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Comparison Of The Abridged Version Of The System Of Multicultural Pluralistic Assessment And The Hahnemann Elementary School Behavior Scale With Special Education Students

Mary Allasina Yaryan
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COMPARISON OF THE ABRIDGED VERSION OF THE SYSTEM OF
MULTICULTURAL PLURALISTIC ASSESSMENT AND THE
HAHNEMANN ELEMENTARY SCHOOL BEHAVIOR SCALE
WITH SPECIAL EDUCATION STUDENTS

A Dissertation
Presented to
The Faculty of the Graduate School
University of the Pacific

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

by

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August, 1980

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COMPARISON OF THE SYSTEM OF MULTICULTURAL PLURALISTIC
ASSESSMENT AND THE HAHNEMANN ELEMENTARY SCHOOL BEHAVIOR
SCALE WITH SPECIAL EDUCATION STUDENTS

Abstract of the Dissertation

The purpose of this study was to determine if the System of Multicultural Pluralistic Assessment (SOMPA) information which included the Adaptive Behavior Inventory for Children (ABIC) and the Estimated Learning Potential (ELP) was redundant of information on the teacher-scored Hahnemann Elementary School Behavior Scale (HESB) and the Wechsler Intelligence Scale for Children-Revised (WISC-R) subtest scores for male and female Black, White, and Chicano Learning Handicapped (LH) and Resource Specialist Program (RSP) fourth grade-age students. LH students in the Sacramento City Unified School District system were considered more academically handicapped than RSP students. If these various tests were found to be redundant, valuable time and money could be saved and the requirements of PL 94-142 could be met.

Method. Thirty Black, 30 White and 30 Chicano LH and RSP students were drawn from a parent population of 250 fourth grade-age special education students assessed during the 1978-1979 school year. Of the 90 students selected for this study, 25 males and 5 females were selected for each ethnic group. LH/RSP membership was unequal for the groups. For the Blacks there were 23 LH and 7 RSP; for Whites there were 26 LH and 4 RSP; while the Chicanos were equally divided with 15 in each classification. Permission for testing was obtained from each parent involved in the study; subsequent to the receipt of permission, the teacher of each student completed the HESB and each parent was interviewed on the SOMPA. Those students not already assessed with the WISC-R were also tested with this instrument.

Results. The results of this study showed that there was a significant relationship between the HESB and SOMPA ABIC for White and Chicano students. The correlations between the SOMPA ELP verbal scores and SOMPA ABIC showed that only for the Black population was there a significant relationship ($r = .51$, $p < .002$).

Correlations of the WISC-R verbal, performance and full-scale scores and the SOMPA ABIC for the Blacks were significant ($r = .62$, $.50$ & $.63$ respectively). Chicanos showed correlations between the WISC-R performance and SOMPA ABIC ($r = .34$).

No significant differences were found among the means of the three ethnic groups or between the sexes on the a) SOMPA ABIC b) SOMPA ABIC subtests, and c) the SOMPA ELP subtests. The HESB distinguished between the Chicano group and the other ethnic groups, however, and all these tests showed significant differences between the LH and RSP students.

There were also no significant differences in the number of Blacks, Whites and Chicanos predicted for special education by the SOMPA ABIC, SOMPA ELP, and WISC-R.

Conclusions. The HESB, some ABIC subtest scores, and the ELP performance scores were sensitive to the LH/RSP classification. The HESB distinguished between the ethnic groups and showed the Chicanos to have more academically successful behavior. Neither the SOMPA ABIC, SOMPA ELP or WISC-R discriminated on the basis of ethnic membership.

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CHAPTER I
THE PROBLEM, HYPOTHESES, AND
DEFINITION OF TERMS

Introduction

Recent legislation and growing public concern about educational testing practices have resulted in close scrutiny of assessment procedures for placing students in special education classes (Oakland, 1973). Concerned parents have questioned the amount of time spent on assessment procedures when the test scores have resulted in misplacement of their children (Oakland, 1979). The problem of misclassification has centered around assessment instruments which have discriminated against minority students by not taking into account their cultural background (Mercer, 1979). This study will deal with the issue of nondiscriminatory testing procedures which are both time conserving and sensitive to the cultural background of the child.

Few issues are as troublesome to concerned professionals as the identification of assessment procedures which offer assurance of not discriminating on the basis of race or culture (Jensen, 1970). Statistics document the highly disproportionate number of Blacks, Chicanos, and other minority children in special education classes. This selection has been attributed to assessment procedures which, based upon traditional testing instruments,

have misrepresented the abilities of minority group children (Sterhouse, 1967).

Focus upon nondiscriminatory assessment has recently occurred with the implementation of PL 94-142 (Education for all Handicapped Children Act of 1975), specifically that portion of the law which states:

Procedures to ensure that testing and evaluation materials and procedures utilized for the purpose of evaluation and placement of handicapped children will be selected and administered so as not to be racially or culturally discriminatory. Such material or procedures shall be provided and administered in the child's native language or mode of communication unless it is clearly not feasible to do so, and no single procedure shall be the sole criterion for determining an appropriate educational program for the child.

No longer will districts be allowed to place children in special education classes with the use of only one testing instrument.

Black and other minority children have been over-represented in classes for the mentally retarded while under-represented in classes for the physically handicapped (Oakland, 1973). This under-representation has been attributed to current assessment practices which utilize tests that have classified many minority children as mentally handicapped because they came from disadvantaged backgrounds, and not because they were handicapped (MacMillan & Meyers, 1977).

PL 94-142 does not mandate the use of specific test instruments. It was left to the discretion of the school districts to implement the law (Sammel & Heinmiller, 1977). A key question for the districts appeared to be whether test scores meant the same thing in terms of their prediction of academic performance for those who were disadvantaged as they did for those who were not (Linn, 1976). For practical reasons, tests have been preferred over other tools of assessment as they are less cumbersome and time consuming (Brinson, 1976). They can also be more objective and consistent than subjective measures such as anecdotal records or charting of behavior, and therefore potentially more "fair". Thorndike (1971) suggested that "fairness" was nothing more than simple validity. This meant that a test selected appropriate people regardless of culture (Darlington, 1971).

Tests, especially IQ tests, have been under study for many years. Publishers and authors of these tests have argued the merits of these tests while some professionals in the field have questioned their usefulness (Gay & Abraham, 1973; Williams, 1974). It has been suggested that such tests should be abandoned because they reflect middle class values and contain material irrelevant to minorities. However, there is no conclusive evidence that IQ tests discriminate against minorities even though these students have been less successful on these tests than White students (Ornstein, 1977).

