adaptive behavior has been with the overall intention of providing a more comprehensive and fair assessment including areas not previously considered.

A relatively recent issue directly related to the adoption of adaptive behavior scales has been the overrepresentation of minorities in classes for the mildly retarded. It has been assumed that many of the mildly retarded children were not truly retarded, but they were placed in special classes because of failure to assess their functioning out of the schools. The few data available indicate that the assessment of behavior which occurs outside the school context can reduce the overrepresentation of minority students in classes for the mildly retarded (Talley, 1979). It is not known, however, to what extent the declassification effects are due to the impact of adaptive behavior scales or to the lower reference IQ points for eligibility in programs for the mildly retarded. All things considered, two important research questions concerning adaptive behavior measures appear to be particularly relevant: The relationship between adaptive behavior and intelligence and the generalization of norms.

A comprehensive review of the literature on social competence, adaptive behavior, and intelligence revealed a great deal of variability among studies (Leland, Shellhaas, Nihira, and Foster, 1967). The relationship between adaptive behavior and IQ varied depending on the measures used, the type of subject, and the variability within samples. In most studies, correlations between adaptive behavior and IQ were in the

moderate range, about .40 to .60. Furthermore, the correlations were quite different for a sizeable number of persons (Reschly, 1982, p. 231).

Relatively few studies of the correlation between IQ and recently developed measures of adaptive behavior have appeared in the literature (Coulter & Morrow, 1978; Oakland, 1983; Reschly, 1982; Roszkowski & Bean, 1980; and Thiel, 1981). The significant difference on the ABS-PS between students in regular programs and students in programs for the mildly retarded suggests that the ABS-PS is probably correlated at a statistically significant level with IQ. On the ABS-SE, the domain scores were correlated with the IQ scores of 3737 regular, educable mentally retarded, and trainable mentally retarded children grouped into age ranges of three through six, seven through eight, nine through ten, and eleven through twelve. Several measures were used: WISC, Stanford-Binet, Lorge-Thorndike Intelligence Test, and others. The results of the correlations were: on Part I domains, the magnitude of the relationship between IQ and domain scores ranges from low (.18 to .28) to moderate (.32 to .63). On Part II domains, the correlation between IQ and Domain scores was low across all age groups -.23 to .28 (Lambert, 1981, p. 25).

Correlation between the ABIC and WISC-R scores have been reported by a number of authors (Reschly, 1980; Mercer, 1979; Oakland, 1980). These correlations have been in the low range varying from near zero to as high as .30 with a median of about .15. These correlations are

considered lower than the correlations reported by Mercer herself (1973, p. 187) for the relationship of IQ and the ABIC used in the Riverside studies. Therefore, the evidence available to date suggests that the ABIC and measures of intelligence are largely independent.

Contrary to the results obtained from the ABIC, fairly high correlations between adaptive behavior and intelligence were reported by the authors of the CABS (Kicklighter, Bailey and Richmond, 1980). For a sample of mildly retarded and slow learning children the correlations were in the range of .40 to .50. The reason for the higher correlations on the CABS, in contrast to the ABIC, is probably due to the greater emphasis on the cognitive aspects of adaptive behavior. The problem of items very similar to those on standard intelligence tests on this test and the theoretical question of the degree to which intellectual aspects could be involved in adaptive behavior scales are addressed in the discussion section of this manuscript.

The selection of specific adaptive behavior measures appears to be a major influence in supporting the relationship of adaptive behavior and intelligence. The relationship of adaptive behavior to intelligence has significance for specification of the meaning of both constructs. This crucial point is addressed and discussed in chapter V.

Classification/placement decisions are typically made on the basis of the severity of the handicap and the degree to which it affects a child's ability to profit from instruction. Such decisions in the area of mildly handicapped conditions require the use of norm-referenced

measures. The representativeness and accuracy of norms for adaptive behavior measures are, therefore, important considerations.

The situation with respect to the quality of the norms for existing adaptive behavior scales is very limited. Both the ABS-PS and ABIC use norms based on California children and ABS-SE norms are based on California and Florida children. The norms for the CABS and the VSMS are similarly restricted to persons from a specific geographic area. Other major limitations (small sample, limited age range, no indication of socioeconomic status, scoring criteria quite vague) are frequently found for many of these scales. All things considered, the available data suggest caution in the use of the norms for adaptive behavior measures in other regional areas. The localities included thus far in studies have been restricted to the southwest. The generalizability of these findings to other areas is questionable. Even greater caution should be exercised in the use of these norms with other sociocultural groups (Reschly, 1982, p. 232).

Consequently, the need for more research in the field of adaptive behavior within the context of different sociocultural groups is clearly indicated. The development and use of local norms of adaptive behavior characteristics would facilitate and assure accurate and fair educational placement decisions.

Recapitulation

The concept of adaptive behavior is not new. It was used long before 1960 to mean "social competence" which is essentially the same as "adaptive behavior" under new terminology. Since 1819 with the work of Itard and Haslan (Coulter and Morrow, 1977), similar terms have been used. The new definition of mental retardation presented by the AAMD, the litigation and legislation during the past few years, and the emphasis on nonbiased assessment have contributed to the present emphasis on the use of adaptive behavior measures.

The first formal studies of adaptive behavior were in 1954. The Pacific State Hospital project was designed to study the families of the mentally retarded emphasizing the importance of community supports for the care and treatment of mentally retarded. "Adaptive behavior" was the term selected to describe this ability or inability to meet the demands of the social world. In 1965, investigators affiliated with the Parson State Hospital project, in cooperation with AAMD investigators began a comprehensive project related to adaptive behavior.

A great controversy took place in California (1971) when the state education code was modified to include a measure of adaptive behavior in the evaluation of students for placement as mildly retarded. This controversy related to the reported ethnic bias in intelligence testing has increased and recent court actions in some cases have intensified the issue (i.e., the question of the use of IQ tests and/or the need for adaptive behavior measures).

Several attempts have been made to define the concept of adaptive behavior. One commonly accepted definition is: "The effectiveness or degree with which an individual meets the standards of personal independence and social responsibility expected for age and cultural group" (Grossman, 1973, p. 11). Several attempts have been made to develop such scales, but only a few of these are designed for school-age populations. They are not nationally standardized, but normed only on a retarded population. Reliability and validity appear questionable at best.

The most popular measures of adaptive behavior for use in the schools at the present time are: AAMD ABS-PSV, AAMD ABS-SE, ABIC, VSMS and CABS. The administration of adaptive behavior scales is usually performed by interviewing parents, teachers, or other persons who know the child well. One exception is the CABS which is somewhat innovative in the way that it is administered directly to the student.

This cursory and selective review of the related literature and research concerning adaptive behavior revealed a need for systematic investigation in this field, particularly when the assessment of minority ethnic groups is involved. There appears to be a demand for reliable and valid measures of adaptive behavior in the native language of various ethnic groups. Public Law 94-142, 121a,532(a) states: "Tests and other evaluation materials: (1) Are provided and administered in the child's native language or other mode of communication, unless it is clearly not feasible to do so;" (Federal Register, 1977). (This was one

of the reasons to translate the CABS into the Spanish language inasmuch the scale is applied to the child and he/she should read some items and write the answers in others). These measures need to be standardized or at least to have local norms for their respective cultural groups (CORRC, 1979, p. 2).

Limited investigation has been done related to the determination of differences in adaptive behavior across different ethnic groups. Another area where limited research has been done is in the determination of differential relationships between adaptive behavior across academic classifications, and the interrelationships across different educational intervention programs (for "regular" students, for pupils with "learning problems", and for the "mildly retarded"). This rather cursory and selective review of the literature and research related to actual practices in urban educational structures has indicated that no normalized adaptive behavior scale in Spanish exists at the present time.

As stated at the end of chapter I, the overall purpose of the present study was to investigate systematically the adaptive behavior characteristics of a sample of Hispanic children (ages of 8 to 10) comparing two adaptive behavior scales across educational program classifications. The instruments used and compared were the Children's Adaptive Behavior Scale translated into the Spanish language (CABS-SV) and the AAMD Adaptive Behavior Scale-School Edition Part One (ABS-SE). The CABS was selected because of its uniqueness and innovative approach:

rather than being answered by the parents or teachers, it is administered directly to the child. The potential practical advantage of these characteristics is mainly to avoid the called "respondent bias" by observing and recording directly the child's behavior. The other test selected for this comparison of adaptive behavior characteristics was the ABS-SE, Part One (recently revised and standardized) which consists of nine domains similar to the CABS domains. This test follows the third-party assessment procedure in which the child's teacher provides the information about the student. This test was selected because it is widely used and because it is "typical" of other widely used adaptive behavior scales.

CHAPTER III

METHOD

Hypotheses

The following null hypotheses were tested:

Ho 1: There is no significant difference in the scores (total and domains) on the Children's Adaptive Behavior Scale-Spanish Version (CABS-SV) across groups (regular ("R") students, learning disabled ("LD") children, and the mildly retarded ("MR")).

Ho 2: There is no significant difference in the scores (total and domains) on the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One), across groups (regular ("R") students, learning disabled ("LD") children, and the mildly retarded ("MR")).

Ho 3: There is no significant relationship between the scores (total and domains) on the Children's Adaptive Behavior Scale-Spanish Version (CABS-SV) and the scores (total and domains) on the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One), in the regular ("R") group.

Ho 4: There is no significant relationship between the scores

(total and domains) on the Children's Adaptive Behavior Scale-Spanish Version (CABS-SV) and the scores (total and domains) on the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One), in the learning disabled ("LD") group.

Ho 5: There is no significant relationship between the scores (total and domains) on the Children's Adaptive Behavior Scale-Spanish Version (CABS-SV) and the scores (total and domains) on the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One), in the mildly retarded ("MR") group.

Subjects

Ninety (90) Hispanic subjects were selected from Spanish speaking children (boys and girls between the ages of 8 to 10). The children selected for inclusion in this study resided in a large midwestern city, had parents of Spanish, Mexican, Puerto Rican, Central American, and South American descent, and spoke Spanish as their primary language. Thirty (30) children were participating in regular classes, thirty (30) children were enrolled in classes for students considered as learning disabled, and thirty (30) children were enrolled in special classes for the mildly retarded.

The academic classification variable refers to the following educational classifications:

a) Regular classes consist of students who, according to the teacher or school staff, are considered "normal" intellectually and socially; have Iowa test or other standardized achievement test scores indicating functioning no lower than one year below the norm for their grade or age cycle placement; and have never been referred for a special education case study evaluation.

b) Classes for children with learning problems consist of students enrolled in classes for the mildly learning disabled who have been identified as having some deficiencies in areas of learning, and are about two years behind in achievement on basis of the Iowa test or other standardized achievement tests.

c) Classes for the mildly retarded consist of students who have been tested (IQ score range of 55-69), are academically functioning more than four years behind in achievement on the basis of the Iowa test or other standardized achievement tests, and have been considered eligible to participate in this type of program determined by certified school psychologists and multidisciplinary staff conference.

Table 2 presents a numerical description of the subjects according to the classification groups, sex, origin, and age.

Instrumentation

The instruments selected for this investigation were: the Children's Adaptive Behavior Scale (CABS) designed by Bert O. Richmond and

Richard H. Kicklighter, and translated into the Spanish language (CABS-SV) by the investigator and an "evaluative team" and the AAMD Adaptive Behavior Scale-School Edition (ABS-SE) Part One designed by Nadine Lambert and Myra Windmiller.

Table 2

Distribution of the Sample

Age	Regular						Learning Disabled						Mildly Retarded					
	Boys			Girls			Boys			Girls			Boys			Girls		
	Mx	PR	Oth	Mx	PR	Oth	Mx	PR	Oth	Mx	PR	Oth	Mx	PR	Oth	Mx	PR	Oth
8	2	2	-	3	3	-	1	5	-	3	1	-	4	2	-	2	1	1
9	2	3	1	1	3	-	2	3	1	2	2	-	3	2	2	-	2	1
10	3	1	-	4	2	-	2	4	-	3	1	-	2	4	-	1	3	-
T.	7	6	1	8	8	-	5	12	1	8	4	-	9	8	2	3	6	2
T.	14			16			18			12			19			11		

As stated previously in Chapter II, the CABS is relatively new (1980) and is somewhat innovative because, rather than being administered to the parents or teachers, it is administered directly to the child. The test is specifically designated to measure skill development in the age range of five years to ten years. The scale consists of five separate sets of items with each set devoted to a "domain" of functional competency. The test reportedly emphasizes the cognitive competencies which are required for various adaptive behaviors. The scale covers five domains: Language Development (LD), Independent Functioning (IF), Family Role Performance (FRP), Economic Vocational Activity (EVA), and Socialization (So). The materials needed for the test are: 3 quarters, 3 dimes, 3 nickles, 1 pair scissors, 1 sheet paper, and 8 same color blocks. The assessment tasks are non-threatening and the experience with the test shows that most children enjoy the items and move through them quickly.

In order to translate the CABS from English into Spanish, a group of Spanish bilingual specialists met as an "evaluative team" consisting of four Spanish speaking school psychologists and four Spanish bilingual teachers. Both groups systematically reviewed and approved the Spanish translation of the Children's Adaptive Behavior Scale. A group of six parents also were consulted concerning the understandability of the translation and those items considered more "personal" (IF # 8, # 27, #28; So # 1, # 10) and/or unclear (EVA # 18) for administration to the subjects were modified. The translation was presented to a pilot group of six children in order to test the appropriateness of the translation.

After deliberation of the "evaluative team", parental group, and pilot test results, a final form of the translation of the scale was prepared. This translation called Escala de Conducta Adaptativa para Niños-Versión en Español, (ECAN-VE), or Children's Adaptive Behavior Scale-Spanish Version (CABS-SV), is the one which was utilized in the present investigation (see Appendix B for details). The CABS "Scoring Guidelines" were clarified and modified in some instances (IF # 8; FRP # 7; EVA # 16, # 17, # 18; So # 1) (see Appendix C for details).

The AAMD ABS-SE (1981), based on the AAMD ABS-PSV was designed to assess social adjustment behaviors which reportedly make up adaptive behavior. The scale is divided into two parts and covers twenty-one areas of adaptive behavior. Part One, used in this investigation is organized along developmental lines and is designed to evaluate a person's skills and habits in nine behavior domains, comprising groups of related activities. These domains are considered important to the development of personal independence in daily living. The nine domains are: Independent Functioning (IFc), Physical Development (PhD), Economic Activity (EA), Language Development (LDv), Numbers and Time (NT), Prevocational Activity (PA), Self-Direction (SD), Responsibility (Rs), and Socialization (Sc). Each scale item consists of a list of statements. Each describes a behavior. The person completing the scale rates the child on each item. The scale is usually completed by the teacher or the school psychologist. The parent may also be asked to help. In the present investigation, this scale was completed by the student's teacher.

Procedure

The investigator utilized the following steps in an attempt to obtain the appropriate permits and consents from parents and school principals: a) Discuss and explain the overall plan of the investigation with the school principals; b) Consult with the appropriate teachers concerning the identification of parents whose children might best serve as subjects in the investigation; c) Contact the parents in order to explain completely the purpose of the investigation and obtain their written consent.

Prior to the administration of the CABS-SV, efforts were made to establish rapport and to motivate the child explaining the purpose of the study and describing briefly the type of activities involved. The researcher administered the tests individually in sessions that lasted approximately 30 minutes. Some of the sessions (50%) were held at the schools but not during regular classes and other sessions were held at the children's homes.

The instructions set forth in the test booklet for the application of some items (see Appendix B for details) were strictly followed. In some instances written answers were required while in others check marks were required (/ if correct; - if wrong). In many cases, answers such as: name of the dog (cat), telephone number, etc., were verified with the mother/father or other relative when possible. Personal references (name of persons, address, telephone number, etc.,) were not recorded in the protocol to maintain confidentiality but were written separately and

verified when possible. Efforts were made to encourage responses to all items.