Mercer (1975) contended that IQ tests measured what a child has learned about the dominant Anglo culture and were a good measure of the child's current functioning level in relation to the culture of public schools. If this opinion is true, then the proper use of IQ tests can provide important data for school personnel. Used alone, however, IQ tests can be misleading as they do not assess all areas of the child's ability (Dunn, 1968). It is important that other instruments be used to supplement the IQ score to insure that any decisions regarding placement of a student include all relevant information as to his/her level of functioning. For this reason, the use of the adaptive behavior scales has been supported and encouraged (Oakland, 1973). Adaptive scales are more accurate and culturally fair than IQ tests in their evaluations. They do not rely upon "learned knowledge" for specific answers, rather they rely upon developmental milestones all children pass through to reach maturity (DeAvila & Havaasy, 1974). In using adaptive measures a child is assessed on a variety of experiences rather than on a single criterion. Mercer (1976) felt that adaptive measurement was critical to assess fully a child and his/her ability to function in a school setting. She incorporated this concept in her System of Multicultural Pluralistic Assessment (SOMPA) with the Adaptive Behavior Inventory for Children (ABIC). The ABIC provided a method

of assessing a child in his/her home environment by interviewing the child's parent.

One objective of PL 94-142 is to eliminate the use of the single criterion such as a single IQ score for placing children in special education classes. Handicapped children can no longer be identified solely by means of tests of intelligence, although this does not mean that IQ is not to be used (MacMillan & Meyers, 1977). One approach has been to use existing IQ test data together with interviews with parents and teachers. Mercer (1976) utilized this process in the System of Multicultural Pluralistic Assessment (SOMPA). Incorporated within the SOMPA was an Estimated Learning Potential (ELP) component which utilized IQ test scores in conjunction with the child's ethnic, social, and economic background. This was intended to more accurately reflect a child's academic potential (Mercer, 1976). The SOMPA also included a parent interview. This measure was called the Adaptive Behavior Inventory for Children (ABIC) and was intended to measure the child's adaptive behavior as perceived by parent.

Another alternative has been to use a behavior scale, such as the Hahnemann Elementary School Behavior Scale (HESB), coupled with existing test data. A behavior scale such as the HESB filled out by the classroom teacher affords a quick, approximately 10 minute, first-hand

observation of the student in the academic environment. Any of these approaches will meet the ultimate goal of a testing program under PL 94-142, i.e., nondiscriminatory education and the proper placement of all handicapped children in programs to meet their educational needs.

Statement of the Problem

On October 1, 1977, PL 94-142 became effective. Children placed into special education under this law were to be assessed with culturally and linguistically appropriate tools. Since no assessment instruments have been specified by law, questions arose as to which assessment instruments would best meet the intent of the law and, indeed, be culturally fair. It was incumbent upon school districts to find assessment tools which provided the necessary information on the minority child and which also assessed on a culturally fair basis. It was also important that those tools selected provide information which was useful to classroom teachers.

Many proposals have been made as to how this assessment can best be done economically but very little empirical evidence existed to support the various approaches. Does information which teachers provide on existing scales such as the time saving HESB provide information as meaningful as that obtained from the more extensive interviewing required by the SOMPA? Specifically, do the teachers' ratings of students

behavior correlate with adaptive behavior measures on the SOMPA? Do the SOMPA ELP scores in which the child's ethnic background and experiences are accounted for and the scores of the HESB or the SOMPA ABIC provide the same information?

To further validate and specifically determine the relationship between behavioral measures such as the HESB and SOMPA ABIC, studies should be conducted to find the test performance differences between the ethnic groups. Relationships between intelligence scores measured by the SOMPA ELP scores and the Wechsler Intelligence Scale for Children-Revised (WISC-R) and adaptive measures such as the SOMPA ABIC should also be determined to find if there are differences in scores among Black, White and Chicano students.

Purpose of the Study

This study investigated the correlation between the abridged version of the System of Multicultural Pluralistic Assessment (SOMPA), the Wechsler Intelligence Scale for Children - Revised (WISC-R) verbal and performance and full-scale scores and the Hahnemann Elementary School Behavior Scale (HESB). The purpose of this study was to determine if information from the abridged version of the SOMPA was redundant of information on the HESB and provided the same information had the WISC-R been used alone. If the information is redundant then a low cost

alternative could be used without discriminatory implications.

Significance of the Study

Answers to the above questions would seem to have a direct impact on the selection of students for special education. Findings from this study would suggest that teachers' observations might provide a basis for selection of students which do not rely completely upon time consuming assessment provided by the psychologist and/or the parent. If this method of assessment proved viable, many hours of professional time could be saved and utilized for diagnostic-prescriptive purposes. Parents could spend the time now required in long interviews more profitably by observing their children in classrooms and/or helping the teachers as volunteer aides. This procedure would also help the teachers by enabling them to concentrate their observations on those behaviors found to be most relevant to academic success.

Rationale

Since the Sacramento City Unified School District (SCUSD) presently uses the Wechsler Intelligence Scale for Children-Revised (WISC-R) in conjunction with other academic assessment tools for placement of children in special education classes, it would be useful to compare the results obtained from this test with those obtained from the SOMPA and the HESB. The SOMPA, which includes

the WISC-R as a part of the assessment process, has been suggested by the State Department of Education as the test to assess culturally different children for special education.

The SOMPA incorporates a medical model, a social model, and a pluralistic model. These three models require five hours for completion. The medical model incorporates six tests: Physical dexterity tasks, Bender Gestalt, health history inventories, weight/height, vision and hearing. The health history inventory requires a 30 minute parent interview to complete.

The social system model addresses the issue of social deviance. The two SOMPA instruments that measure the social system behavior are the ABIC and the WISC-R. The ABIC estimates a child's role performance in six areas. A parent is asked to evaluate the child's competence in: the family role, the community role, peer group role, student role, earner/consumer role, and self maintenance role. The ABIC assessment requires 60 minutes to complete with the parent while the WISC-R requires an additional 75 minutes.

The pluralistic model estimates the learning potential of the student by comparing individuals against individuals from the same sociocultural environments. Comparisons made among individuals from similar

experiential backgrounds on tests such as the WISC-R allow for assessment of the potential for learning. In order to make comparisons, a student must be located in his/her particular "sociocultural space". The sociocultural scales measure: socioeconomic status; degree of Anglo cultural assimilation; and degree of integration into Anglo social systems. Once this location is determined by the sociocultural scales, a normal distribution of WISC-R scores is found for that sociocultural group by multiple regression procedures. This distribution sets the continuum for comparing WISC-R scores. The student's relative standing in this predicted sociocultural distribution of WISC-R scores provides an index of Estimated Learning Potential (ELP).

Because of the time required to administer the complete SOMPA and the limited professional staff of SCUSD available for assessment of children in special education, an abridged version of the SOMPA was used in this study. This abridged version included the SOMPA ABIC and SOMPA ELP i.e it included the social system and pluralistic models (incorporating the WISC-R). The ABIC and ELP were chosen as they are the two sections of the SOMPA which most directly address that section of PL 94-142 concerning non-discriminatory testing requirements.

This study analyzed data obtained from LH and RSP teachers of 30 Black, 30 White and 30 Chicano students in

the fourth grade Learning Handicapped (LH) and Resource Specialist Program (RSP) classes of the SCUSD. Fourth grade age children were chosen because of the relatively large number referred for special education (Swerdlik, 1978) and because those of fourth grade age were chiefly referred for academic and behavioral reasons rather than for emotional needs (Richardson, 1976). RSP students were considered to need only part-time remedial help, while LH students required a full-time program in which more than 50% of their time was spent in a self-contained special education classroom.

The SCUSD does not use medical information directly in its placement of children for the LH or RSP classes. If the child's medical problems are extensive, he is placed into special classes for his particular handicap such as: Blind; Deaf/Hard of Hearing; etc. Thus, the medical model was not administered. The students in this study, because they were drawn from the LH and RSP classes exclusively in which physically handicapped children are not included, did not have data on these tasks and scales.

The HESB, which can be completed in approximately ten minutes by the classroom teacher, does not require the presence of a psychologist or a parent. It deals with observable behaviors. The HESB has several advantages: a) it requires little time to complete; and, b) no parent

conference is needed for the scale to be completed. In the interest of time and additional relevant information, the HESB affords the classroom teacher and the school psychologist a useful means of assessing the student's behavior which most closely correlates with academic achievement (Spivack & Swift, 1972).

Theoretical Base of the Study

The public schools as they are organized today are a response to the needs of our society to meet the requirements of all pupils within the educational setting. In order to meet these requirements, testing was initiated. The originator of this testing movement was Alfred Binet (Mercer, 1974). Binet's original "intelligence" test was designed to identify those children who would not succeed academically and were in need of special classes at schools for the retarded (Richardson, 1976). When the idea of intelligence testing was adopted in the United States, its main goal was to predict which children would be successful in the public schools and which should be institutionalized (Mercer, 1974).

Success or failure of a student within a school setting was often dependent upon the scores achieved on an IQ test. Often the child's background was not considered, although it has been known since Binet's time that social status and cultural background influence IQ test results

(Eells, Davis, Havighurst, Herrick & Tyler, 1951). It has been a point of debate whether IQ tests alone did not measure the "total" abilities a child possesses. In order to fully assess a child, he/she must be seen from not only an intellectual point of view but also a social and cultural point of view. This procedure is especially important for minority group children (Mercer, 1976; Oakland, 1976).

Developed after the Binet IQ test were three approaches to assessment. These approaches assessed children from different perspectives, including the traditional IQ measure. Each was viewed in relationship to its theoretical basis for development.

SOMPA. The SOMPA was an outgrowth of a study done between 1963-1965 to locate mentally retarded persons in the Riverside, California area. Mental retardation was originally seen as a pathology within a medical model. It was found that a medical model was inadequate to explain the problems in identifying the mentally retarded, however, and a social system model was developed to explain the discrepancies among those identified as mentally retarded and those considered normal (Mercer, 1971).

It was discovered that:

1. Public Schools did most of the labeling of mental retardation.
2. Public Schools relied mainly upon IQ tests in making their diagnosis.

3. Children were labeled as retarded chiefly in the elementary grades.
4. Teachers were the primary referral source for children and these children were tested by psychologists.
5. Black and Chicanos were more likely to be scored or labeled retarded than were Whites.
6. School age children, Black or Spanish surname and of lower socioeconomic class, were over-represented in classes for the retarded.
7. Children who were White and from higher economic status were underlabeled.
8. Children from lower socioeconomic status were more likely to be "situationally retarded" i.e. retarded in school from 8:30 - 3:00, but regarded in the home and community as normal.
9. Lay persons tended to label only the physically and mentally retarded not the learning handicapped child as mentally retarded.

Based on information obtained in the aforementioned study Mercer developed the SOMPA to meet the following criteria:

1. A person is retarded if he/she fails both intellectually and adaptively.
2. An IQ test cannot be the sole criterion for identification of retarded children.
3. The measure of adaptive behavior must:
 - a. Cover a wide range of social role performances;
 - b. Be reliable enough to measure children of all cultures;
 - c. Have been normed on a representative sample of the general population;
 - d. Be representative of the norms of the social system.
4. The method must distinguish between the socioculturally modal person who is subnormal in adaptive behavior and subnormal in IQ test performance from the socioculturally nonmodal person who demonstrates the same low ability. It must also have pluralistic norms so that a child could be compared with others from similar socioeconomic backgrounds.
5. A child must be seen from an adaptive as well as an intellectual level to determine his/her potential. Children who are low functioning intellectually

but normal adaptively must be seen in light of both measurements, not just intellectually.

Hahnemann Elementary School Behavior Scale (HESB).

The HESB was developed by Spivack & Swift (1969b) to aid teachers and school personnel in evaluating student behaviors in the context of a need for a more articulate understanding of the organization of a typical classroom behaviors. It was assumed that problem behavior indicated that the child was not meeting the demands of school. It was further assumed that the attitudes and motivations regarding learning are important to educators (Spivack & Swift, 1972).

The scale served as a means to identify certain behaviors that help or hinder achievement. In addition, it served to measure change in behavior as a function of remediation, it aided in proper placement, and helped in developing alternative teaching approaches. Items were chosen which covered a wide range of behaviors and included both adaptive and maladaptive behaviors.

The developers of the HESB concentrated on avoiding ambiguity and on including those factors contributing to academic success. The factors considered to correlate most highly with academic achievement were independent learning, intellectual self-sufficiency, originality and reflectiveness (Spivack & Swift, 1972).

Spivack and Swift (1969a) reported that a child who underachieves is lacking in adaption to the demands of the classroom environment, and emphasized that the child must be seen in total. To do this various behaviors were observed, and twelve classroom behaviors were tapped as being present in both regular and special education classes. These included: classroom disturbance, impatience, disrespect/defiance, external blame, achievement anxiety, external reliance, comprehension, attention/withdrawal, irrelevant-responsiveness, creative-initiative, need for closeness with the teacher, and need for achievement recognition. The HESB measured these behaviors and included a profile showing the child's strengths and weaknesses behaviorally. While this scale is not widely used for identifying special education students, it could prove beneficial to assess children from a teacher's expectation level. It would be helpful to know whether teacher judgement of a child's performance correlates with extensive testing procedures. If such a correlation could be found valuable time could be saved when assessing children for special education classes.

Wechsler Intelligence Scale for Children-Revised (WISC-R). The WISC-R was developed to measure a child's ability to cope with the world around him (Petrosko, 1975). Wechsler (1974a) believed that intelligence could

be measured objectively and that a meaningful and useful index of person's mental capacity could be determined.