On the top left side of the protocol, a code number was written as the only identification reference. A "Data" sheet (see Appendix D) was used to collect basic information (i.e., subject's number (code number), sex, origin, place of birth, date of birth, date of test, age, grade, program, previous psychological evaluations (if any) and achievements results). This "Data" sheet was also utilized to record the raw scores of all the scales on the two adaptive behavior tests.

It is important to note that the students were very cooperative during the sessions and appeared to enjoy the experience.

In the administration of the ABS-SE, Part One, the investigator followed the "third-party assessment" procedure in which the child's teacher provided the information about the student (see Lambert et al., (1981), ABS-SE, Administration and Instructional Planning Manual, p. 9 for details). This "third-party assessment" procedure helped ensure that accurate and comprehensive data were obtained. The completion of this test took about 25-30 minutes and all the instructions set forth in the beginning of the protocol were strictly followed. This test did not need translation because the bilingual teachers were fluent in English.

The researcher scored all 90 protocols of the CABS-SV according to the "Scoring Guidelines" (see Appendix C for details). The protocols were completely anonymous inasmuch as they had only a code number for identification. The investigator reviewed the scoring three times, case

by case, and in some instances requested the assistance of other Spanish speaking psychologists. The raw scores obtained were recorded on the "Data" sheet. When the scoring process was completed the protocols were cut on the dotted line entirely separating the answers from the scores. The scoring of the 90 protocols of the AAMD ABS-SE, Part One, was performed according to the "General Instructions" and "Instructions for Part One" set forth in the booklet of the test. The investigator reviewed three times the scoring of each one of the cases and recorded the raw scores on the "Data" sheet.

Design and Statistical Analysis

The investigator sought to test the hypotheses of the study within the context of the analytic paradigm illustrated in Figure 1. The dependent variables: scores of the 'domains' of the CABS-VS and the AAMD ABS-SE Part One were examined in relation to the independent variables: academic classification groups of regular students, children with learning problems, and the mildly retarded students.

Analysis of variance procedures were used to assess the influence of the independent variables on the dependent variables in testing of null hypotheses 1 and 2, and the Pearson product moment correlations were used to assess the relationships between the dependent variables and the independent variables related to testing null hypotheses 3, 4, and 5.

Figure 1

Analytic Paradigm

	Regular	Learning Disabled	Mildly Retarded
CABS - SV	n=30	n=30	n=30
AAMD ABS-SE	n=30	n=30	n=30

CHAPTER IV

RESULTS

Results Related to Null Hypothesis One

To test null hypothesis one (there is no significant difference in the total and domain scores on the Children's Adaptive Behavior Scale-Spanish Version (CABS-SV) across comparison groups), the investigator performed an ANOVA test to determine the significance of the differences between the means of the three groups. The results showed that the total mean scores as well as the domain mean scores were significantly different across groups ($F = 72.38/30.90$; $df = 2,87$; $p < .0001$), (see Tables 3 and 4, and Figure 2 for details). In addition, the researcher conducted a Duncan's Test, a Tukey's Test, and a Scheffe's test with alpha level set at $p < .05$. The results of these tests indicated that the children in the three comparison groups performed significantly differently on the Children's Adaptive Behavior Scale-Spanish Version (both total and domain scores) (see Table 5 details). Given that which is reported above, the investigator rejected null hypothesis one indicating that there is a significant difference in the total and domain scores of the CABS-SV across the three comparison groups (regular, learning disabled, and mildly retarded).

Table 3
 MEANS AND STANDARD DEVIATIONS OF THE SAMPLE
 on the
 CABS-SV and ABS-SE Part One

CABS-SV	<u>Regular</u>		<u>Learning Disabled</u>		<u>Mildly Retarded</u>		<u>Total Groups</u>	
	M	SD	M	SD	M	SD	M	SD
LD	37.10	1.71	33.87	2.76	28.83	4.90	33.27	4.79
IF	32.43	3.21	27.93	3.40	22.93	4.97	27.77	5.51
FRP	33.60	2.19	30.80	2.82	27.50	3.79	30.63	3.89
EVA	34.10	3.02	29.60	3.00	24.13	4.41	29.28	5.39
So	33.07	2.03	29.97	2.50	26.07	2.80	29.70	3.77
Total	170.30	9.09	152.17	11.20	129.47	17.67	150.64	21.25
ABS-SE Part I								
IFc	62.77	4.36	53.00	5.01	43.30	5.79	53.02	9.44
PhD	22.90	.84	21.47	1.19	19.83	1.02	21.40	1.62
EA	7.43	.90	5.40	1.54	3.07	.91	5.30	2.13
LDv	30.20	2.38	22.67	3.24	17.63	1.86	23.50	5.78
NT	10.27	1.17	7.87	1.36	6.37	1.03	8.17	2.00
PA	8.83	1.05	6.53	1.25	4.63	.85	6.67	2.02
SD	12.50	1.68	8.27	2.32	4.97	1.00	8.58	3.55
Rs	3.77	.50	2.73	.74	1.83	.38	2.78	.97
Sc	16.50	1.50	13.23	1.92	10.37	1.85	13.37	3.07
Total	175.17	11.68	141.17	15.69	112.00	12.38	142.78	29.13
N = 30		N = 30		N = 30		N = 90		

The names of the domains are given in the text.

Table 4
ANOVA Summary Table for CABS-SV Scores
(Total and Domain Scores) Across Groups
(Regular, Learning Disabled, and Mildly Retarded)

source	df	SS	MS	F	p
CABS-SV Total					
Model	2	25114.69	12557.34	72.38	.0001*
Error	87	15093.93	173.49		
Total	89	40208.62			
Language Development					
Model	2	1041.27	520.63	45.19	.0001*
Error	87	1002.33	11.52		
Total	89	2043.60			
Independent Functioning					
Model	2	1355.00	677.50	43.63	.0001*
Error	87	1351.10	15.53		
Total	89	2706.10			
Family Role Performance					
Model	2	559.40	279.70	30.90	.0001*
Error	87	787.50	9.05		
Total	89	1346.90			
Economic Vocational Activity					
Model	2	1494.69	747.34	59.69	.0001*
Error	87	1089.37	12.52		
Total	89	2584.05			
Socialization					
Model	2	738.20	369.10	60.74	.0001*
Error	87	828.70	6.08		
Total	89	1266.90			

* Denotes a statistically significant P-value.

Figure 2

MEANS of the CABS-SV Across Groups

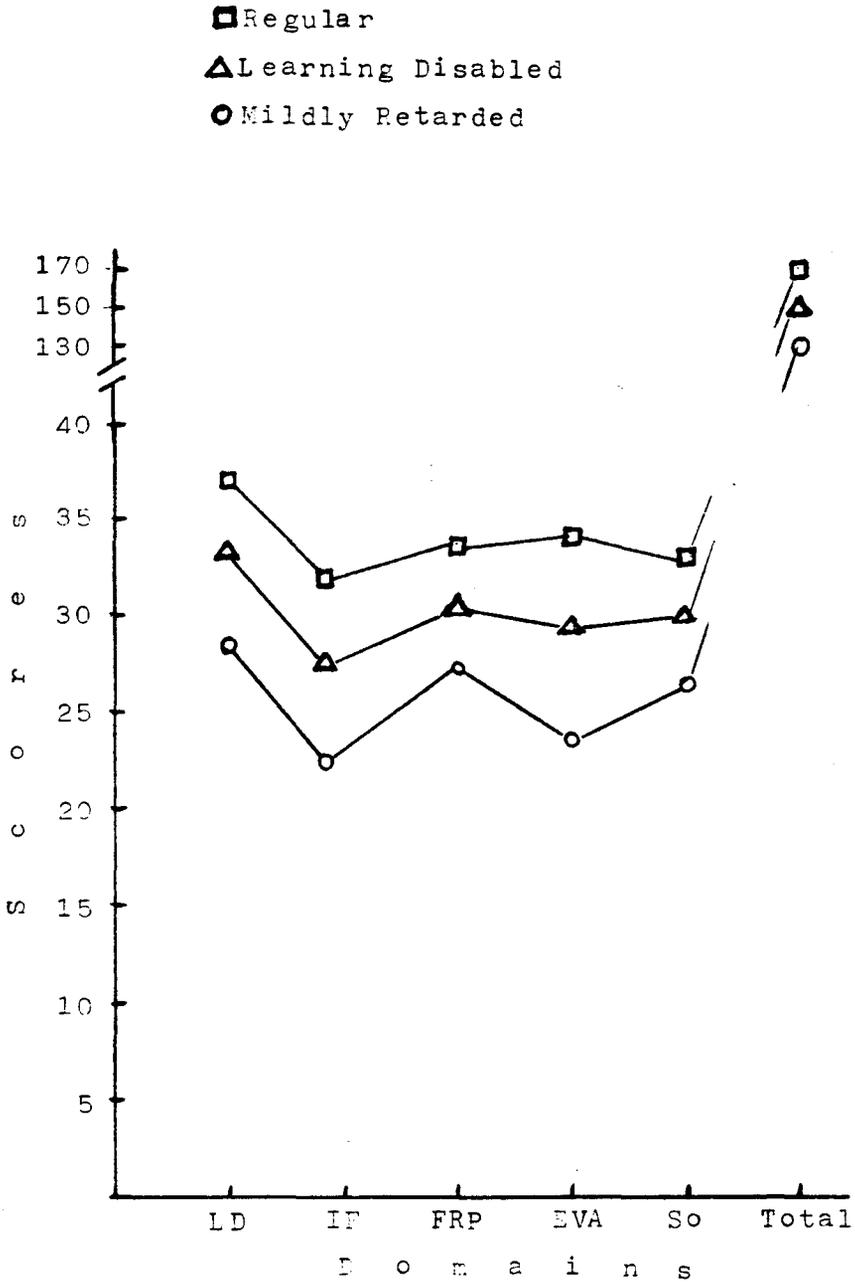


Table 5
 Summary Table of the
 DUNCAN'S, TUKEY'S, and SCHEFFE'S TEST ANALYSIS OF VARIANCE
 for the CABS-SV Total and Domain Scores Across Groups

=====			
	Grouping*	Mean	N = 30
			Group

CABS-SV Total	A	170.30	Regular
	B	152.17	Learning Disabled
	C	129.47	Mildly Retarded
Language Development	A	37.10	Regular
	B	33.87	Learning Disabled
	C	28.83	Mildly Retarded
Independent Functioning	A	32.43	Regular
	B	27.93	Learning Disabled
	C	22.93	Mildly Retarded
Family Role Performance	A	33.60	Regular
	B	30.80	Learning Disabled
	C	27.50	Mildly Retarded
Economic Vocational Activity	A	34.10	Regular
	B	29.60	Learning Disabled
	C	24.13	Mildly Retarded
Socialization	A	33.07	Regular
	B	29.97	Learning Disabled
	C	26.07	Mildly Retarded

* Means with the same letters are not significantly different at $p < .05$.

Results Related to Null Hypothesis Two

To test null hypothesis two (there is no significant difference in the total and domain scores on the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One), across groups), the researcher performed an ANOVA test to determine the significance of the differences between the total mean scores, and between the domain mean scores of the three groups. These means appeared to be significantly different across groups with $F = 167.84/66.55$; $df = 2,87$; at $p < .0001$ level (see Tables 3 and 6, and Figure 3 for details). In addition, the investigator conducted a Duncan's Test, a Tukey's Test, and a Scheffe's Test with the alpha level set at $p < .05$. Once again, the results of these tests indicated that children in the three comparison groups (regular, learning disabled, and mildly retarded) performed significantly different on the total and domain scores of the Adaptive Behavior Scale-School Edition Part One, (see Table 7 for details). Therefore, the results reported above indicate the rejection of null hypothesis two related to no differences in the total and domain scores across groups.

Results Related to Null Hypothesis Three

In order to test null hypothesis three (there is no significant relationship between the total and domain scores on the Children's Adaptive Behavior Scale-Spanish Version (CABS-SV) and the total and domain

Table 6

ANOVA SUMMARY TABLE for the ABS-SE Part One Scores

Across Regular, Learning Disabled, and Mildly Retarded groups.

Source	df	SS	MS	F	P

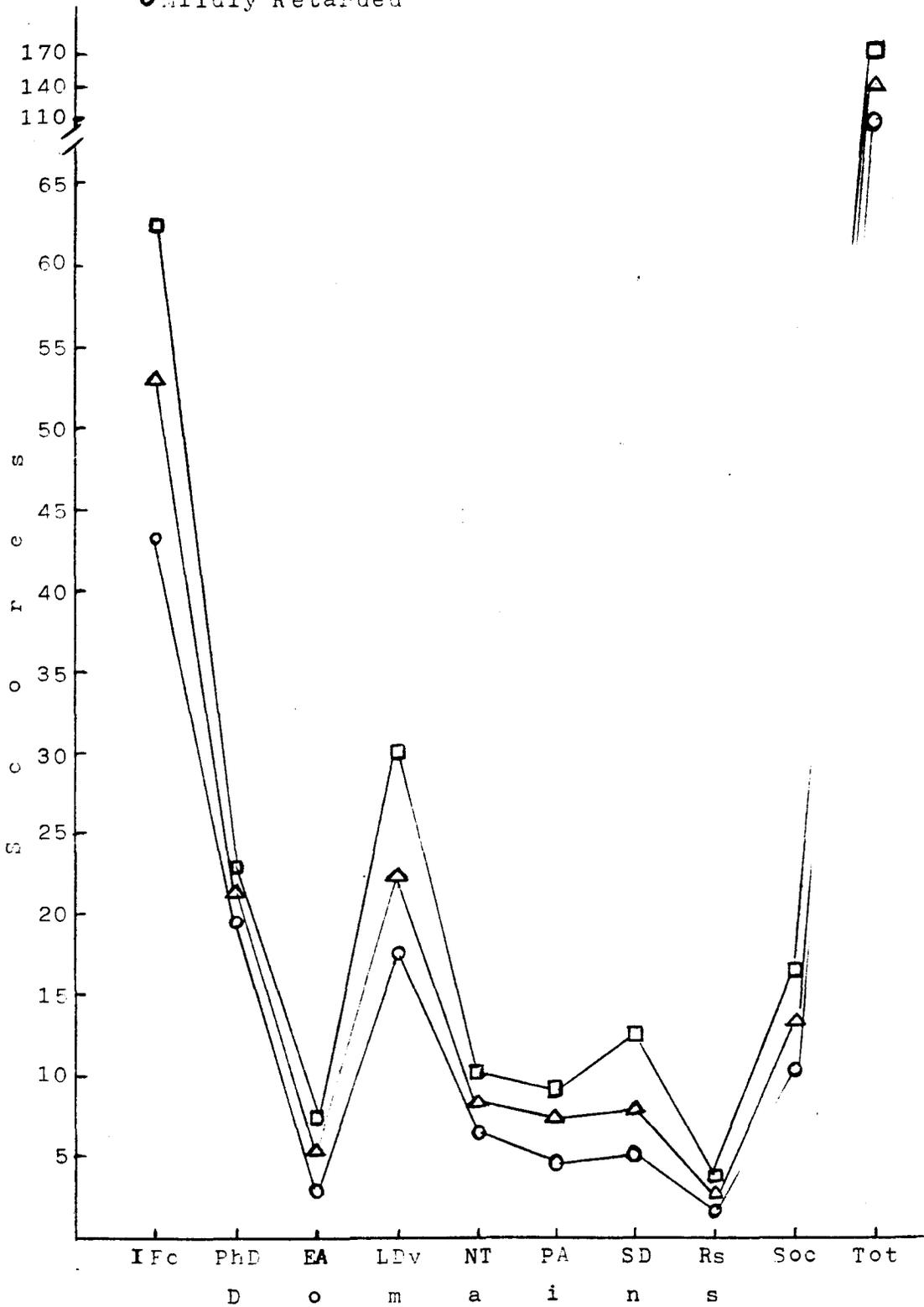
ABS-SE Part I Total					
Model	2	59967.22	29983.61	167.84	.0001*
Error	87	15542.33	178.65		
Total	89	75509.55			
Independent Functioning					
Model	2	5684.29	2842.14	109.81	.0001*
Error	87	2251.67	25.88		
Total	89	7935.95			
Physical Development					
Model	2	141.27	70.63	66.55	.0001*
Error	87	92.33	1.06		
Total	89	233.60			
Economic Activity					
Model	2	286.47	143.23	107.03	.0001*
Error	87	116.43	1.34		
Total	89	402.90			
Language Development					
Model	2	2400.07	1200.03	183.02	.0001*
Error	87	570.43	6.56		
Total	89	2970.50			
Numbers and Time					
Model	2	232.20	116.10	81.26	.0001*
Error	87	124.30	1.43		
Total	89	356.50			
Prevocational Activity					
Model	2	265.40	132.70	117.09	.0001*
Error	87	98.60	1.13		
Total	89	364.00			
Self-Direction					
Model	2	855.62	427.81	139.75	.0001*
Error	87	266.33	3.06		
Total	89	1121.95			
Responsibility					
Model	2	56.15	28.08	89.15	.0001*
Error	87	27.40	0.31		
Total	89	83.55			
Socialization					
Model	2	565.07	282.53	90.42	.0001*
Error	87	271.83	3.12		
Total	89	836.90			