Wechsler (1974a) considered intelligence to be global, a multi-faceted entity rather than a uniquely defined trait. The WISC-R avoids singling out one ability as being most critical and it avoids equating general intelligence with intellectual ability. The WISC-R attempts to probe intelligence in as many ways as possible. Non-intellectual factors such as drive, attitude, and sensitivity to surroundings operate at all levels and affect capabilities. Since the WISC-R is individually administered, the examiner should be aware of these factors.

Wechsler (1974b) believed that a verbal and performance subdivision is necessary to measure intelligence. Component tests, six verbal and six performance, are weighed based on the theory that intelligence measures are best regarded as assortive and not hierarchical. This concept does not suggest that all measures utilized in the WISC-R are effective. Wechsler suggested that each is necessary for a fuller appraisal of intelligence.

The existing research concerning criteria in the assessment of children so that it is non-biased suggested that: a) sociocultural background, adaptive behavior, observable behavior, in addition to intellectual potential were critical in proper placement of children into special

education classes; b) intellectual potential should not be the sole criteria for placement; c) minority students must not be seen as separate populations, but as one group in order for non-discriminatory testing to occur; d) parents and teachers who live and work with minority students considered for special education were an integral part in the assessment process.

No conclusive evidence has been presented which indicates that the IQ test alone can assess a child's potential in all areas. His social functioning as well as his school behavior are an integral part of his academic success or failure (Spivack & Swift, 1972). A method of assessing all related areas would be beneficial in determining the proper academic setting for meeting the student's needs.

Hypotheses

The hypotheses to be investigated in the present research are:

H₁. There will be a positive correlation between the teacher scored HESB and the psychologist scored SOMPA ABIC.

H₂. There will be a positive correlation between the ELP verbal, performance and full-scale scores and a) the HESB; b) the SOMPA ABIC.

H₃. There will be a positive correlation between the WISC-R verbal, performance and full-scale and a) the HESB; b) SOMPA ABIC.

H₄. There will be significant differences among the means of the Blacks, Whites and Chicanos on a) SOMPA ABIC; b) SOMPA ABIC subtest scores; c) SOMPA ELP verbal, performance and full-scale scores; and d) the HESB.

H₅. There will be differences among the number of Blacks, Whites and Chicanos predicted for special education by the SOMPA ABIC, SOMPA ELP or WISC-R.

Definition of terms

For the purpose of this study the following definition of terms will be used:

Minority children: Groups of children who share certain racial and ethnic similarities which are different from the dominant group. In this study minorities will include Blacks and Chicanos (Oakland, 1976). Parents who identified their child as "Chicano" when specifying their ethnic background on their school enrollment form represented that group in this study. The Chicanos included in this study are those students whose first language is English and who may or may not have Spanish as a second language. Children with a primary language other than English are not eligible for LH or RSP placement in SCUSD.

The SOMPA-abridged version: The abridged version of the SOMPA included the administration of the Adaptive Behavior Inventory for Children (ABIC) and the Estimated Learning Potential (ELP). The SOMPA ABIC, including the administration of the subtests and the computation of a

total score, requires an hour interview with the child's parent regarding his/her adaptive behavior in the home. For the purposes of this study, the ABIC will refer to the total score unless otherwise stated. The SOMPA ELP includes an interview of about 10 minutes with parents of the student regarding the parent's own socioeconomic background. Also incorporated in the ELP is the administration of the WISC-R requiring an additional 75 minutes.

Hahnemann Elementary Behavior Scale (HESB): A teacher completed behavior scale which requires ten minutes to complete. This instrument involved recording on a numerical scale the frequency of occurrence of a particular observable behavior.

Learning Handicapped (LH) students: LH students are a subset of special education children. They function at or below the 3rd percentile based on chronological age in two or more academic areas as assessed by specific standardized tests. Included in this criteria for LH placement is an exceptional placement. Exceptional placement calls for a "staff judgment" which occurs when the entire assessment team and parents feel the student's needs can best be met by LH placement. LH students require special education assistance in a self-contained classroom for more than half of their school day.

Resource Specialist Program (RSP) students: These students are also a subset of special education but require less academic assistance. They are functioning at two or more levels below the grade level expected for their chronological age but they are not at the 3rd percentile necessary for LH placement. These achievement lags may be demonstrated in two academic areas and must be associated with a learning handicap as measured by standardized tests. These students required only part-time special education assistance for up to 50% of their day.

Summary. The problems to be studied were the correlation between a) the teacher-scored HESB and the SOMPA ABIC; b) the ELP verbal, performance and full-scale results and the HESB and SOMBA ABIC; and c) the WISC-R verbal, performance and full-scale results and the HESB and SOMPA ABIC. In addition, a validation study was conducted to determine whether there was a difference among the means of the three ethnic groups on the SOMPA ABIC, SOMPA ABIC subtests; ELP verbal, performance and full-scale scores; and the HESB. A final hypothesis was offered concerning the differences among the number of Blacks, Whites and Chicanos who were identified for special classes by the SOMPA ABIC, SOMPA ELP or WISC-R. The importance of accounting for cultural differences when assessing

students was discussed. The general hypotheses tested in the present study were identified and definitions of terminology was also provided. A review of the literature relevant to the present investigation will be presented in the following chapter.

CHAPTER II

REVIEW OF THE LITERATURE

A review of the research and related literature relevant to the non-discriminatory assessment practices when evaluating minority children for special education classes is presented in the following pages. Material reviewed will be organized in five sections: a) identification and labeling minority children for special education; b) the use of IQ tests to measure intellectual potential in the evaluation process; c) the use of adaptive scales for special class placement; d) an alternative to the use of a single assessment tool for placement of students in special education: The System of Multicultural Pluralistic Assessment (SOMPA); and e) the use of teacher observation scales in the assessment procedure.

Identification of Special Education Minority Students

The importance of accurately identifying minority students for special education and properly labeling their abilities occupies a major role in special education today. PL 94-142 addressed this issue specifically in the section of the law devoted to non-discriminatory testing. The effects of labeling upon minority students can best be demonstrated by reviewing the history of labeling and the place it occupies in special education today.

History of labeling. Assessment, labeling, and placement of students has long been of concern to educators. The most salient controversy has been over labeling students to exclude them from regular programs and to put them into classes for special education (Childs, 1976). The concern about labels and stigma in special education has been advanced by minority groups, particularly Blacks and Mexican-Americans, who pointed to the disproportionately large numbers of their members in special education classes (Jones, 1972).

In 1840, mandatory school laws went into effect. Prior to this, schools were chiefly church sponsored, and for school children who could not achieve, various forms of special schools arose. These special schools for deaf, blind and moderately handicapped were residential in nature. These institutions were established to separate the "different" from the "normal" (Dunn, 1968).

By mid 19th century, special day programs were publicly funded to provide general education for handicapped children, and, by 1911, about 100 large cities had such classes (Dunn, 1968). These classes were a result of parent pressure and teacher requests to find alternative placement for problem students. Those students who were placed at the teacher's request were classified as retarded, behavior disordered or specific learning disabled. As a result, students were either a part of the

regular program or completely excluded by placing them into special self-contained day schools (Richardson, 1976).

With the compulsory education laws of the middle 19th century and because of pressure to serve students with a broader range of individual differences, schools became more sophisticated and imaginative. In order to sort and classify, children were viewed in terms of their age, socioeconomic status, skin pigmentation and ability (Dunn, 1968; Mercer, 1976; Richardson, 1976).

This exclusion from regular educational programs served to relieve teachers of those students whom they did not want to teach (Dunn, 1968). From 1874-1947, exclusion was accomplished through various specific sanctions against integrating racial minority children with White children. This segregation was accomplished by health and character sanctions mandated by law, which appeared to be based in part upon excluding undesirable "foreign" cultures from segregated schools (Mercer, 1976). In 1947 segregation statutes were repealed from the Education Codes. By historical accident, special education classes for the retarded were mandated the same year. As a result, segregation was accomplished through the use of the special education class. Educators saw that they could segregate students and at the same time receive additional money for it. When suspension as a means of excluding non-achieving or misbehaving students was

eliminated in 1964, special education became the dumping ground for these students as well (Oakland, 1977). This practice of using special education classes as a means of excluding "undesirables" continued until the parents of these students, who had been placed in special classes, filed lawsuits against the education system. The family members contended that their children had been discriminated against and that their children did not need these special classes (Melcher, 1976). These suits became, in essence, a trial of the concept of labeling children for special class funding (Dunn, 1968; Mercer, 1976).

In 1968, the case of Arreola v. Board of Education was filed on behalf of eleven Mexican-American children. The parents of these children believed their children were not mentally retarded and that special classes did not teach their children. These parents further contended that there had been no due process, that IQ testing did not take into account cultural differences, and that the curriculum was not meaningful. The parents were awarded judgment (Mercer, 1977).

In 1970 the case of Diana v. Board of Education came to trial in Northern California. The court found that seven of the nine children in an Educable Mentally Retarded (EMR) classroom were inappropriately labeled due to the use of discriminatory IQ tests. The court decreed that testing must be done in the native language of the

child, as was ordered in the case of the Mexican-American children. For the Black child, testing was questioned due to value content and norming procedures (Oakland, 1973).

As a result of the Diana case, the State Department of Education conducted a study entitled, "The Mexican-American Research Project." This project involved testing 47 EMR Chicano students from two geographical areas. These EMR students were retested with the Spanish version of the WISC-R. Thirty-seven of the 47 were found to have IQ's of 75 or above on the Spanish WISC-R. As a consequence, Resolution 262 passed the California Legislature requiring re-evaluation of all EMR students. Following this re-evaluation, there were 3,381 fewer Spanish-surnamed students in EMR classes, 2,769 fewer Blacks and 1,822 fewer Whites (Laosa, 1974; Oakland, 1974).

In 1972, Larry P. v. Wilson Riles brought the plight of Black children, who had been mislabeled as EMR, to the forefront. These parents claimed that Blacks, placed into special classes on the basis of an IQ test, were inappropriately classified. The plaintiffs contended that existing IQ tests were not relevant to the Black population because they reflected White middle class values and were not normed on the Black population. This case, still pending at this time, has caused major concern about labeling a student on the basis of a single IQ score.

These lawsuits served to point out the inherent problems in the labeling process. When there was no clear-cut means for identifying special education students, confusion resulted. Educators lacked a single, rational scientific basis for distinctions made by labeling (Moss, 1973). Thus the questions arose: Why label and for what purpose? Are the problems of labeling worth it?

Labeling: purposes and problems. Labeling became an end in itself in special education when a "labeled" child served as a means for obtaining additional monies. Those labeled were forced to play the role for which they were labeled and people's responses to them tended to be governed by the conception that label held for them (Swan, 1977). The use of labels such as "culturally deprived" or "socially disadvantaged" led to assumptions about children that consequently reduced the effectiveness of the original label. Individuals tended to perceive themselves as they were labeled. Thus, if labeled "retarded," the child behaved in a "retarded" way (Goffman, 1963).

Labels were meant to be a means to facilitate communication about individuals or categories of individuals; however, labeling often led to differential treatment and kept students, especially minorities, from educational opportunities. Thus, the purposes of labeling were overshadowed by the problems this process created.

Burke (1975) pointed out that labeling a child, especially a Black child, perpetuated society's belief that Blacks were less able to achieve high goals than the rest of society. Many (Jones, 1972; Kolstoe, 1972; Begab & Richardson, 1975; Henderson, 1975) believed that labeling harmed a child's self-concept, that labeling segregated the races and that it impeded the child's development. The disproportionate numbers of Blacks and Chicanos found in special classes for the retarded circumstantially supported this belief (Mercer, 1972b; Richardson, 1976; Oakland, 1977). The labels, thus institutionalized, became social devices through which people oriented themselves. A whole series of behaviors and beliefs operated under the term "label" (Henderson, 1975).

Three-fourths of the children labeled as learning handicapped or behaviorally disordered came from disadvantaged homes (Dunn, 1968). If labels were to be meaningful, they should also help remedy a need. However, labeling tended to become an exclusionary process, rather than a remedial one (Gallagher, 1972). Less than 10% of the children placed in special education classes were returned to the regular program. By 1963 approximately 90% of the handicapped children were separated from their peers by receiving help in a self-contained class (Childs, 1976). Mercer (1974) argued that labeling procedures violated the right of children to be assessed as multi-

dimensional persons, their right to be fully educated, their right to be free of stigmatizing labels, and their right to cultural identity and respect.

Problems and Effects of the Labeling Process

Serious questions about screening, evaluation and placement procedures for children labeled as needing special education have arisen (Weintraub & Abeson, 1974). Criteria for placement in special education had been unclear and as a result, many children were chronically categorized as handicapped; once labeled handicapped they were always considered to be handicapped (Gallagher, 1974). Thus, unless children, specifically minority children, were evaluated with appropriate assessment tools, taking into account a child's background or culture, there was a danger of continued misclassification for much of that child's school career (Mercer, 1975).

Children labeled by public school educators outnumbered those labeled by people in other institutions. This labeling resulted from critical decisions made by teachers, principals, and psychologists at different phases in the evaluation process. Usually the child selected for evaluation had been selected by means of a screening device or system. Yet, in reviewing the screening procedures of various schools, children identified "at risk" had been selected on the basis of fragmentary and selective test findings (Keogh, 1973).

The result was a disproportionate number of lower socioeconomic Black and Chicano students being placed in special education classes (Mercer, 1972b).