* $p < .0001$

Figure 3

MEANS of the ABS-SE Part One Across Groups

- Regular
- ▲ Learning Disabled
- Mildly Retarded



Summary Table of the
DUNCAN'S, TUKEY'S, and SCHEFFE'S TEST ANALYSIS OF VARIANCE
for the ABS-SE Part One Total and Domain Scores Across Groups

=====

	Grouping*	Mean	N = 30	Group
ABS-SE part I Total	A	175.17		Regular
	B	141.17		Learning Disabled
	C	112.00		Mildly Retarded
Independent Functioning	A	62.77		Regular
	B	53.00		Learning Disabled
	C	43.30		Mildly Retarded
Physical Development	A	22.90		Regular
	B	21.47		Learning Disabled
	C	19.83		Mildly Retarded
Economic Activity	A	7.43		Regular
	B	5.40		Learning Disabled
	C	3.07		Mildly Retarded
Language Development	A	30.20		Regular
	B	22.67		Learning Disabled
	C	17.63		Mildly Retarded
Numbers and Time	A	10.27		Regular
	B	7.87		Learning Disabled
	C	6.37		Mildly Retarded
Prevocational Activity	A	8.83		Regular
	B	6.53		Learning Disabled
	C	4.63		Mildly Retarded
Self-Direction	A	12.50		Regular
	B	8.27		Learning Disabled
	C	4.97		Mildly Retarded
Responsibility	A	3.77		Regular
	B	2.73		Learning Disabled
	C	1.83		Mildly Retarded
Socialization	A	16.50		Regular
	B	13.23		Learning Disabled
	C	10.37		Mildly Retarded

* Means with the same letters are not significantly different at $p < .05$.

scores on the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One), in the regular group), the investigator computed correlation coefficients between the total and domain mean scores of the two tests in order to determine the relationship and significance between them. The total mean score (170.30) of the CABS-SV appeared to be significantly correlated with the total mean score (175.17) of the ABS-SE Part One at the $p < .0001$ level of significance. These findings supported the rejection of the null hypothesis related to finding no relationship between total mean scores across instruments in the regular group.

The total mean score of the CABS-SV appeared to be significantly correlated with the Independent Functioning, Physical Development, Language Development, Numbers and Time, Self-Determination, and Socialization domains of the ABS-SE but not significantly correlated with Economic Activity, Prevocational Activity, and Responsibility. The total mean score of the ABS-SE correlated significantly with the Language Development, Independent Functioning, and Economic Vocational Activity domains of the CABS-SV, but did not correlate significantly with Family Role Performance and Socialization. The results of the comparative correlational analysis among domain scores indicated that 31 of the 45 correlation coefficients were not significantly correlated and 14 were significantly correlated. Consequently, the null hypothesis related to finding no relationship between the total scores and the domain scores, and between the domain scores in the regular group was only partially rejected. It should be noted that the Family Role Performance and Socialization domains of the CABS-SV did not correlate significantly

with any of the domains of the ABS-SE Part One. The Responsibility domain score of the ABS-SE did not correlate significantly with any domain score of the CABS-SV. Table 8 presents a summary of all correlations and their corresponding level of significance. From that which is reported above, the correlational results of the analysis appear to indicate that the scales correlate less in the regular group than in the other groups, (especially in the mildly retarded), which suggest that the scales are more oriented toward the mildly retarded than toward the regular children.

Results Related to Null Hypothesis Four

To test null hypothesis four (there is no significant relationship between the total and domain scores on the Children's Adaptive Behavior Scale-Spanish Version (CABS-SV) and the total and domain scores on the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One), in the learning disabled group), the researcher performed a Pearson product-moment correlational analysis between the total and domain mean scores of the two tests in order to determine the relationship and significance among them. The total mean score (152.17) of the CABS-SV significantly correlated with the total mean score (141.17) of the ABS-SE Part One at the $p < .0001$ level of significance. In light of these findings, the investigator rejected the null hypothesis related to finding no relationship between total mean scores on the two tests in the learning disabled group.

Table 8
CORRELATION COEFFICIENTS
Among the CABS-SV and ABS-SE Part One Scores +
for the Regular Group

	LD	IF	FRP	EVA	So	CABS-SV Total
IFc	.48**	.42*	.33	.52**	.27	.55**
PhD	.50**	.33	.20	.34	.04	.38*
EA	.51**	.23	.16	.11	.07	.27
LDv	.43*	.50**	.22	.53**	.33	.56**
NT	.34	.44*	.19	.52**	.35	.52**
PA	.23	.16	.05	.34	.29	.29
SD	.21	.28	.18	.38*	.24	.36*
Rs	-.05	-.27	-.05	-.09	.11	-.12
Sc	.40*	.50*	.25	.55**	.32	.57**
Total ABS-SE	.48**	.45**	.27	.54**	.32	.57**

+ The names of the specific domains are given in the text.

* $p < .05$. ** $p < .01$.

With 28 df, the correlation coefficient:

- must be larger than .36 to be significant at the .05 level
- must be larger than .46 to be significant at the .01 level

The total mean score of the CABS-SV appeared to be significantly correlated with the Independent Functioning, Economic Activity, Language Development, Numbers and Time, and Socialization domain scores of the ABS-SE but did not significantly correlate with the Physical Development, Prevocational Activity, Self-Determination, and Responsibility domain scores. The total mean score of the ABS-SE Part One, is significantly correlated with all the CABS-SV domain scores except Economic Vocational Activity. The results of the intercorrelational analysis among domain scores showed that 16 of the 45 correlation coefficients were significantly correlated and 29 were not significantly correlated. Therefore, the null hypothesis related to finding no significant relationship between total scores and domain scores, and between domain scores in the learning disabled group was only partially rejected. (The Physical Development domain of ABS-SE did not correlate significantly with any of the domains of the CABS-SV. The Language Development domain of the CABS-SV was the one which correlated with more domains of the ABS-SE Part One.) Table 9 presents a summary of all correlations and significance levels. From that which is reported above, it appears that the Language Development domain on both scales has the highest number of intercorrelations. The two scales, in the learning disabled group, correlated similarly and closer to the regular group than to the mildly retarded group.

Table 9
CORRELATION COEFFICIENTS
Among the CABS-SV and ABS-SE Part One Scores +
for the Learning Disabled Group

	LD	IF	FRP	EVA	So	Total CABS-SV
IFc	.46**	.34	.35	.29	.39*	.47**
PhD	.33	.21	.30	.19	.16	.31
EA	.43**	.38*	.28	.52**	.15	.47**
LDv	.46**	.39*	.36*	.16	.25	.42*
NT	.54**	.61**	.37*	.26	.29	.55**
PA	.37*	.21	.20	.05	.17	.26
SD	.41*	.26	.28	.13	.25	.34
Rs	.38*	.15	.05	.16	.34	.28
Sc	.41*	.25	.35	.16	.58**	.44*
Total ABS-SE	.52**	.39*	.38*	.27	.37*	.49**

+ The names of specific domains are given in the text.

* $p < .05$. ** $p < .01$.

With 28 df, the correlation coefficient:

- must be larger than .36 to be significant at the .05 level
- must be larger than .46 to be significant at the .01 level

Results Related to Null Hypothesis Five

In order to test null hypothesis five (there is no significant relationship between the total and domain scores on the Children's Adaptive Behavior Scale-Spanish Version (CABS-SV) and the total and domain score on the AAMD Adaptive Behavior Scale-School Edition (ABS-SE, Part One), in the mildly retarded group), the investigator performed a correlational analysis among the total and domain mean scores of the two instruments in order to estimate the relationship and significance between them. The total mean score (129.47) of the CABS-SV presented a significant correlation with the total mean score (112.00) of the ABS-SE Part One at $p < .0001$ level. According to these findings, the investigator rejected the null hypothesis related to no relationship between total mean scores on the two tests in the mildly retarded group.

The total mean score of the CABS-SV appeared to be significantly correlated with all but one (Responsibility) of the domain scores of the ABS-SE Part One. The total mean score of the ABS-SE Part One, significantly correlated with all the domains of the CABS-SV. The findings of the correlations among the domain scores indicated that 32 of the correlation coefficients were significantly correlated and 13 were not significantly correlated. Consequently, the null hypothesis related to no significant relationship between total and domain scores, and between domain scores in the mildly retarded group was only partially rejected. (Responsibility was the only domain which did not correlate significantly with any other domain.) Table 10 presents a summary of these correlations.

Table 10
CORRELATION COEFFICIENTS
Among the CABS-SV and ABS-SE Part One Scores +
for the Mildly Retarded Group

	LD	IF	FRP	EVA	So	Total CABS-SV
IFc	.55**	.61**	.54**	.45*	.52**	.64**
PhD	.48**	.43*	.32	.21	.40*	.44*
EA	.39*	.29	.34	.42*	.26	.41*
LDv	.50**	.27	.52**	.45*	.46**	.51**
NT	.62**	.62**	.74**	.57**	.58**	.74**
PA	.59**	.39*	.59**	.48**	.51**	.60**
SD	.44*	.46**	.40*	.23	.41*	.46**
Rs	.31	.03	.13	.34	.17	.23
Sc	.55**	.40*	.48**	.33	.50**	.53**
Total ABS-SE	.62**	.56**	.59**	.49**	.56**	.67**

+ The names of specific domains are given in the text.

* $p < .05$. ** $p < .01$.

With 28 df, the correlation coefficient:

- must be larger than .36 to be significant at the .05 level
- must be larger than .46 to be significant at the .01 level

Ancillary Results

In order to estimate the reliability (internal consistency) of the CABS-SV, the researcher calculated a Cronbach alpha coefficient for the total three group sample (N = 90). The obtained result was $\alpha = .941$ which appears to indicate a high degree of reliability. The alpha reliability coefficients obtained for the separate comparing groups were as follows: for the regular group, $\alpha = .777$; for the learning disabled group, $\alpha = .827$; and for the mildly retarded group, $\alpha = .888$. It should be noted that the estimation of reliability for individual groups was not considered to be appropriate due to the small number $N = 30$ in each.

A P11 Factor Analysis of the CABS-SV domains was also conducted. Using the principal factor method resulted in finding only one single factor structure with an eigen value greater than 1.0. (Varimax no iteration eigen > 1 rule no rotation). Table 11 presents a summary table of the intercorrelations among the domain scores which appeared to be extremely high. These high intercorrelations and the findings of a single factor structure suggest that a single domain of behavior is measured by the scale and that the individual domains do not contribute significantly to the overall differentiation of other behaviors.

Table 11

INTERCORRELATION MATRIX
of the PI1 Factor Analysis Results
for the CABS-SV Domain Scores

	LD	IF	FRP	EVA	So
LD					
IF	.83				
FRP	.77	.78			
EVA	.79	.78	.76		
So	.79	.75	.75	.78	

EIGENVALUES OF THE CORRELATION MATRIX

	1	2	3	4	5
Eigenvalue	4.126349	.264402	.243164	.213027	0.153058
Difference	3.861946	.021238	.030137	.059968	
Proportion	0.825300	.052900	.048600	.042600	0.030600
Cumulative	0.825300	.878200	.926800	.969400	1.000000

FACTOR PATTERN

	<u>Factor 1</u>
Language Development	.92492
Independent Functioning	.91476
Economic Vocational Activity	.90712
Socialization	.89879
Family Role Performance	.89632

Final Communality Estimates: Total = 4.126349

A PI1 Factor Analysis of the ABS-SE Part One domains was performed as well. The results of this procedure indicated the existence of only one single factor structure with an eigen value greater than 1.0. (Varimax no iteration eigen > 1 rule no rotation). Table 12 presents the high intercorrelations among the domain scores. Based on these findings, it appears reasonable to conclude that the ABS-SE Part One represents a single factor structure. The analysis of the domain scores as a group did indicate a social desirability dimension which was related to general personal independence. However, there is no evidence in the present study (also reported by others: Katz-Garris, 1980; Spreat, 1982) to support the notion that the subscales measure different domains of adaptive behavior.

Finally, in order to compare the total and domain mean scores on the CABS-SV of the mildly retarded group (age 8, 9, 10) with the total and domain mean scores on the CABS (Norms based on South Carolina and Georgia sample, age 8, 9, 10), (Richmond and Kicklighter, 1980, p. 8), three t-tests were performed. It should be noted that the Hispanic retarded group by age is very small (N = 10) and the American group is N = 50. Based on the findings, no significant differences were found between the eight year olds and the nine year olds on the total and domain mean scores. The results related to the differences between the ten year olds indicated that there were no significant differences on the total and Language Development domain.

Table 12

INTERCORRELATION MATRIX
of the P11 Factor Analysis Results
for the ABS-SE Part One Scores

	IFc	PhD	EA	LDv	NT	PA	SD	Rs	Sc
IFc									
PhD	.90								
EA	.89	.87							
LDv	.92	.86	.90						
NT	.86	.81	.82	.88					
PA	.88	.81	.88	.92	.84				
SD	.89	.84	.87	.93	.82	.93			
Rs	.80	.76	.83	.85	.71	.87	.89		
Sc	.91	.84	.82	.90	.83	.86	.89	.81	

EIGENVALUES OF THE CORRELATION MATRIX

	1	2	3	4	5	6	7	8	9
Eigv	7.911	.336	.217	.177	.096	.087	.068	.058	0.048
Diff	7.574	.119	.041	.080	.009	.019	.010	.010	
Prop	0.879	.037	.024	.020	.011	.010	.008	.006	0.005
Cum	0.879	.916	.940	.960	.976	.980	.988	.995	1.000

FACTOR PATTERN

	<u>Factor 1</u>
Language Development	.97179
Self-Direction	.96094
Independent Functioning	.95851
Prevocational Activity	.95280
Economic Activity	.93878
Socialization	.93657
Physical Development	.91686
Numbers and Time	.90237
Responsibility	.89612

Final Communality Estimates: Total = 7.910761

However, there were significant differences between Independent Functioning, Family Role Performance, Economic Vocational Activity, and Socialization domains ($p < .05$) across the two ten year old groups. Table 13 presents the means, standard deviations and T-Values related to this comparison (See Figure 4 for details).

MEANS, STANDARD DEVIATIONS AND T-VALUES

 for the
 CABS-SV₁ and CABS(Norms)₂
 Mildly Retarded Group

----- AGE = 8 Yr. -----

Domain	M ₁	M ₂	SD ₁	SD ₂	N ₁	N ₂	T-Value
LD	24.5	27.9	4.1	4.6	10	50	.4777
IF	18.5	19.4	3.3	4.6	10	50	.1304
FRP	24.4	24.7	4.0	3.5	10	50	.0671
EVA	20.4	24.9	3.3	3.2	10	50	1.2559
So	24.2	23.0	3.0	3.6	10	50	-.2787
Total	112.0	119.9	14.0	16.0	10	50	.9208

----- AGE = 9 Yr. -----

Domain	M ₁	M ₂	SD ₁	SD ₂	N ₁	N ₂	T-Value
LD	30.7	30.0	3.7	4.2	10	50	-.1183
IF	25.0	23.4	4.4	5.2	10	50	-.1776
FRP	28.6	27.4	2.5	5.3	10	50	-.1336
EVA	24.8	28.6	3.7	3.0	10	50	1.1109
So	26.2	31.2	2.3	4.9	10	50	.6511
Total	135.3	140.6	11.5	22.7	10	50	.0321

----- AGE = 10 Yr. -----

Domain	M ₁	M ₂	SD ₁	SD ₂	N ₁	N ₂	T-Value
LD	31.3	35.2	4.0	1.5	10	50	1.6972
IF	25.3	31.6	4.1	2.5	10	50	2.0746 *
FRP	29.5	34.7	2.8	1.9	10	50	3.3115 *
EVA	27.2	32.6	3.3	2.1	10	50	2.6412 *
So	27.8	33.6	1.9	1.4	10	50	7.2950 *
Total	141.1	167.7	12.4	15.3	10	50	.3236

*With 50 df, significant difference: $p < .05$: 2.00
 $p < .01$: 2.66

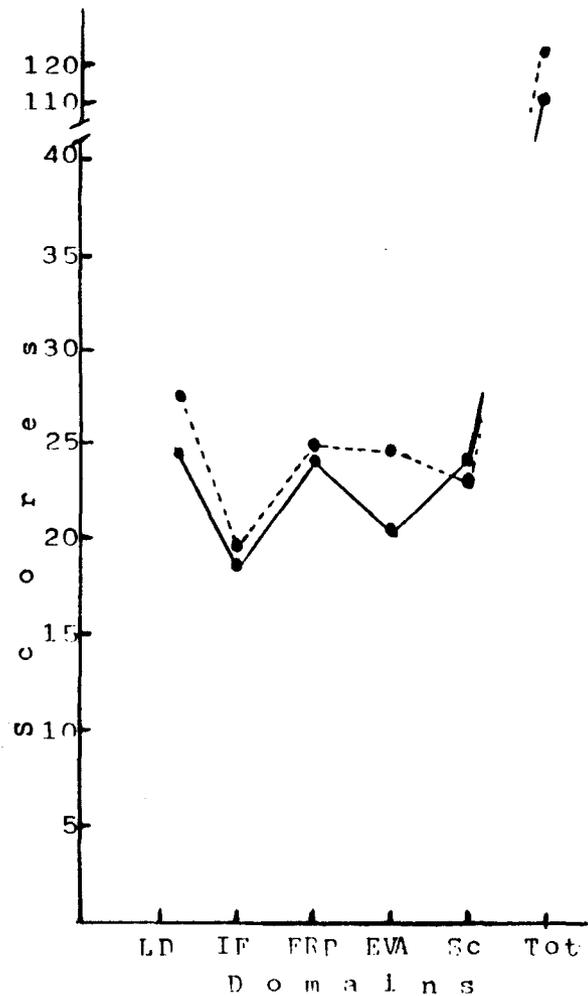
Figure 4

SUMMARY COMPARISON BETWEEN THE MEANS OF CABS-SV and CABS (Am.Norms)

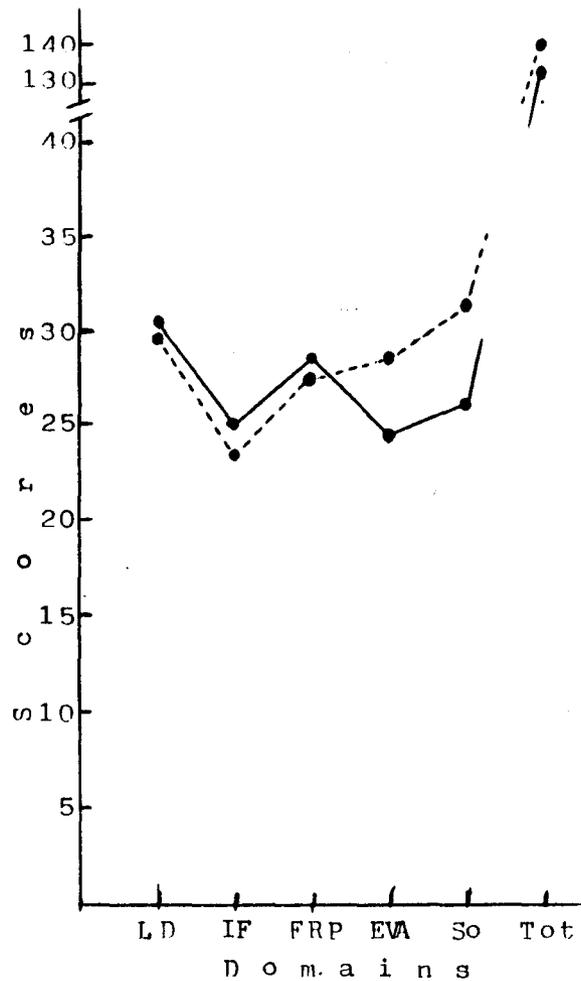
ACROSS AGES

— CABS-SV - - - - CABS (A m. Norms)

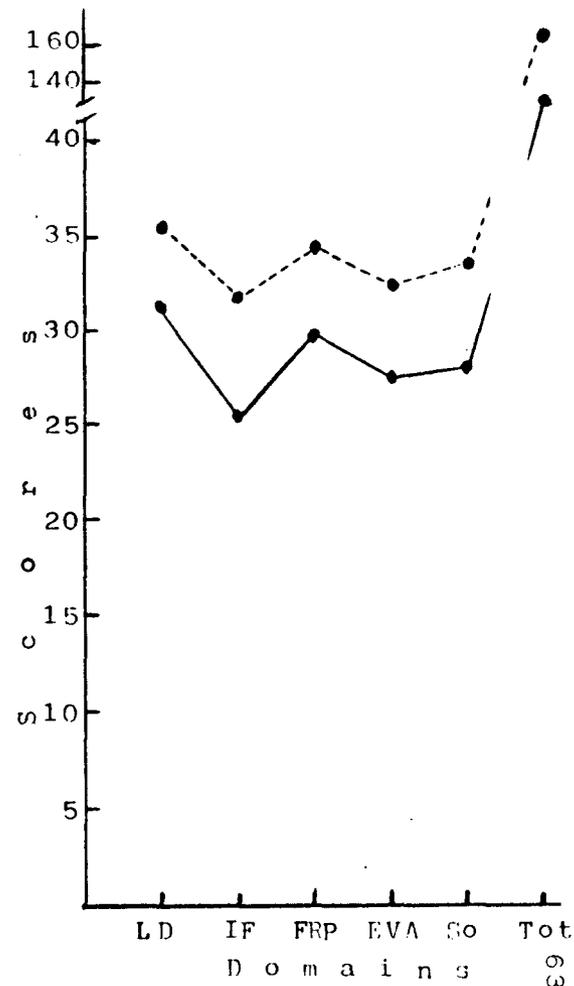
Eight year olds



Nine year olds



Ten year olds



CHAPTER V

DISCUSSION

The results of this investigation are discussed in relation to each of the null hypotheses tested and the ancillary findings. In addition, a discussion is presented focusing on the relationship between intelligence and adaptive behavior, the history of the development of the CABS, and perspectives for future investigations.

Specifically, a discussion is presented related to the differences in adaptive behavior scores across the three groups (regular, learning disabled, and mildly retarded) on the CABS-SV total and domain scores; the differences across the same groups on the ABS-SE Part One total and domain scores; the correlation between the total and domain scores on the two adaptive behavior scales (CABS-SV and ABS-SE Part One) in each of the educational groups. A discussion of the ancillary finding related to the reliability of the CABS-SV, the factor analysis of the CABS-SV and the ABS-SE Part One, and the comparison by ages (8, 9, and 10) between the CABS-SV results and the CABS norms (South Carolina and Georgia sample) is also presented. One of the main substantive issues related to the findings of the present investigation is the general problem of determining the nature of relationship between intelligence and adaptive behavior. In other words, which kind of intelligence is

included in an adaptive behavior scale? What is understood by social intelligence or competence? The conception of intelligence appears to vary greatly from one author to another, and the adaptive behavior scale descriptors differ as well. For this reason, a brief discussion of the history related to the development of the CABS is presented in order to more completely articulate its conception and direction in measuring adaptive behavior characteristics. Finally, the contribution of the present study as well as suggestions for future investigations in this area (specially with minority groups) is presented.

Performance Differences Across the Educational Groups on the CABS-SV and ABS-SE Part One

On the CABS-SV, children in the three groups (regular, learning disabled, mildly retarded) performed significantly differently on the total score and each of the domain scores. The mildly retarded group exhibited greater variability on all scores than the other groups. The learning disabled group performed almost midway between the other two groups (regular and mildly retarded), but somewhat closer to the regular group. Some differences between groups were expected but nonsignificant differences between the regular and learning disabled groups were expected. However, the findings indicated that the learning disabled group performed significantly differently from the regular group as well. In some aspects, the general performance of the test (CABS) appeared to be most like that of an intelligence test. The learning

disabled group appeared to perform like a slow learner group. There are at least two possible explanations related to this phenomenon. First, most children with learning problems have greater difficulty in verbal areas, and the CABS is indeed heavily loaded with verbal items to the point that in many instances it could be called a verbal comprehension test. Second, some of the students who participate in classes for the learning disabled pupils are children with weaknesses and relative strengths whose general intellectual functioning is within a rather slower than average range. In other words, these children are most likely slow learners placed in programs for the learning disabled because of lack of other alternatives and appropriate programs for the slow learning children. Unfortunately, as a limitation of this study, this particular sample of Hispanic children with learning problems taken from classes for the learning disabled included some of those with rather slow learning characteristics.

On the ABS-SE Part One, the same pattern of results reported above related to the performance differences across groups on the CABS-SV occurred. Children in the three groups (regular, learning disabled, mildly retarded) performed significantly differently from each other across groups in the ABS-SE Part One. Children in the learning disabled group once again scored midway between the regular group and the mildly retarded group. Scores were closer to the regular group in Independent Functioning and Physical Development domains. The Language Development scores were closer to the mildly retarded group. In general, scores in the learning disabled group exhibited more variability than scores in

the other groups. Once again, the learning disabled group appeared to perform like a slow learning group. The explanation offered in this case is similar to that which was offered to explain the performance differences across the learning disabled group on the CABS-SV. First, the learning disabled group appears to have included more pupils with slow learning than with truly learning disabled characteristics. Second, the research findings related to performance on Part One of the ABS (Bayley and Richmond (1979), Katz-Garris (1980), Roszkowski and Bean (1980)), indicated a high correlation with IQ tests results in at least some of the domains examined. (See the following sections related to the discussion of the factor analysis of the ABS-SE Part One, the development of the CABS and the relationship between intelligence and adaptive behavior, for additional commentary).

Therefore, the CABS and ABS-SE Part One appear to have a number of characteristics in common when applied to the mildly retarded group. The results reported here did indicate that the tests clearly discriminated between mildly retarded and regular children and probably the slow learners as well. However, the crucial question remains: Are the scales similar to intelligence tests? Do they really assess adaptive behavior? The last sections of this chapter address these questions in more detail.

A Discussion of the Relationship between the CABS-SV and the ABS-SE Part One Scores in Each of the Groups

Null hypotheses three, four, and five tested the relationship among the scores (total and domains) on the CABS-SV and ABS-SE Part One, in each of the groups (regular, learning disabled, mildly retarded). The results (see Tables 8, 9, and 10 for details) indicated the following: the Responsibility domain score of the ABS-SE was the weakest correlate in regard to the other domain scores in the regular group (only correlated once in the learning disabled group with the Language Development domain of the CABS) and the Responsibility domain score correlated negatively with other domain scores. This domain score (Responsibility) could be subject to reliability problems since the range of the scores is 0-6 and it would be very unlikely that any child referred for a psychological diagnostic evaluation could get the top score. It should be noted that the maximum possible score on each of the domains of the ABS-SE Part One varies greatly (6 - 11 - 17 - 24 - 39 - 83) in contrast with the CABS in which the maximum possible score in each domains is 40.

As was indicated in chapter IV (Results) in the regular group, Family Role Performance and Socialization domain scores did not correlate with any of the domain scores of the ABS-SE Part One; and the Responsibility and Prevocational Activity scores of the ABS-SE Part One did not correlate with any of the domain scores of the CABS-SV. The most significantly correlated of all the domain scores in all the groups and

on both tests was the Language Development domain score. Once again, it should be noted that verbal aspects are emphasized especially on the CABS.

As can be seen from the sixty possible intercorrelations reported in Tables 14 and 15, the intercorrelations of the total and domain scores of the CABS-SV and ABS-SE Part One across groups indicated that the mildly retarded group scores were the most highly correlated (.74) consisting of the highest number of significant intercorrelations (46 of 60 possible, which is the 76%). The learning disabled group scores reached a maximum correlation of .61 with and a total of 26 significant intercorrelations (43%). Finally, the regular group scores reached a high correlation of .57 and a total of 24 significant intercorrelations (40%). Therefore, this pattern of interrelationships indicates that performance on the CABS and ABS-SE Part One appears to share many common characteristics related to the performance of the mildly retarded group. In fact, a great difference was established between the mildly retarded group and the other two groups (regular and learning disabled), and the difference between the regular and the learning disabled groups was only minimal.

Table 14

SIGNIFICANT CORRELATION COEFFICIENTS ACROSS GROUPS

CHILDREN'S ADAPTIVE BEHAVIOR SCALE - SPANISH VERSION

		Language Development			Independent Functioning		Family Role Performance		Economic Vocational Activity		Socialization		T o t a l				
ADAPTIVE BEHAVIOR SCALE-SCHOOL EDITION Part One	Independent Functioning	x	o	+	x	+		+	x	+		o	+	x	o	+	
	Physical Development	x		+		+						+		x		+	
	Economic Activity	x	o	+		o				o	+				o	+	
	Language Development	x	o	+	x	o		o	+	x	+		+	x	o	+	
	Numbers and Time		o	+	x	o	+		o	+	x	+		+	x	o	+
	Prevocational Activity		o	+		+		+		+		+				+	
	Self-Direction		o	+		+		+	x			+		x		+	
	Responsibility		o														
	Socialization	x	o	+	x	+		+	x			o	+	x	o	+	
	T o t a l	x	o	+	x	o	+		o	+	x	+		o	+	x	o

x = Regular Group

o = Learning Disabled Group

+ = Mildly Retarded Group

Table 15

TOTAL PERCENTAGE OF SIGNIFICANT CORRELATIONS ACROSS GROUPS*

on the

CABS-SV and ABS-SE Part I

(60 possible intercorrelations in each group)

	Range of Significant Correlations -----	Level of Significance		Significant Correlations		No Significant Correlations	
		-----		-----		-----	
		.05	.01	Tot	%	Tot	%
<u>Regular Group</u>	.36 to .57	8	16	24 =	40%	36 =	60%
<u>Learning Disabled Group</u>	.36 to .61	15	11	26 =	43%	34 =	57%
<u>Mildly Retarded Group</u>	.39 to .74	13	33	46 =	76%	14 =	23%

* See Tables 8, 9, 10, and 14 for details and better understanding of this table.