Concerned educators questioned the use of labeling. On the one hand, labeling served to classify and diagnose conditions which could be treated. It also provided direction for further research to gain more information about the cause, prevention, and treatment of these conditions. Labeling also helped obtain additional funds through legislation. Excessive use of labeling, on the other hand, could be a means of protecting and placating professionals by giving a problem a name, such as minimal brain dysfunction which can become an end in itself. This use of labeling then eliminated the need to provide remedial help for these children (Gallagher, 1976). Labels also served to keep minority group children from opportunities by focusing the problem on individuals, thereby ignoring the larger, more complex social issues (Loasa, 1973; Oakland, 1974).

While the battle over labeling criteria and effects continued, the minority student was faced with the reality of the labeling issue, especially in special education. Special education has not been known for its responsiveness to culturally different students (Semmel & Heinmeller, 1977; Kaufman, 1979). Teachers have been known to refer students for special education classes

based solely on their cultural differences, without taking into account their academic achievement (Bernal, 1977). Black psychologists were quick to point out that the White middle class set the standards by which all children are measured. If a Black child did not conform to these standards, the child was seen as handicapped (Jackson, 1975). One of the consequences of being a Black in the American society was that Blacks were forced to wear inferior labels (Ladner, 1975).

Chicano students have suffered the same fate. They have traditionally been over-represented in the mentally retarded classes and under-represented in the gifted classes (Meeker, 1973; Mercer, 1975). This segregation was caused in part by the presence of a second language and a wide variance in the socioeconomic status of the Chicano population (Laosa, 1973; Oakland, 1973; Mercer, 1976). The inappropriate use of materials and tests has resulted in children being mislabeled, and labeling by schools has had a long reaching effect. Individually, in many cases, this label followed the child the rest of his/her school career. Collectively, labeling has resulted in legal challenges to the labeling process and caused a state legislative response. PL 94-142, the Bill of Rights for Handicapped Children, addressed this issue at the Federal level, specifically in the non-discriminatory testing section of the law. As a result of this law, the Office of Education issued a directive setting

forth the requirements which assured that children were not misclassified or unnecessarily labeled as being handicapped because of inappropriate selection, administration, or interpretation of assessment materials (MacMillan and Meyers, 1977).

Summary of the labeling controversy. Labeling practices for minority group children have been influenced by many sources. Parental concern, judicial action and legislation have challenged these practices. While labeling served to place children in special classes where they might receive special help, too often these classes became dumping grounds for students the educational system did not want included in the regular program. In many instances, children, once labeled, were thereafter segregated from the mainstream of education and, as a result, were never educated to their full potential. Assessment procedures utilized in labeling children, especially minority group children, have thus come under sharp criticism and attack. This study will include an investigation of the validity of certain assessment procedures currently practiced as well as a study of the use of a teacher assessment device for placement of Special Education students.

The Use of the IQ Test to Assess the Cultural Minority

The use of the IQ test as the major assessment tool

for placing children in special education has been supported and criticized since the testing movement originated. Much of this argument has centered around the assessment of minority group children.

History of the testing controversy. The origins of current practices and procedures regarding assessment of abilities began with Binet in 1905. Binet was asked by the French Government to develop a test to identify those children who would not succeed academically in the regular school (Mercer, 1972a). Binet was interested in measuring those abilities which were most critical in daily school functioning (Mercer, 1974). If the children were unsuccessful on the Binet measure, they were placed in special schools for the retarded (Cronbach & Suppes, 1969).

Because of the success of the original Binet test in identifying children who could not achieve in the regular schools, interest in testing grew. At the beginning of World War I, the American Psychological Association formed committees to develop a test for measuring mental abilities. In May of 1917, one such committee assembled to develop an examination designed to segregate military recruits in terms of their potential as officers. This group of seven psychologists decided that to serve the interests of the military, psychological tests offered the most practical method of evaluation (Laosa, 1973). Within weeks, this group, including Cattell, Yerkes, and Terman, developed the Army Alpha Test. This test successfully

identified men who made satisfactory officers (Mercer, 1972a; Childs, 1976). As a result of this success, civilian testing was recommended.

Because schools afforded access to a large number of people, Terman felt that teachers should utilize tests to measure students' mental ability (Cronbach & Suppes, 1969). Individually administered intelligence tests were an important innovation in developing and legitimizing the idea of individual differences. The notion of individual differences gave intelligence testing credibility as an instrument of social reform (Marks, 1977). Terman's individual IQ test, the Stanford-Binet (S-B), published in 1916 was widely used; and immediately after the war, a group test was published. Within 30 months after first publication, some 4,000,000 children had been tested with the use of a group IQ test (Cronbach & Suppes, 1969).

Tests were practical and seemed objective so they fit society's needs at the time. Many states in the years between 1916-1918 used group IQ scores to identify mentally retarded people. Those found to be retarded on these group tests were sterilized. Over 27,000 people, mostly foreign born, were sterilized - 12,180 in California (Marks, 1977). While the group IQ test was popular in determining the intellectual abilities of a large group of people, it was the individually administered IQ test which received the most attention (Richardson, 1976).

From 1945-1953 controversy waged as to the usefulness of individual IQ tests. Eells, et al. (1951), maintained that these tests underestimated the abilities of working class children. Their studies showed that lower class children consistently scored lower on their tests than did middle or upper class children. Questions as to the fairness of these tests arose. The controversy continued into the 1960's when Federally funded programs, such as Head Start, were mandated. When IQ tests were used for determining the children to be involved in these programs, discrepancies arose (Williams, 1974). These discrepancies in results were blamed by many on the cultural bias of the tests used (Henderson, 1975; Hilliard, 1977).

Supporters of testing wanted the tests to be used to open doors for talented poor children and adults (Cronbach & Suppes, 1969) but Mercer (1974), Oakland (1977), Chan and Rueda (1979) have reported the low numbers of minority children in the gifted program and the excessive numbers in special classes for low achievers. Discrepancies such as these were a target of PL 94-142 and its provision concerning non-discriminatory testing procedures in evaluating and placing minority children. This provision reflected an attempt to incorporate court rulings from lawsuits pertaining to the labeling of ethnic minority children into school practice (MacMillan & Meyers, 1977). In such litigation, the courts consistently ruled that

individual tests of intelligence discriminated against minority children. These court cases dealt with the question of what constituted discriminatory testing when IQ tests were utilized.

Early challenges to mental testing. Intelligence tests have caused the greatest furor, since it was the IQ test which led to inaccurate classification and placement of minority students in classes for the retarded (Gerken, 1978). It was not difficult to find fault with tests and, regardless of the reason, IQ tests became an educational issue (Williams, 1974; Ebel, 1975; Mercer, 1975).

Historically, tests of intelligence or measures of academic aptitude have been a basis for screening, selection and placement of students into special classes. Standard IQ tests have a strong relationship to school achievement (Keogh & Becker, 1973). While the level of intellectual functioning is assumed to be a major factor in special class placement, it is recognized that IQ tests do not identify all the children who need these classes (Rubin, Krus, & Balow, 1973). Nevertheless, IQ tests are the major factor considered when children are placed (Oakland, 1974; River, Mitchell, & Williams, 1975).