Discussion of Ancillary Findings

The internal consistency reliability Cronbach alpha coefficient for the total group (N = 90) yielded alpha = .94 and for the mildly retarded group, alpha = .88. These results provide further support for the high reliability coefficient of .93 for the total CABS score reported by Richmond and Kicklighter (1980) in the CABS Manual (p. 10). Thus, scores on the CABS-SV appear reasonably stable and consistent.

Apparently no published research using factor analysis of the CABS domain scores has been done. The factor analytic findings reported here indicate a single factor structure on the CABS-SV domains suggesting that a single domain of behavior is measured by the scale and that the individual domains do not contribute significantly to the differentiation of other behavioral aspects. This finding indicates that once one domain is given, little if any additional information is gained by administering the other domains. Therefore, significant overlap in the item content is suspected. This also probably explains the high correlations obtained between the domains. All of these findings lead one to question the content and construct validity of the scale. It appears that the domain scores are not necessarily attributable to the measurement properties of adaptive behavior. The domains, indeed, do not appear to measure what they are alleged to measure individually. That is to say that there is only one general factor, not many factors. The Language Development domain contributed the highest .92 factor loading. The whole scale appears loaded with verbal items probably due to the

fact that the test is applied directly to the child and that the authors did not find other way to avoid or minimize the problem. This general factor, in some instances, appears to be a verbal comprehension factor containing varied questions related to assessing intellectual functioning, language ability, and general social functioning.

An important question related to the validity of the CABS has to do with at least two important points. First, are the aspects measured by the scale considered adaptive behavior characteristics in their entirety? Second, did the authors of the scale develop an instrument (called adaptive behavior) to discriminate between retarded, slow learning, and regular children? The answers to these questions are basic for an accurate judgment concerning the overall validity of the CABS. (The following sections discussing the history of the development of the CABS and the relationship between intelligence and adaptive behavior will hopefully clarify some of these issues.) In some aspects, the basic problem appears to be theoretical and semantic. From the results reported in the present study it appears that the CABS validity is at least partially questionable. The name of the scale (adaptive behavior) does not appear to fit the content of the items. The five domains do not appear to measure independent aspects of behavior and the whole scale emphasizes verbal comprehension.

A Discussion of the Factor Analysis of the ABS-SE Part One Domain Scores. Since the publication of the ABS several factor analytic stud-

ies have been done by different investigators with different subject populations. Coulter and Morrow (1978) mention some of these investigations. Guarnaccia (1976), Lambert and Nicoll (1976), Nihira (1969 - 1976), Thomas (1974), Tomiyasu (1974 - 1976), have found on the ABS Part I, two, three or four factors. Spreat (1982) found two factors. In the factor analysis of Nihira (1976) in which he identified three factors, each factor was differentially related to IQ. The correlations were as follows: .45 for Personal Self-Sufficiency, .68 for Community Self-Sufficiency, and .54 for Personal-Social Responsibility. Roszkowski and Bean (1980, p. 453), mention that Christian and Malone (1973) correlated the ABS Part One total score with IQ and found a correlation of .75. Katz-Garris (1980) examined the ABS Part One to determine whether or not the instrument has two or more factors as previously reported. He concluded that Part One of the ABS measures a single factor which accounts for 91% of the total variance. However, results related to the new standardization of the ABS-SE indicated three factors in Part One (Lambert and Windmiller, 1981).

According to Arndt (1981), recent evidence has suggested that Part One of the ABS might be more appropriately indexed by a general score. Roszkowski and Bean (1980, p. 452) discuss unshared variance as follows:

In general, the adaptive behaviors measured by Part I of the ABS showed relatively large associations with IQ. ABS domain scores that correlated .70 or above with IQ included Independent Functioning, Economic Activity, Language Development, Numbers and Time, and Domestic Activity.

The findings of the present study support those studies which found that the ABS Part One has only one factor. In the present study, the

Language Development domain contributed the highest factor loading .97. The reported relatively high correlations between the ABS Part One with IQ may explain the high correlations with the CABS domain scores and the peculiar performance of the Hispanic sample on the test. All the above considerations and findings, specifically the fact of one factor instead of nine domain factors measuring independent behaviors and the relatively high correlations with IQ in at least some of the domains, render somewhat questionable the validity of the ABS-SE Part One as a "real" measure of adaptive behavior.

A Comparison between the CABS-SV results and the CABS norms (South Carolina and Georgia sample): The results of this comparison by ages (8, 9, and 10), indicated no significant differences in performance between the eight and nine year olds. For the ten year olds, however, there were significant performance differences in Independent Functioning, Family Role Performance, Economic Vocational Activity, and Socialization. However, significant differences were not found in Language Development and in the total domain score. All of these findings should be interpreted with caution because the Hispanic sample was very small (only 10 subjects at each age level). Nevertheless, with younger children (8, 9) the norms are closely similar, but with older children (10) the norms are different. Consequently, the interpretation of the results should be done cautiously. From this researcher's perspective and in relation to the development and evaluation of adaptive behavior scales for assessing children of any ethnic condition a more in-depth research project focussing on the establishment of psychometric criteria

and maintaining the direct involment of the child should be conducted.

A Discussion of the Relationship between Intelligence and Adaptive Behavior

A crucial point in many investigations is the precise definition of terms. In this respect, the discrepancy and controversy in the psychological arena in defining "intelligence" is well known. Consensus among psychologists has not been reached yet. Consequently, in investigating relationships and differences between intelligence and adaptive behavior, the controversy and discrepancy is even more acute. Oakland and Goldwater (1979, p. 145) say: "The meaning and use of the construct of adaptive behavior is far from clear. First, there is no single concept of adaptive behavior just as there is no single concept of intelligence."

Reschly (1982) comments that a comprehensive review of the literature on social competence (forerunner of adaptive behavior) and intelligence reveals a great deal of variability among researchers (Leland, Nihira, Richmond, Katz-Garris, Oakland, and many others.) Although broadened diagnostic criteria in relation to mental retardation were introduced in the early 1960s, Roszkowski and Bean (1980) mention that Clausen (1966, 1967, 1972) questions whether, for purpose of diagnosis, intelligence and adaptive behavior need to be considered as two distinct constructs.

For Clausen "marked differences between social competence and intelligence are the exception" (Roszkowski and Bean, 1980, p. 452). He maintains that a resolution of the question regarding the uniqueness of adaptive behavior must rest on an empirical analysis of the association between available measures of the two constructs, intelligence and adaptive behavior. Coulter and Morrow (1978) who have studied adaptive behavior very extensively indicate that there are areas of overlap between intelligence and adaptive behavior. According to them (p. 218): "What is the difference between adaptive behavior and intelligence in the early years (0 to 5 years)? Considerable overlap and some congruence is apparent." However, they try to distinguish between adaptive behavior and intelligence (p. 58):

Assessment of adaptive behavior provides information about the community's judgment of an individual's degree of independence. The assessment of intelligence depends on a person's ability to perform a sample of cognitive, verbal, reasoning, and performance tasks.

Finally, Coulter (1980, p. 68), talking about misconceptions regarding adaptive behavior, states: "A misconception is the belief that adaptive behavior is similar to intelligence in that there is a simple general factor to be measured."

For Oakland (1983), intellectual abilities and adaptive behavior are unrelated to each other. According to him there is an absence of studies examining relationships between adaptive behavior, intelligence, and school achievements. The joint use of adaptive behavior and IQ should be independent and should account for significant and different amounts of variance with respect to the criterion.

Lutey (1982) mentions the studies of Guidubaldi and Kehle (1979) who found relationships between early social and academic competencies to later achievement related behaviors. Spivack (1976) also found social problem solving to have little relationship to intelligence as traditionally measured, but a direct relationship of social problem solving and child adjustment was found.

According to Reschly (1980, 1982), the relationship between social competence and intelligence varies depending upon one's personal point of view. However, in most studies, correlations between social competence and IQ were from .40 to .70. These correlations, although substantial, indicate that adaptive behavior and intelligence were quite different for a good number of specialists. Interestingly, Reschly suggests that the adaptive behavior dimension for school age children be conceptualized as two separate components: Adaptive Behavior-School (AB-S) and Adaptive Behavior-Outside School (AB-OS). The AB-S component should reportedly involve performance in the public schools setting with primary emphasis on academic achievements in the classroom and the AB-OS component should reportedly include role performance in social systems outside the public school such as home, neighborhood, community. Finally, Reschly (1982, p. 234) suggested that classification and placement decisions with the mildly retarded should be based on information from both components of adaptive behavior (AB-S and AB-OS) and the dimension of intelligence (academic aptitude).

Thus, the controversy concerning the relationship between intelli-

gence and adaptive behavior is far from settled. However, a reasonable and sensible approach to the problem appears to call for development of a separate construct which includes both social competence and independence (called adaptive behavior) independent as much as possible from the other construct called intelligence or IQ. The line between these two somewhat related constructs is very difficult to determine at this time. Important aspects related to content validity, use of a third party respondent or direct application of the questions to the subject without emphasizing verbal comprehension elements, and many other points need further investigation.

Discussion of the History Related to the Development of the CABS

In order to more completely understand the structure of the CABS and to enable one to criticize it constructively, a brief discussion related to its history and development is presented here. By 1977, Bayley and Richmond (1979) were concerned about former investigations on the ABS by Engleman (1973) and Malone and Christian (1975) who obtained a .75 correlation between the ABS total score and IQ. Bayley and Richmond questioned the contribution of the ABS to the placement process because of its high correlation with IQ. The purpose of Bayley and Richmond's study was to investigate the performance of rural, southeastern children on Part One of the ABS. Scores on the WISC-R and the ABS Part One were obtained for 94 elementary school children. Some of the ABS scores differentiated among children classified as mildly retarded,

slow learners, or of average intelligence. Some of the domains of the ABS seemed to be of questionable validity and reliability and their study raised some questions about validity and reliability of ABS Part One. The results were inconsistent and two of the domains appeared particularly weak: The Responsibility domain (range scores 0-6) and Vocational Activity domain. They concluded that more information was needed on the conceptualization and measurement of adaptive behavior before educators could be expected to integrate those data meaningfully into the child's educational placement and program planning.

Mealor and Richmond in "Adaptive Behavior: Teachers and Parents Disagree" (1980), investigated the problem of possible "bias by the respondent" that occurs in relying on informed sources to report the child's adaptive behavior. Because the most typical informed sources for mildly retarded children are parents and teachers, this study compared the perceptions of these two groups regarding adaptive behavior of selected moderately or severely retarded children. Two instruments were selected (the ABS Part One and the Cain-Levine Social Competency Scale). Both a parent and a teacher completed the ABS and the Cain-Levine Scale. The findings were different when the teachers' ratings of children were compared to the parents' ratings. Findings from this study suggested a need to consider carefully the method of measurement of adaptive behavior. A score on adaptive behavior may differ significantly from depending on the respondent. The results of the study "Should the teacher or the parent complete an adaptive behavior scale?" (Mealor and Richmond, 1980, p. 388), clearly indicated a need for more precise

measures of adaptive behavior. Both parents and teachers may exhibit bias in their ratings.

Richmond and Horn (1980), Clarizio (1979) and Goodman (1979) further attest to the errors in measurements resulting from "respondent bias." Richmond complained about the length of the ABS and about the third party informant. The most obvious method of avoiding respondent bias is direct observation of the behavior in question. "The most direct and objective method would be through observation of the child in a controlled, individualized, and standardized psychoeducational assessment of adaptive behavior" (Mealor and Richmond, 1980, p. 389). In 1980 the CABS was developed.

Thus, the CABS appears to have been conceived and developed with good intentions. The authors realized that: "The problem of measuring 'adaptive behavior' is compounded by lack of professional consensus on a definition and description of the meaning of the concept" (Kicklighter and Bayley, 1980, p. 172). They believed that they were doing a good job: "CABS is an effort to measure and define the concept of adaptive behavior by yielding information that can be used in educational planning and instruction as well as diagnosis and assessment" (p. 172). Regarding theoretical information and validity, Richmond and Horn (1980, pp. 160-161) say that the CABS developers:

relied heavily on a survey of current theory and literature on adaptive behavior that has developed over the last ten years. The CABS has content validity, as indicated by its close adherence to the theoretical constructs of adaptive behavior.

However, several weak points related to the CABS are apparent. It

was normed on a small, heavily restricted sample consisting of 250 mildly retarded children (6-10 years old) living in South Carolina and Georgia. It has very limited age range (6 to 10). No mention is made about the ethnic and socioeconomic status of the norming group. Scoring criteria are sometimes quite vague. No basal and/or ceiling scoring criteria are available, requiring the examiner to give every item to all students. Consequently, some questions are too easy for some children and others too difficult for most subjects. With good basal and ceiling criteria this problem would be minimized. There is no need for additional items below age five and above age ten since the norms only cover these ages. There is no mention as to how the items within each domain were generated. Many items are very similar to some well known IQ tests. The whole scale is heavily loaded with verbal items. This investigator conducted an item analysis of the CABS-SV, group by group, domain by domain, and age by age. The results indicated that most of the items were passed for all groups and ages. Very few items discriminated between groups and ages suggesting that selective revision of the items and the basal and ceiling criteria should be seriously considered.

In spite of the limitations and weaknesses mentioned above, there are a few good points to mention supporting the use of the CABS. An attempt is made to avoid the "informant bias" (reliability problem) by administering the scale directly to the child. Some behaviors in school and outside school appear to be included. The scale also appears to be related to possible use in planning educational strategies. That is to say that the scale not only appears to offer utility in placement deci-

sions but also has potential for use in educational programming.

All things considered the CABS seems to include the two basic constructs (intelligence and adaptive behavior) and possibly the two adaptive behavior components that Reschly mentioned (behavior in school and behavior outside the school). Richmond and Kicklighter tried to avoid the "informant bias" and had the innovative idea to apply the scale directly to the child but unfortunately could not avoid the problem of overemphasizing the verbal comprehension aspect.

Concluding Commentary and Suggestions

The findings of the present investigation indicated that the children in the three Hispanic groups performed differently on the CABS-SV and ABS-SE Part One scales across educational groups (regular, learning disabled, and mildly retarded). Scores (total and domain scores) on the two scales correlated across the educational groups (40% of the correlations in the regular group, 43% in the learning disabled group, and 76% in the mildly retarded group). Both scales, in spite of including separated domains, appear to measure only one factor, (i.e., Language Development) or reaffirm homogeneity of the scales, although there are other less powerful domains. The CABS, (probably because of its form of direct application to the child) exhibits a heavy load of verbal comprehension items. Both scales are correlated with IQ. On the ABS-SE Part One, reported research indicates that at least some domains have high correlations with IQ. The CABS includes many questions similar to some

items of IQ tests. The CABS-SV reliability results reported here supported the high reliability reported in the CABS Manual. However, content validity appears questionable because the domains do not assess what they supposedly measure and all of them are heavily loaded with verbal intelligence items which appear to evaluate verbal intelligence rather than social competence.

In general, the Hispanic sample scored somewhat lower than the normative sample of the CABS although there were no significant differences between the scores for the Hispanic groups across the ages 8 and 9. These results should be interpreted with caution because of the small number in the Hispanic sample. Therefore, the CABS norms should be used cautiously, especially with older Hispanic children.

In the light of a number of questions raised throughout the present study, it appears that the adaptive behavior construct has not been clearly defined, identified, or measured. Consequently, further in depth investigations should be conducted. Before any attempt is made to measure the construct of adaptive behavior, it is very important to clearly define adaptive behavior; in what ways and to what extent is adaptive behavior different from intelligence as traditionally understood. Only when all these aspects have been clarified, will it be possible to develop pertinent items and domains. These items and domains should include ethnic, cultural, and social aspects particularly when minority children are involved in the evaluation.

The question of whether to administer these adaptive behavior scales directly to the child or to use the third party informant (parent or teacher) has not been satisfactorily addressed. It is suggested that an adaptive behavior scale should combine items for the child, the parent, and the teacher, creating however, a system of "answer reliability." For example, the child's answers would be checked for accuracy with parents or teachers. On the other hand, parent or teacher information would be verified by the child's performance. It is also possible to devise a "set of key items" within the scale in order to be verified with the actual performance of the child. In cases in which there is a great discrepancy between the information of parents, teachers, and the observed performance of the child, the scale would be considered questionable and the results would not be taken as valid.

The present study exhibited a number of limitations. It has been somewhat premature to investigate the adaptive behavior characteristics of Hispanic children across educational groups when the construct of adaptive behavior itself is not clear yet. The results were confounded with intellectual performance because the only factor that emerged from the factor analysis of the CABS seemed to be more of a verbal comprehension measure than a measure of social competence. The small sample of the study makes the results tentative. Another limitation is the inadequate identification of the group with learning problems (called learning disabled). These children were selected from classes for the learning disabled but no assurance was provided that they were in fact true learning disabled children rather than merely slow learners. The fact

that the learning disabled children consistently scored midway in all domains on both scales suggests that they performed more similiarly to students with slow learning characteristics than with learning disabled characteristics. However, considering that the strong factor that emerged from the CABS-SV and the ABS-SE Part One was a single verbal factor, it is possible that the specific disability of the group with learning problems was a verbal rather than a perceptual disability. A further question emerges: Would a group of learning disabled students with perceptual disabilities score midway in all domains on both scales as the learning disabled group did in the present study?

SUMMARY

The overall purpose of this study was to investigate systematically the adaptive behavior characteristics of a Hispanic sample of children comparing two adaptive behavior scales (CABS and ABS-SE Part One) across educational program classifications (regular, learning disabled, and mildly retarded). The overall theoretical rationale for conducting this study was related to the present controversy concerning the limitations of the psychological instruments which reportedly do not adequately measure intelligence and the need for the development of alternative and comprehensive assessment techniques. The use of adaptive behavior data is a legal mandate as part of the overall evaluation when special education placement decisions are involved. The nonbiased assessment of culturally, ethnically, and linguistically different students has come under increasing attack by members of minority groups and other members of the academic community.

Subjects in the investigation were 90 Spanish speaking children, boys and girls, ages 8 to 10, selected from regular classes (n=30), classes for the learning disabled (n=30), and classes for the mildly retarded (n=30). The two scales of adaptive behavior were administered to them according to the respective scale instructions. The CABS-SV was administered directly to the child and the ABS-SE Part One, was administered to a "third party assessor" (the child's teacher).

The investigator formulated a number of hypotheses to test whether differences existed across educational groups in regard to total and domain scores on the CABS-SV and on the ABS-SE Part One. He formulated another set of hypotheses to test whether significant relationships existed between the CABS and the ABS-SE Part One in each of the three groups. The researcher predicted that significant differences would be obtained among groups and that some significant correlations between the two scales would be found. The results of this study supported, in general, both predictions. However, the performance of the learning disabled group was not as expected. The learning disabled group appeared to include a number of slow learners rather than children exhibiting learning disabled characteristics.

The found reliability of the CABS-SV was .94 similar to the reliability index reported by the CABS authors. The factor analytic findings of the CABS-SV and the ABS-SE Part One, supported only one factor (a verbal factor on both scales). The results of the comparison between the total and domain scores of the mildly retarded group on the CABS-SV and original CABS indicated no significant differences between the ages of 8 and 9. However, there were some significant differences (between Independent Functioning, Family Role Performance, Economic Activity, and Socialization) at age 10. The small number of mildly retarded Hispanic students rendered the results tentative at best. The adaptive behavior characteristics of the mildly retarded Hispanic group were in general similar to the CABS sample.

The investigator concluded that the adaptive behavior construct is not yet clearly defined or measured. The results of this study showed a marked overlap between verbal intelligence and social competence, particularly on the CABS. The positive attempt made to evaluate the adaptive behavior by direct interaction with the child appears limited by the fact that such interaction is heavily loaded with items related to verbal intelligence. Finally, the investigator discussed in detail some other strengths and weaknesses of the CABS and made suggestions to improve the present measures of adaptive behavior.

REFERENCES

- Arndt, S. (1981). A General Measure of Adaptive Behavior. American Journal of Mental Deficiency, 85, 555-556.
- Baca, L., and Cervantes, H. (1978). The assessment of minority students: Are adaptive behavior scales the answer? Psychology in the Schools, 15(3), 366-370.
- Bailey, B. S., and Richmond, B. O. (1979). Adaptive behavior of retarded slow-learner, and average intelligence Children. Journal of School Psychology, 17(3), 260-263.
- Balthazar, E. E. (1973). Balthazar scales of adaptive behavior: II. Scales of social adaptation. Palo Alto, CA: Consulting Psychologists Press.
- Bernal, E. (1975). A response to "Educational uses of tests with disadvantaged students". American Psychologist, 30, 93-95.
- Bersoff, D. (1979). Regarding psychologists testily: Legal regulation of psychological assessment in the public schools. Maryland Law Review, 39, 27-120.
- Bersoff, D. (1980). Larry P. vs. Riles: Legal perspective. School Psychology Review, 9, 112-122.

- Bersoff, D. (1981). Testing and the law. American Psychologist, 36, 1047-1056.
- Board of Education, City of Chicago. (1981). Student desegregation plan for the Chicago public schools: Recommendations on educational components. Chicago Board of Education.
- Boyd, L., & Chissom, B. (1979). Analysis of the AAMD Adaptive Behavior Scale: Public School Version. Perceptual and Motor Skills, 49, 595-600.
- Bureau of Child Study. (1981). Cultural bias in the WISC subtest items. A response to Judge Grady's suggestion in relation to the PASE case. Chicago Board of Education.
- Buros, O. (Ed.). (1978). The eighth mental measurements yearbook. Highland Park, Ill: The Gryphon Press.
- Cervantes, H., and Baca, L. (1979). Assessing minority students: The role of adaptive behavior scales. Journal of Non-White Concerns in Personal and Guidance, 13(3), 214-221.
- Cervantes, R. (1974). Problems and alternatives in testing Mexican-American students. Integrated Education, 12, 33-37.
- Cicchetti, D., and Sparrow, S. (1981). Developing criteria for establishing interrater reliability of specific items: Applications to assessment of adaptive behavior. American Journal of Mental Deficiency, 86(2), 127-137.

- Cicchetti, D., and Sparrow, S. (1981, May 27). Some recent research on adaptive behavior scales: Toward resolving some methodologic issues. Paper presented at 105th Annual Meeting of the American Association on Mental Deficiency, Detroit, Michigan.
- Condas, J. (1980). Personal reflections on the Larry P. trial and its aftermath. School Psychology Review, 9, 154-158.
- CORRC (Coordinating Office on Regional Resource Centers). Undated (distributed in 1979). With bias toward none: A national survey of assessment programs and procedures. Lexington: University of Kentucky.
- Coulter, W. A. (1980). Adaptive behavior and professional disfavor: Controversies and trends for school psychologists. School Psychology Review, 9(1), 67-74.
- Coulter, W. A., & Morrow, H. W. (Eds.). (1977). The concept and measurement of adaptive behavior. Austin, Texas Regional Resource Center, 1977.
- Coulter, W. A., & Morrow, H. W. (Eds.). (1978). Adaptive behavior: Concepts and measurements. New York: Grune & Stratton.
- Davis, W. (1980). Educator's resource guide to special education: Terms-laws-tests-organizations. Boston: Allyn and Bacon, Inc.

- Federal Register. (1977, August 23). Regulations implementing education for all handicapped children Act of 1975 (Public Law 94-142), Author, 42474-42518.
- Finn, J. D. (1983). Multivariate approaches to the evaluation of programs for mildly mentally retarded persons. American Journal of Mental Deficiency, 88(3), 263-269.
- Fisher, A. T., & Gridley, G. C. (1982). Adaptive behavior for children: The need for local norms. Journal of School Psychology, 20(1), 39-44.
- Futterman, A. D., and Arndt, S. (1983). The Construct and predictive validity of adaptive behavior. American Journal of Mental Deficiency, 87(5), 546-550.
- Garza, P. (1976). Non-biased assessment of minority group children: Considerations. Austin, Texas: Conference on Non-biased Assessment of Minority Children.
- Grossman, H. (Ed.). (1973, 1977). Manual on terminology and classification in mental retardation. Washington, DC: American Association on Mental Deficiency.
- Guidubaldi, J., Kehle, T. J., & Murray, J. N. (1979). Assessment strategies for the handicapped. The Personnel and Guidance Journal, 58, 245-251.

- Heber, R. A. (1961). A Manual on terminology and classification in mental retardation. American Journal of Mental Deficiency, (Monograph Supplement).
- Heller, K. A., Holtzman, W. H., & Messick, S. (1982). Placing children in special education: A strategy for equity. Washington, DC: National Academy Press.
- Kamin, L. J. (1974). The science and politics of IQ. New York: John Wiley and Sons.
- Katz-Garris, L., Hadley, T., Garris, R., & Barnhill, B. (1980). A factor analytic study of the adaptive behavior scale. Psychological Reports, 47, 807-814.
- Kazimour, K., & Reschly, D. (1981). Investigation of the norms and concurrent validity for the Adaptive Behavior Inventory for Children (ABIC). American Journal of Mental Deficiency, 85(5), 512-520.
- Kicklighter, R., Bailey, B., & Richmond, B. (1980). A direct measure of measure of adaptive behavior. School Psychology Review, 9(2), 168-173.
- Koh, T., Abbatiello, A., & McLoughlin, C. (1984). Cultural bias in WIS subtest items: A response to Judge Grady's suggestion in relation to the PASE case. School Psychology Review, 13(1), 89-94.

- Lambert, N., and Nicoll, R. (1976). Dimensions of adaptive behavior of retarded and nonretarded public-school children. American Journal of Mental Deficiency, 81 (2), 135-146.
- Lambert, N. M., Windmiller, H., Cole, L., & Figueroa, R. (1974). AAMD Adaptive Behavior Scale: Public School Version (1974 Revision). Washington DC.: American Association on Mental Deficiency.
- Lambert, N. M., Windmiller, M., Cole, L., & Figueroa, R. (1975). Standardization of a public school version of the AAMD Adaptive Behavior Scale. Mental Retardation, 13(2), 3-7.
- Lambert, N.M., & Windmiller. (1981). AAMD Adaptive Behavior Scale School Edition. Revised and standardized. Washington, DC: American Association on Mental Deficiency.
- Lambert, N., Windmiller, M., Tharinger, D., & Cole, L. (1981). AAMD Adaptive Behavior Scale School Edition. Administration and instructional planning manual. Washington, DC: American Association on Mental Deficiency.
- Larry P. et al. vs. Wilson Riles et al. (1972, 1974, 1979). United States District Court, Northern District of California, Case No. C-71-2270 RFP.
- Leland, H. (1972). Mental retardation and adaptive behavior. Journal of Special Education, 6, 71-80.

- Leland, H., Shellhaas, M., Nihira, K., & Foster, R. (1967). Adaptive behavior: A new dimension in the classification of the mentally retarded. Mental Retardation Abstracts, 4, 359-387.
- Lutey, C., & Copeland, E. P. (1982). Cognitive assessment of the school-age child. In Reynolds, C., and Gutkin, T. (Eds.), The handbook of school psychology. (pp. 121-154). New York: Wiley and Sons.
- McLoughlin, C S., and Koh, T-H. (1982). Testing Intelligence: A decision suitable for the psychologist? Bulletin of the British Psychological Society, 35, 308-311.
- Mealor, D., & Richmond, B. (1980). Adaptive behavior: Teachers and parents disagree. Exceptional Children, 46, 386-389.
- Mercer, J. R. (1979). In defense of racially and culturally non-discriminatory assessment. School Psychology Digest, 8, 89-115.
- Mercer, J. R. (1973). Labeling the mentally retarded. Berkeley, CA: The Regents of the University of California.
- Mercer, F. R. (1978). Protection in evaluation procedures. In Morra, L. (Ed.), Developing criteria for the evaluation of protection in evaluation procedures provisions of Public Law 94-142. Washington, DC: U. S. Office of Education, Bureau of Education for the Handicapped.

Mercer, J. R. (1975). Sociocultural factors in educational labeling. In M. J. Begab and S. A. Richardson (Eds.), The mentally retarded and society: A social science perspective. Baltimore: University Park Press.

Mercer, J. R. (1979). Technical manual: SOMPA: System of multicultural pluralistic assessment. New York: Psychological Corporation.

Mercer, J. R. (1971). The meaning of mental retardation. In Koch and Dobson (Eds.), The mentally retarded child and his family. New York: Brunner and Mazel.

Mercer, J. R. and Lewis, J. F. (1977). SOMPA: Systems of multicultural pluralistic assessment. Parent interview manual. New York: Psychological Corporation.

Nihira, K., Foster, R., Shellhaas, M., and Leland, H. (1974). AAMD Adaptive Behavior Scale. Washington, DC: American Association on Mental Deficiency.

Nihira, K., Foster, R., Shellhaas, M., and Leland, H. (1975). American Association on Mental Deficiency Adaptive Behavior Scale 1975 Revision. Washington, DC: American Association on Mental Deficiency.

Oakland, T. (Ed.). (1977). Psychological and educational assessment of minority children. New York: Brunner and Mazel.

- Oakland, T. (1979). Research on the Adaptive Behavior Inventory for Children and the estimated learning potential. School Psychology Digest, 8(1), 63-70.
- Oakland, T. (1980). An evaluation of the ABIC pluralistic norms, and estimated learning potential. Journal of School Psychology, 18, 3-11.
- Oakland, T. (1983). Joint use of adaptive behavior and IQ to predict achievement. Journal of Consulting and Clinical Psychology, 51(2), 298-301.
- Oakland, T., & Goldwater, D. (1979). Assessment and interventions for mildly retarded and learning disabled children. In Phye, G., & Reschly, D. (Eds.), School Psychology. Perspectives and Issues (pp. 123-152). New York: Academic Press.
- Olmedo, E. (1981). Testing linguistic minorities. American Psychologist, 36(10), 1078-1085.
- PASE (Parents in Action on Special Educational) vs. Joseph Hannon. (1980, July). U. S. District Court, Northern District of Illinois, Eastern Division, No. 74 (3586).
- Pawlarczyk, D., & Schumacher, K. (1983). Current validity of the behavior development survey. American Journal of Mental Deficiency, 87(6), 619-626.

- Phye, G., & Reschly, D. (Eds.). (1979). School psychology. Perspectives and issues. New York: Academic Press.
- Plata, M. (1984). Assessment, placement, and programming of bilingual exceptional pupils: A practical approach. Reston, VA: ERIC, The Council For Exceptional Children. Public Law 94-142. (1974). Washington, D. C.: Education Amendments.
- Reschly, D. (1980, December). Nonbiased assessment. Unpublished manuscript, Department of Psychology, Iowa University.
- Reschly, D. (1981). Psychological testing in educational classification and placement. American Psychologist, 36(10), 1094-1102.
- Reschly, D. (1982). Assessing mild mental retardation: The influence of adaptive behavior, sociocultural status, and prospects for nonbiased assessment. In Reynolds, C. and Gutkin T. (Eds.), The Handbook of school psychology (pp. 210-236). New York: Wiley and Sons.
- Resnick, L. (Ed.). (1976). The nature of intelligence. New York: LEA, Inc.
- Reynolds, C. (1982). The problem of bias in psychological assessment. In Reynolds, C., & Gutkin, T. (Eds.), The Handbook of school psychology (pp. 178-208). New York: Wiley and Sons.
- Reynolds, C., and Gutkin, T. (1982). The Handbook of school psychology. New York: Wiley and Sons.