Ability tests have been attacked by some observers for suppressing individuality (Wesman, 1968). Williams (1974) contended that IQ tests were a reflection of the White middle class and reflected the values of Whites. Therefore they were unfair to minorities because they were

misinterpreted and misused. Tests of ability have also been challenged because they measure rigid and static characteristics (Rivers, Mitchell & Williams, 1975).

An important theme of the 1920's, still in vogue at present, is to determine whether pupils who differ should be sorted into different kinds of education with the use of an IQ test (Cronbach, 1975). In early studies of data from the Army Alpha tests, Brigham concluded that immigrants were "morons", unable to do more than perform common labor tasks (Cronbach, 1975)

From 1945-1953, sociologists contended that tests underestimated the ability of students from low socioeconomic classes (Cronbach, 1975). Eells et al. (1951) conducted studies which concluded that low socioeconomic children scored consistently lower on IQ tests than did children from a more enriched background.

Within the last decade, Blacks, Chicanos, and other minorities have severely criticized the use of the IQ test to assess for special class placement (Oakland, 1973). Support for this view came from the Black Psychologists Association, La Raza and, somewhat later, the National Education Association. While actions by these groups were instrumental in promoting changes, most school districts continued to disregard their concerns. Court cases were a result (Oakland, 1973). Some court challenges centered around the use of the IQ test as the sole criterion for placement into special classes. The discussion of spe-

cific IQ tests and their role in special class placement became a target for changes.

Questions of cultural fairness and validity: major problems in IQ testing. In 1968, at a meeting of the American Psychological Association, the Black Psychologists Association presented a manifesto which asked for a moratorium on testing with students having disadvantaged backgrounds (Cleary, Humphreys, Kendrick, & Wesman, 1975). Their case centered around issues raised by Jensen and others that IQ tests showed that cultural minorities were inferior (Gay & Abraham, 1973; Jackson, 1975). The Black Psychologists Association maintained that tests used for identifying Black children were not culturally fair or valid with the Black population (Jackson, 1975). However, Ornstein (1977) disagreed with this contention. He believed that IQ tests were important because they measured ability and innate capacity, regardless of culture.

Cleary (1966) contended that a test was fair if it predicted specific outcomes measured by the test. Whether the IQ was equally fair for predicting academic achievement for minority students, or whether these tests underpredicted or overpredicted for certain minority groups was the question. A test was considered discriminatory if it classified a child as handicapped when he/she was not, or if test results denied special class placement to a child who had need for such

treatment. Mercer (1976) detailed an analysis of systematic cultural bias which occurred in diagnostic procedures. This bias resulted in distributions of IQ scores for Blacks being one standard deviation lower than Whites.

Another essential concept in the evaluation of a test is its validity. Content validity is relevant when the tester wants to know how well a subject knows particular information. This concept is particularly important for achievement tests. Construct validity measures the degree to which a person possesses a trait or quality. Criterion related validity measures the extent to which test scores are related to a socially important criterion. The problem of establishing these three types of validity is difficult on any particular test (Darlington, 1971).

It was asserted by some that IQ tests did not have good predictive validity with non-dominant ethnic groups (DeAvila & Havassy, 1974; Bernal, 1977). Mercer (1976) demonstrated that traditional assumptions about IQ tests which diagnosed a general trait were not applicable for minorities. While majority-minority differences in scores might be due to factors inherent in the person, the fact that minorities may substantially increase their scores by employing ethnic examiners and utilizing different testing procedures cannot be overlooked (Jackson, 1975; Bernal, 1977).

Studies have shown that the ethnic background of the evaluator is important. Black students have been shown to perform poorly due to adverse effects of having a White test examiner (Watson, 1972). Kaufman (1979) and Sandoval (1979), however, found that the ethnic membership of the examiner was not a critical factor in increasing test scores; what was critical was proper testing procedures. Even tests designed specifically for use with one cultural group were inadequate in measuring all facets of ability. Bernal (1977) found that Chicanos are victims of test abuse in that the tests used have not included Chicanos in the test development, and language background is not considered. As a result, cultural fairness of a test has many aspects, one of which is culture-fair selection.

There are many definitions of culture-fair selection. Each definition implied a particular set of value judgments (Peterson & Novack, 1976). The concept of test bias is similar to the concept of test validity in that there is no one measure, no one procedure that in and of itself allows one to label a test as either biased or valid (Sandoval, 1979). After examining available facts, individuals may arrive at different judgments about bias.

Cleary, et al. (1975), defined a test as biased for members of a minority group if the criterion score predicted from the common regression line is consistently too high or too low for minority members. Thorndike (1971) proposed that qualifying scores on tests should be

set at levels that will select the same proportion of minority members that would be selected on a test which otherwise has good validity. Cole (1973) argued that all applicants who were capable of being successful, should be selected, regardless of their minority membership.

Given these definitions, it is difficult to find any test which was fair to all groups. Documentation showed that IQ tests consistently discriminated against minority groups (Mercer, 1972b; Jackson, 1975; Williams, 1975; Swerdlik, 1978). Darlington (1971) felt that the term "cultural fairness" was impossible to define and suggested that the concept of cultural optimality be employed. Regardless of the point of view, there did not appear to be one single alternative to the definition of selection fairness (Hunter, Rauschenberger & Schmidt, 1978).

IQ tests. The instruments used for measuring the intelligence of students have varied greatly (Darcy, 1963). IQ tests were used in many schools as the basis, sometimes the sole basis, for assigning students to special classes (Eells, Davis, Hauighurst, Herrick & Tyler, 1951). It has been shown in numerous studies that minority group children suffer unnecessary labeling with the use of intellectual assessment tools (Mercer, 1976; Rincon, 1976; and Swerdlik, 1978).

The questionable use of verbal IQ tests with Mexican-American children was shown by a study where results of non-verbal IQ correlated higher with grade

point average than did verbal IQ test results. Scores on tests given to Chicano children depended upon the bilingualism of the examiner, ethnic membership, and style of the test administration (Gerken, 1978). Although bilingualism and its effect upon achievement have been widely studied, it has been difficult to isolate the bilingual influence from other factors. Studies of Spanish-English bilinguals in the U.S. over the past ten years have shown that bilinguals receive significantly lower scores on verbal IQ tests. In one study Chicanos scored lower on verbal tests even when the directions were given in Spanish (Darcy, 1963). A study in Austin, Texas, contradicted this finding. Oakland (1979) found that Chicanos measured by the use of an IQ test were found to have higher potential than were those Chicanos measured by other assessment instruments.

Critics of IQ tests pointed out that these tests were unfair to minorities and invade their privacy of person (Mercer, 1972b; Begab & Richardson, 1975). This view is supported by various legal case precedents. Sandoval (1979), on the other hand, found in a study of Blacks, Whites and Chicanos that the IQ test did not discriminate against minority groups. He maintained that the IQ test was an adequate reflection of a child's functioning ability.