- Richmond, B., & Horn, W. (1980). Children's Adaptive Behavior Scale: A new measure of adaptive functioning. Psychology in the Schools, 17, 159-162.
- Richmond, B., & Kicklighter, R. (1980). Children's Adaptive Behavior Scale. Atlanta: Humanics Limited.
- Richmond, B., and Kicklighter, R. (1981). Children's Adaptive Behavior Report. Atlanta: Humanics Limited.
- Roszkowski, M., & Bean A. (1980). The Adaptive Behavior Scale (ABS) and IQ: How much unshared variance is there? Psychology in the Schools, 17, 452-459.
- Sattler, J. M. (1982). Assessment of children's intelligence and special abilities. Boston: Allyn and Bacon.
- Spivack, G., Platt, J. J., & Shure, M. B. (1976). The problem-solving approach to adjustment. Jossey-Bass. San Francisco: Jossey-Bass.
- Spreat, S. (1980). The Adaptive Behavior Scale: A study of criterion validity. American Journal of Mental Deficiency, 35(1), 61-68.
- Spreat, S. (1982). The AAMD Adaptive Behavior Scale: A psychometric review. Journal of School Psychology, 20(1), 45-56.
- Sweetland, R., & Keyser, D. (Eds.). (1983). Tests. Kansas City: SKS Associates, Test Corporation of America.

- Talley, R. (1979, November). Evaluating the effects of implementing SOMPA. Bloomington, Indiana: School of Education, University of Indiana, Center for Innovation in Teaching the Handicapped.
- Taylor, R. (1980). Use of the AAMD classification system: A review of recent research. American Journal of Mental Deficiency, 85(2), 116-119.
- Thiel, G. (1981). Relationship of IQ, adaptive behavior, age, and environmental demand to community-placement. Success of mentally retarded adults. American Journal of Mental Deficiency, 85(2), 208-211.
- Tucker, J. (1977). Operationalizing the diagnostic-intervention process. In T. Oakland (Ed.), Psychological and Educational Assessment of Minority Children. New York: Brunner and Mazel.
- Turnbull, H. (1978). The past and future impact of court decisions in special education. Kappan, 60, 523-527.

APPENDIX A

OTHER MEASURES OF ADAPTIVE BEHAVIOR

Adaptive Functioning Index (AFI), by Marlett and Hughson, 1971-1978. Ages 14 and over in rehabilitation and special education settings. Includes: Social Education Test (9 scores), Vocational Check List (12 scores), Residential Check List (15 scores), Adaptive Functioning of the Dependent Handicapped (20 scores). Ratings by staff. Vocational and Rehabilitation Research Institute (Canada).

Balthazar Scales of Adaptive Behavior (BSAB), by Balthazar, 1971-1976. Formerly called Central Wisconsin Colony Scales of Adaptive Behavior. Profoundly and severely retarded adults and the younger less retarded. Two sections: Section I: The Scales of Functional Independence (8 ratings). Section 2: Scales of Social Adaptation (19 ratings grouped in 7 categories). Sixty minutes in several sessions. Consulting Psychologists Press, Inc.

Cain-Levine Social Competency Scale (CLSCS), by Cain, Levine, and Elzey, 1963. Mentally retarded children ages 5-13. Five scores. Information obtained from parents. (25-75 minutes.) Consulting Psychologists Press, Inc.

California Preschool Social Competency Scale (CPSCS), by Levine, Elzey, and Lewis, 1966. Ages 2.5-5.5. Ratings by teachers. Consulting Psychologists Press, Inc.

California Psychological Inventory (CPI), by Gough, 1956-1975. Ages 13 and over. Eighteen scores. (45-60 minutes.) Consulting Psychologists Press, Inc.

Camelot Behavioral Checklist (CBC), by Foster, 1974. Mentally retarded. Ratings by parents, ward attendants, and teachers. Eleven scores. (25-35 minutes.) Camelot Behavioral Systems.

The Child Behavior Rating Scale (CBRS), by Cassel, 1960-1962. Grades kindergarten-3. Ratings by teachers or parents. Six adjustment scores. Western Psychological Services.

Comprehensive Test of Adaptive Behavior (CTAB), by Adams. Ages birth-adult handicapped. Six skill categories. Charles E. Merrill Publishing Company.

Devereux Adolescent Behavior Rating Scale (DAB), by Spivack, Spotts, and Haimes, 1967. Normal and emotional disturbed children ages 13-18. Twelve factor scores. Devereux Foundation Press.

Devereux Child Behavior Rating Scale (DCB), by Spivack and Spotts, 1966. Emotionally disturbed and mentally retarded children ages 8-12. Seventeen scores. Devereux Foundation Press.

Devereux Elementary School Behavior Rating Scale (DESB), by Spivack and Swift, 1966-1967. Grades kindergarten-6. Eleven factor scores. Devereux Foundation Press.

Early School Personality Questionnaire (ESPQ), by Coan and Cattell, 1966-1967. Ages 6-8. Thirteen first-order factor scores and four second-order factor scores. (60-100 minutes.) Institute for Personality and Ability Testing.

Fairview Developmental Scale: For the Infirm Mentally Retarded (FDS), by Boroskin, Ross and Giampiccolo, 1971-1974. Severely and profoundly mentally retarded. Eleven scores. (15-60 minutes.)

Research Department, Fairview State Hospital.

Pennsylvania Training Model Individual Assessment Guide (PTMIAG)
Revised Edition by Somerton-Fair and Turner, May, 1979. Severely and
profoundly retarded children and multiply handicapped children. Five
areas: Sensory, motor, self-care, communication, cognition, and social.
Pennsylvania Department of Education.

Preschool and Kindergarten Performance Profile (PKPP), by DiNola,
Kaminsky, and Sternfeld, 1970. Preschool and kindergarten. Eleven
scores. Ratings by teachers. Educational Performance Associates, Inc.

Preschool Attainment Record, Research Edition (PAR), by Doll,
1966-1967. Ages 6 months to 7 years. Nine scores. American Guidance
Service.

The Preschool Behavior Questionnaire (PBQ), by Behar and String-
field, 1974. Ages 3-6. Four scores. Leonor Behar.

Pupil Behavior Inventory (PBI), by Vinter, Sarri, Vorwaller, and
Schafer, 1966. Grades 7-12. Five scores. Ratings by teachers. Campus
Publishers.

SEED Developmental Profiles (SDP), by Herst, Wolfe, Jorgensen, and
Pallan, 1976. Birth to 48 months. Eight developmental profile areas.
Sewall Rehabilitation Center.

Social and Prevocational Information Battery (SPIB), by Irvin,
Halpern, Raffeld, Link, and Reynolds, 1975-1979. Educable mentally
retarded grades 7-12, trainable mentally retarded grades 7-12. Ten
scores. McGraw-Hill.

Social Behavior Assessment (SBA), by Stephens, 1978-1980. Grades

kindergarten-6. Four areas. Ratings by teachers. Cedars Press, Inc.

TARC Assessment Inventory for Severely Handicapped Children (TARC), by Sailor and Mix, 1975. Severely handicapped ages 3-16. Seventeen scores. Sixty minutes. H & H Enterprises, Inc.

T.M.R. Performance Profile for the Severely and Moderately Retarded (T.M.R.PPSMR), by DiNola, Kaminsky, and Sternfeld, 1963-1967. Ages 4 and over. Seven scores. Educational Performance Associates, Inc.

T.M.R. School Competency Scales (T.M.R.SCS), by Levine, Elzey, Thormahlen, and Cain, 1976. Trainable mentally retarded. Ages 5-17. Five scores. Ratings by teachers. Consulting Psychologists Press, Inc.

Uniform Performance Assessment System (UPAS), by Haring, White, Edgar, Affleck, and Hayden, 1981. All ages with developmental level birth to 6 years. Five subtests. Merrill Publishing Co.

Y.E.M.R. Performance Profile for the Young Moderately and Mildly Retarded (Y.E.M.R.PPYMMR), by Dinola, Kaminsky, and Sternfeld, 1967. Ages 5-9. Eleven scores. Educational Performance Associates, Inc.

APPENDIX B

CHILDREN'S ADAPTIVE BEHAVIOR SCALE-SPANISH VERSION

(CABS-SV)

ESCALA DE CONDUCTA ADAPTATIVE PARA NIÑOS-VERSION EN ESPAÑOL

(ECAN-VE)

I.- Desarrollo del Lenguaje

- Number _____
Score
- 0 1 1.- ¿Cuántos años tienes? _____
- 0 1 2.- ¿Cuántos dedos hay aquí? (Muestre dos dedos). _____
- 0 1 3.- Repite esto: "Yo soy un(a) niño(a) grande y me gusta jugar con mis amigos(as)". (Debe ser repetido exactamente).
- 0 1 2 3 4 4.- Dime el nombre de algo que, a) puedes comer _____
b) puedes beber _____
c) sirve para montarse _____
d) es redondo _____
- 0 1 2 3 4 5.- (Presente la tarjeta A). Pida al estudiante que identifique estos colores: a) azul, b) verde, c) rojo, d) amarillo.
- 0 1 2 3 6.- Dime tres animales que tienen cuatro patas. (No sugiera).

- 0 1 2 3 4 7.- Dime qué letra es ésta. (Presente la tarjeta B. Señale una letra cada vez). a) A, b) C, c) E, d) D
- 0 1 2 3 4 8.- (Presente la tarjeta B y pida al estudiante que copie cada una de las letras). _____
- 0 1 2 9.- (Pida al estudiante que escriba su nombre y apellido).

- 0 1 2 3 4 10.- (Presente la tarjeta C). Léa en voz alta estas palabras:
a) CASA, b) PERRO, c) LUNA, d) NIÑO
- 0 1 2 3 4 11.- (Pida al estudiante que copie cada una de las palabras de la tarjeta C).

- 0 1 12.- (Presente la tarjeta D). Dime lo que pasa en este dibujo.

- 0 1 13.- (Se ha de usar dos o más frases complejas describiendo el dibujo. No se requiere corrección gramatical).
- 0 1 2 3 4 14.- ¿Qué quieren decir estas palabras?
a) carro _____
b) problema _____
c) ascensor ("elevador") _____
d) peligroso _____
- 0 1 15.- Dime un cuento corto y yo lo escribo aquí. (El cuento ha de constar de trama, caracteres y final).

- 0 1 16.- (Presente la tarjeta E). Pida al estudiante que lea estas palabras:
a) GIGANTE, b) FUTURO, c) CLASE, d) LIMPIO, e) PLUMA
- Total
()

Number _____

S c o r e _____

II.- Funcionamiento Independiente

- 0 1 2 3 4 5 1. (Presente la tarjeta A). Pida al estudiante que los nombre.
a) Cuchillo, b) Tenedor, c) Cuchara, d) Plato, e) Vaso
- 0 1 2 3 2. (Tarjeta A: tenedor, cuchillo, cuchara, plato, vaso).
a) ¿Con cuál tomas caldo?
b) ¿Con cuál cortas carne?
c) ¿Con cuál bebes agua?
- 0 1 3. (Dé unas tijeras y papel). Pida al estudiante que recorte un círculo).
- 0 1 4. Pida que recorte un cuadrado.
- 0 1 5. Pida al estudiante que se abotone la camisa, suba o baje el cierre de su chaqueta (chamarra), se abroche el cinturón (la correa) o se amarre los zapatos. (Use las prendas del estudiante o cualquier otra disponible).
- 0 1 6. Enséñame tu pie derecho.
- 0 1 7. Enséñame tu mano izquierda.
- 0 1 8. ¿Cuál es tu dirección? (Compruébela en los documentos de la escuela).
- 0 1 9. ¿Cuál es tu número de teléfono? (Compruébelo en los documentos de la escuela). (Si no tiene teléfono que diga uno de sus familiares o vecinos).
- 0 1 10. ¿Qué debes hacer si te pierdes en la ciudad o barrio? (Nombre la ciudad del estudiante o el barrio más cercano).
-
- 0 1 11. ¿Dónde puedes encontrar un Doctor? _____
- 0 1 12. ¿Dónde puedes comprar carne? _____
- 0 1 13. ¿Dónde puedes encontrar el número de teléfono de la policía o de los bomberos? _____
- 0 1 2 3 14. (Presente la tarjeta B y pregunte qué hora es).
a) 9:00
b) 10:30
c) 1:15
- 0 1 15. ¿Por qué debes cepillarte los dientes? _____
- 0 1 16. ¿Por qué debes lavarte la cara? _____
- 0 1 17. ¿Dónde puedes comprar estampillas (sellos), sobres y giros postales? (Nombrar un sitio). _____
- 0 1 18. Nombra todos los días de la semana.
-
- 0 1 19. ¿Dónde compras clavos y un martillo? _____
- 0 1 20. ¿Dónde compras plátanos (guineos)? _____
- 0 1 21. ¿Dónde compras medicina para la tos, o una receta médica? _____
-
- 0 1 2 22. Dime dos maneras cómo los niños generalmente pueden conseguir dinero.
-
- 0 1 2 23. Dime dos maneras cómo los adultos generalmente pueden conseguir dinero.
-
- 0 1 24. (Presente la tarjeta C). Pida al estudiante que busque el número de teléfono de Antonio Drake. (90 segundos).
- 0 1 25. ¿Qué número de teléfono marcas para llamar a la telefonista? _____
- 0 1 26. Si la temperatura fuera de 90 grados (F), (32° C), ¿Qué es lo que harías?
a) Ir a nadar
b) Ponerte la chaqueta (chamarra)
c) Poner el calor
- 0 1 27. ¿Cómo se llama esta ciudad? _____
- 0 1 28. ¿Cómo se llama este país (nación)? _____
- 0 1 29. ¿En qué mes estamos? _____
- 0 1 30. ¿En qué año estamos? _____

Total

()

S c o r e

- 0 1 1.- (Presente la tarjeta A). ¿Quién es una hermana? _____
- 0 1 2.- ¿Cuántas personas hay en tu familia? _____
- 0 1 3.- (Presente tres tarjetas que se han de ejecutar en orden. Cualquiera actividad que sea apropiada, tal como: "Toma este lápiz, llama o toca a la puerta, después coloca el lápiz sobre la mesa").
- 0 1 4.- (Presente la tarjeta B). ¿Qué es esto? _____
- 0 1 2 3 5.- Un papá es un hombre.
 a) Una mamá es una _____
 b) Un hermano es un _____
 c) Una hermana es una _____
- 0 1 6.- Cuéntame algo que haya pasado en tu familia la semana anterior. (Si no responde, que diga algo que pasó hoy o en cualquier otro momento). (Recibe crédito o puntuación si menciona una persona diferente de sí mismo(a)).

- 0 1 7.- ¿Tienes un perro (gato) en casa? ¿Cómo se llama? (Si no tiene, que diga el nombre del perro o gato del vecino). _____
- 0 1 2 8.- ¿Tienes algunos oficios o quehaceres que generalmente haces en casa?

- 0 1 9.- ¿Cuál usas para hacer pan? (Zanahoria, gelatina, harina, queso).
- 0 1 2 3 4 10.- (Presente la tarjeta C). ¿Para qué usas,
 a) la escoba? _____
 b) la toalla? _____
 c) el reloj? _____
 d) el teléfono? _____
- 0 1 2 11.- Dime dos maneras de cocinar un huevo. _____
- 0 1 2 12.- ¿En qué cocinas frijoles o habichuelas? _____
 ¿Cómo haces para enterarte de las noticias? _____
- 0 1 2 13.- ¿Qué harías si hubiera un incendio en tu casa y tú estuvieras allí solo(a)? (Si la respuesta es "lo apago", diga: "supongamos que tú no puedes apagarlo, entonces qué harías?").
- 0 1 2 3 4 5 14.- (Presente la tarjeta D).
 a) ¿En qué cuarto cocinas?
 b) ¿En qué cuarto duermes?
 c) ¿En qué cuarto guardas el cepillo de dientes?
 d) ¿En qué cuarto te sientas a ver la televisión o a hablar con tus padres?
 e) ¿Qué haces en este cuarto? (Señale el comedor). _____
- 0 1 15.- (Presente la tarjeta E). Pregunte qué casa es mejor.
- 0 1 2 3 4 16.- (Si la respuesta es correcta, pida al estudiante que diga cuatro cosas que se podrían hacer para mejorar la otra casa). _____

- 0 1 2 3 17.- ¿Cuántos años debes tener para,
 a) votar? _____
 b) tener un trabajo de tiempo completo? _____
 c) manejar (guiar) carro? _____
- 0 1 18.- Dime cómo preparas comida para tí (excepto un "sandwich").

- 0 1 2 19.- ¿Qué harías si al llegar de la escuela, no encuentras a nadie en casa, ves que hay una ventana rota y que se han llevado el televisor?

- 0 1 2 20.- ¿Qué harías si ves que hay un accidente en frente de tu casa?

Total _____

()

IV.- Actividad Económica y Vocacional

Number _____

Score _____

- 0 1 2 1.- ¿Dónde hay más? (Presente bloques u otros objetos similares).
 a) Presente un grupo de 4 bloques, y otro grupo de 2 bloques.
 b) Presente 3 bloques y 6 bloques.
- 0 1 2 3 4 2.- (Presente la tarjeta A). ¿Cuál cuesta más?
- 0 1 2 3 4 3.- (Presente la tarjeta B).
 a) ¿Quién es un dentista?
 b) ¿Quién es un agricultor (granjero o ranchero)?
 c) ¿Quién es un cocinero?
- 0 1 4.- (Presente la tarjeta C). ¿Qué herramienta usas para arreglar un carro? (Si escoge el martillo, pida que explique).
- 0 1 2 3 4 5.- ¿Cuál cuesta más?
 a) carro - bicicleta
 b) dulce - reloj
 c) chaqueta (chamarra) - camisa
 d) pelota de baseball - radio
- 0 1 6.- ¿A dónde llevas el carro para que lo reparen (arreglen)? _____
 (Si la respuesta es: "a casa", pregunte, ¿Si la persona no es de la ciudad a dónde lo lleva a arreglar?).
- 0 1 7.- ¿En dónde trabaja una enfermera? _____
- 0 1 8.- ¿Qué hace un plomero? _____
- 0 1 2 3 4 9.- (Presente la tarjeta D). ¿Cuál de estas cosas usarías,
 a) para arreglar una bicicleta?
 b) para hacer un vestido (traje)?
 c) para hacer el desayuno?
 d) si fueras un carpintero?
- 0 1 2 3 4 10.- (Presente una moneda de un centavo, de cinco, de diez, y una de veinticinco. Pida al estudiante que las nombre o indique su valor).
- 0 1 11.- (Con las mismas monedas). ¿Cuál vale más o con cuál compras más?
- 0 1 2 3 4 12.- Dime qué moneda vale menos, la siguiente que vale menos, la que le sigue, y finalmente la que vale más de todas.
- 0 1 13.- (Presente tres monedas de veinticinco, tres de diez, tres de cinco y tres de un centavo). Dame un dólar con estas monedas.
- 0 1 2 14.- Pida al estudiante que reúna la siguiente cantidad de dinero:
 a) 75 centavos,
 b) 98 centavos.
- 0 1 2 15.- Dame el cambio (la vuelta) exacto(a) de \$1.00 por la compra de,
 a) 27 centavos,
 b) 35 centavos.
- 0 1 16.- ¿Cuánto cuesta una CocaCola (soda)? _____
- 0 1 17.- ¿Cuánto cuesta una caja pequeña de dulces? _____
- 0 1 18.- ¿Cuánto vale una estampilla (sello) para enviar una carta ordinaria en la ciudad? _____
- 0 1 2 3 19.- ¿Quién gana más dinero?
 a) un maestro - un director de escuela
 b) un ingeniero - un encargado de la limpieza
 c) un mecánico - un doctor
- 20.- ¿Has ido, alguna vez, a la tienda a comprar algo para tí? ¿Qué cosa?

- 0 1 21.- ¿Cómo has hecho, alguna vez, para conseguir dinero?

Total _____

()

Score

- 0 1 2 3 4 1.- ¿Cuál es tu nombre y apellido? ¿Cómo se llama tu mamá y tu papá? (Compruébelos en los documentos de la escuela).
- 0 1 2.- ¿Qué harías si tú tuvieras dos pelotas (bolas), (muñecas), y tu mejor amigo(a) no tuviera ninguna? _____
- 0 1 3.- ¿Qué debes decir si empujas a alguien sin querer? _____
- 0 1 4.- ¿Qué debes decir si alguien te da un dulce? _____
- 0 1 2 5.- ¿Qué debes hacer si tu hermano(a) pequeño(a) se hace una cortaca en un dedo y tus padres no están en casa? _____
- 0 1 2 3 6.- (Presente la tarjeta A).
 - a) ¿Qué quiere decir cada una de estas caras? _____
 - b) ¿Qué cara pones cuando te caes y te golpeas la rodilla? _____
 - c) ¿Qué cara tienes cuando juegas con tus padres? _____
- 0 1 2 3 7.- (Presente la tarjeta A). ¿Enséñame qué cara pones cuando tu mamá,
 - a) te da un dulce?
 - b) está disgustada contigo?
 - c) tiene una sorpresa para tí?
- 0 1 8.- (Presente la tarjeta B). Imagínate que tú estás en el dibujo. Señala con el dedo quién serías tú.
- 0 1 9.- (Presente las tarjetas B y A). Imagínate que éste es tu primer día de escuela. ¿Cuál de estas tres caras indica cómo te sentirías al juntarte con los(as) otros(as) niños(as)?
- 0 1 10.- (Presente las tarjetas C y A). Imagínate que éste es José con su familia reunida. ¿Cuál de estas caras indica cómo se siente él cuando está con su familia?
- 0 1 11.- ¿Qué debes hacer si un(a) niño(a) más pequeño(a) que tú, te insulta o te dice una palabra fea? _____
- 0 1 12.- ¿Qué debes hacer si te encuentras una cartera (bolsa) en la calle con dos pesos (dólares)? _____
- 0 1 13.- ¿Cuando vas a casa (o estás en casa) prefieres jugar solo(a) o con otros(as) niños(as)? _____
- 0 1 14.- ¿Durante el recreo prefieres jugar con un(a) solo(a) amigo(a), o con varios(as) amigos(as)? _____
- 0 1 15.- ¿Qué debes hacer si tu mejor amigo(a) te pregunta la respuesta en un examen? _____
- 0 1 16.- Cuéntame un chiste o algo que sea gracioso (divertido). (Si no está claro pregunte dónde está lo gracioso). _____
- 0 1 2 3 17.- Nombra tres cosas que puedes jugar con otros(as) niños(as) en el campo de juego. _____
- 0 1 18.- ¿Cuál de estas cosas puedes jugar solo(a)?
 - a) Saltar la cuerda. b) Baseball. c) Jugar al esconder (escondidas).
- 0 1 19.- ¿Qué puedes hacer para que tu papá (mamá) se sienta feliz? _____
- 0 1 20.- Cuando un niño pierde algo (balón de basket) se siente _____
- 0 1 21.- Cuando una niña encuentra una moneda de veinticinco se siente _____
- 0 1 22.- Cuando un niño saca una nota (calificación) baja se siente _____
- 0 1 23.- ¿Qué debes hacer si pierdes tu libro de lectura? _____
- 0 1 24.- ¿Si tu clase hace una presentación (comedia) te gustaría participar en ella? _____
- 1 2 3 25.- Si te cambias a un nuevo barrio (escuela) nombra tres cosas que puedes hacer para tener nuevos(as) amigos(as). _____

Por qué debemos ceder a otros el turno? _____
 ¿qué los mayores deben trabajar? _____
 ¿qué necesitamos tener leyes? _____

Total
()

APPENDIX C



Scoring Guidelines

Language Development

1. Score correct if child gives age in years. Check school records and/or parents to see if correct age. (If child is six tomorrow he must still say 5 today in order to be correct or if exactly 6 today he can no longer say 5.)
2. Must say "2." Can not hold up his 2 fingers as his *only* response.
3. Use word "boy" when giving this to a boy and "girl" only when administering to a girl. Each word in the sentence must be repeated with no additions or deletions to be credited.
4. Any object that fits the description is acceptable.
5. Credit one point for each color correctly identified.
6. Any *real* animal is acceptable.
7. Credit one point for each letter correctly identified.
8. Must be easily recognizable as the correct letter and credit one point for each written correctly.
9. Credit one point for first and one for last name — spelling must be correct. Other names, such as middle names or mother's maiden name are not scored regardless of whether right or incorrect.
10. Credit one point for each word read correctly. Ignore articulation problems of small children.
11. Credit one point for each word written correctly.
12. Must identify this correctly as a soccer game (such as "The boys are playing a game. It looks like a soccer game.").
13. Child must have spontaneously used two or more complete sentences in identifying the activity in item 12.
14. Credit one point for each accurate description of a word. The two nouns may be identified physically or their use may be detailed.
15. The story must have an obvious plot, contain characters, and have an ending to be correct. However, the story can be very simple as follows:
One day my friend and I were walking to school and we saw a little animal run across the street. We tried to catch it but it ran away.
16. These words are considered average for a third or fourth grade child. The child must be able to read 3 out of 5 in order to get this item correct.

Independent Functioning

1. Credit one point for each correct response.
2. Credit one point only if the most preferred object is identified.
3. Score leniently but figure must have a general spherical shape.
4. Score leniently but must generally have four corners — a rectangle but not a triangle could be credited.
5. Child should be wearing one of these items. (Examiner may take along a sample zipper or use own shoe for tying, etc.)
If child makes a mistake and then automatically corrects self, the correct answer may be credited. Give no help on this item.

7. (Same as #6)
- + 8. Should have street and number as well as city and state. (Box number or rural route) (Just check school records,)
9. Write down and check later for accuracy.
10. Credit if child proposes initiating action such as telephoning, looking for police, etc. (Sit down and wait to be found, is not credited.)
11. Hospital or medical clinics or looking in yellow pages are suitable responses.
12. Credit grocery store, butcher shop, or other place that is reasonable.
13. Telephone book, telephone booth, yellow pages. If child says, "Ask teacher, etc," inquire where teacher would find number.
14. Credit one for each correct response.
15. Cleanliness, health reasons, preservation of teeth. (Do not credit response indicating "parents tell me to.")
16. Cleanliness, health, social reasons. (Do not credit response indicating "parents tell me to.")
17. Post office. (If other location, question or verification)
18. Must be in correct order. May start naming at any day.
19. Credit any reasonable response.
20. Credit any reasonable response.
21. Drug store or other suitable place where drugs are dispensed.
22. Credit one for each correct response. Specific required. (*Work not acceptable.*)
23. Credit one for each correct response. (*Work not acceptable.*)
24. Allow ninety seconds only.
25. 0 or 411 or 555-1212 or other if appropriate.
26. "a" is only correct response.
27. Closest town satisfactory if child lives in country.
28. Must be correct.
29. Must be correct.
30. Must be correct.

Family Role Performance

1. Must select female picture.
2. Credit only for correct response. (Check school records.)
3. Child must complete all 3 directions *and* in order given.
4. "Stove" or "cook" not accepted.
5. Credit one for *each* correct response.
6. Try to record story for its possible clinical content. Story must have a plot, one character other than self, and an ending to be credited. Does not have to be a long or complex story.
- + 7. Accept any reasonable name. (Check with the family.)
8. Credit one point if task is named. Award child an extra point if task is explained in some detail. For example: "Washed dishes" – 1 pt. but "I help my mother wash dishes every other night and my sister helps her the other nights" = 2 pts.
9. Must choose flour as the *best* response.
10. Credit one for each correct response. Must give a *relevant* use for each object.
11. Credit one for each correct (plausible) response.
 1. Credit one for each correct response.
 2. Credit 0 if child takes no initiative to get away or put out fire. Credit 1 if child makes an effort to save self from fire or to put it out. Credit 2 if

child makes an effort to save self from fire *and* get help or put out the fire.

14. Credit one for each correct response.
15. Credit good repair house as correct.
16. Credit one for each correct response.
17. Credit one for each correct response. (a) 18, (b) 16, (c) 15 or 16 (Check state law)
18. Record response and check out later if unsure of correct preparation.
19. Credit 0 if nothing; credit 1 if "tell parents"; credit 2 if take action to solve crime such as telling police or getting help.
20. Credit 0 if nothing; 1 if go to observe what happened; 2 if get help for those involved.

Economic-Vocational Activity

1. One point for each correct choice.
2. Credit choice of meat package.
3. Credit one for each correct choice.
4. Credit only wrenches as correct answer unless possible explanation given.
5. Credit one for each correct response.
6. If answer is "at home" ask: "If a stranger in town has trouble with his car where could he get it fixed?" Accept reasonable answers.
7. Hospital, clinic, or similar response needed.
8. Must indicate repair or installation of water or sewer lines or equipment attached thereto.
9. Credit one for each correct response.
10. Credit one for each correct response.
11. Credit one for correct response.
12. Credit one for each correct response.
13. Must be exact.
14. Credit one for each correct response.
15. Must be exact.
- + 16. Credit response between 15¢ and 40¢. (30¢ and 50¢.)
- + 17. Credit response between 10—25¢. (20—35¢.)
- + 18. Credit 12—20¢. (15—20¢.)
19. Credit one for each correct response.
20. Credit one point if plausible and if definite that child, not a parent, made purchase.
21. Credit if child provides a plausible explanation.

Socialization

- + 1. Credit one for each correct response (if parent(s) deceased, etc. ask for foster parents, guardian, house parents or relatives.) (Just check school records.)
2. Credit response indicating sharing.
3. Credit verbal response indicating asking to be excused.
4. Credit verbal response indicating thanks.
5. Credit two if child acts to solve problem; credit one if tries to get help from others.
6. Credit one for each correct response. (If child does not correctly identify emotions of all 3 faces, then examiner should identify each emotion.)
7. Credit one for each correct response.
8. Credit one if child chooses to be in the group, not alone.

9. Credit one if child chooses happy face.
10. Credit one for happy face.
11. Credit one if child chooses anything other than "hit the other kid, etc."
12. Credit one if child attempts to return purse and money.
13. Credit one if chooses to play with others and names game.
14. Credit one if chooses several friends.
15. Credit one if child does not give answer.
16. Score leniently. Credit one point if child is able to express humor verbally.
17. Credit one for each correct response.
18. Credit response "a" only.
19. Credit one if plausible.
20. Sad, unhappy, or similar response.
21. Happy or similar response.
22. Unhappy or similar response.
23. "Look for it," "report it lost," or "buy another" are all correct.
24. Credit one point for yes.
25. One point for each plausible response.
26. Credit one for notion of sharing.
27. To earn a living, support family, or similar response.
28. To protect us, to govern behavior, or similar response.

APPENDIX D

APPROVAL SHEET

The dissertation submitted by Rafael-Dannessy Beltran-Dussan has been read and approved by the following committee:

Dr. Ronald R. Morgan, Director
Associate Professor, Foundations of Education
Loyola University

Dr. Joy J. Rogers
Associate Professor, Foundations of Education
Loyola University

Dr. Todd J. Hoover
Associate Professor, Curriculum and Instruction
Loyola University

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Education.

Date

4/19/84

Director's Signature