Cleary (1966) had observed that IQ tests correlated with socially relevant criteria. The question was, did

the IQ for the minority student measure the same thing as it did for the majority student? She determined that a test was equally valid for two different groups if the correlation between the test score and the criterion (for example, grades in school) were comparable for the two groups and the standard error of measurement were approximately the same.

Even if non-Anglo children had a lower average score on the test, some psychologists such as Kaufman (1979) and Sandoval (1979) argued that the lower scores did not mean the test was unfair or biased for non-Anglo children. Both argued that tests were the most objective means of assessing students.

In assessing students for special programs in the SCUSD, three IQ tests are used most frequently. The validity of these instruments will be discussed in the following section.

Wechsler Intelligence Scale for Children-Revised (WISC-R). The WISC-R is a widely used individually administered IQ test consisting of six verbal subscales and six performance subscales. It yields a verbal, performance, and full scale IQ score. Five of each of the verbal and performance subtests are regularly given; one subtest from each category is used only when the tester feels that one of the regularly administered subtests has not been administered in a valid manner (Wechsler, 1974a). The WISC-R has received increasing acceptance for

evaluating the general intelligence of children (Vance, Gaynor, & Coleman, 1976). The WISC-R measures "general" intelligence, but Wechsler pointed out that this was not equated with intellectual ability (Buros, 1978).

Kaufman (1979) reported that factor analyses of the WISC-R yielded robust verbal comprehension and perceptual organization factors. The verbal factors were heavily loaded on the five regularly administered subtests. Performance items, with the exception of coding, were heavily loaded on the sub-test scales. Kaufman's (1979) study concluded that the factor analysis of the WISC-R supported the validity of Wechsler's verbal and performance constructs. This conclusion meant that the factor analytic data suggested that the WISC-R measured the abilities it purported to measure for children from different ethnic cultures as well as for Whites (Darcy, 1963; Reschly, 1977; and Kaufman, 1979).

Not all critics agreed with the Kaufman (1979) study, or with Vance, et, al. (1976), concerning the fairness of the WISC-R. Swerdlik (1978) reported the scores for Chicano and Black children were consistently lower than scores for Whites. Sattler (1974) felt that there remained a gap between theories of intelligence and the ways in which intelligence was measured. Tittle (1975) felt that the WISC-R's lack of criterion related predictive validity data was a major flaw in the test development. The work of Mercer (1972a; 1974) showed the

need to examine present practices in tests used with minority populations. She did not criticize the use of tests themselves, but the use made of the results. It can be persuasively argued that the danger of identifying a child with a test that is not valid could be a serious problem (Tittle, 1975).

Stanford-Binet (S-B). All intelligence tests are direct descendants of the S-B (Anastasi, 1970). It was originally published in 1905 and has since had numerous revisions, the latest being 1960, and the test was renormed in 1972 (Sattler, 1974). The S-B contains 129 test items for ages three to Superior Adult III. The test requires skilled administration and interpretation. It is chiefly verbal in nature (Buros, 1978). Sattler (1974) classified the S-B as including the following tasks: language including vocabulary; abstract words; rhymes and definitions; auditory and visual memory; conceptual thinking and abstract reasoning; logical reasoning; numerical reasoning; visual motor; and social intelligence including social judgment and social maturity.

The reliability of the S-B has been found to be .66 for the total test. Most subtests showed test-retest reliabilities of over .90 (Terman & Merrill, 1970). Validity of the S-B was determined by correlating scores on the S-B with school achievement. These correlations with grades were between .40 and .75. Although the reliability and validity of the S-B has been found to be good,

the scores have been criticized for a) placing too heavy an emphasis on verbal and rote memory; b) providing one score (IQ) to represent the complex nature of cognitive functions; c) failing to measure creative abilities; and d) being unsuitable for testing adults (Sattler, 1974). For these reasons the S-B is rarely used for special education placement in SCUSD.

Leiter. The Leiter scale was designed to cover a wide range of functions similar to those on verbal scales (Anastasi, 1970). Among the tasks included in the test are: matching colors, shades of gray, forms, or pictures; copying a block design; completing pictures; recognizing age differences, spatial relations, footprints, and similarities; memorizing a series; and classifying animals. Each subtest is administered individually and in pantomime with no time limit. The test can be administered to people ranging in age from 2 - 18. The Leiter was reported to be a culture-free measure of intelligence (Leiter, 1948). However, Talor (1978) reported it was no more culture fair than the 1938 S-B.

Split-half reliabilities on the Leiter of .91 to .94 are reported in the manual with samples which were quite heterogeneous in age and characteristics. Concurrent validity correlations between .56 to .92 were obtained in heterogeneous groups on the S-B and WISC-R. The scale appeared to require perceptual organization and discrimination (Sattler, 1974).

The scale has been criticized for the following reasons: item difficulties may be uneven; pictures are out of date; culture fairness of the test has not been determined; abilities measured by the instrument are not clear and there are only a small number of test items at each year level. Because the norms underestimated the child's IQ, Leiter recommended that five points be added to the IQ score. While recognizing that the Leiter has a number of limitations, it was considered to be valid as an aid in diagnosing handicapped children (Sattler, 1974). Jones (1972) also suggested its possible use with children who have English as a second language. For these two aforementioned reasons, the Leiter has often been used as the "non-verbal" IQ test when measuring Chicanos for special class placement in the SCUSD.

Summary. Intelligence tests have been utilized in the assessment of minority children for special classes. They have been criticized for reflecting White middle class values and supported because they reflected the school functioning level of the child.

Critics have challenged the cultural fairness, reliability and validity of IQ tests used for minorities. The Black Psychologist Association and other groups interested in non-discriminatory assessment have called for a moratorium on the use of IQ tests, and court cases have resulted from their use. Rather consistently, courts have ruled that cultural differences mask true potential

when children come from backgrounds which are experientially, linguistically and culturally unique. Assessment of children using IQ scores has been criticized in terms of language problems, poor standardization techniques, and improper interpretations when used with minority students.

Proponents of IQ testing concluded that an IQ reflected the school functioning level, that it was valid with minorities and that IQ tests are a better and more objective measurement of a child's abilities than relying on subjective judgment. IQ tests will continue to be used until an alternative method of assessment can be found to serve its function. PL 94-142 has made it mandatory that an assessment which is non-discriminatory be utilized. This study will include an investigation of the use of the IQ test in conjunction with other assessment measures to properly place minority students into special education classes.

The Use of Adaptive Scales for Special Class Placement

Adaptive scales have been in evidence for the past 20 years. However, it has only been with recent legislation and Federally sanctioned programs that they have gained widespread interest. Court cases have ruled in favor of alternative methods for assessing minority children. In most cases, the adaptive scale has been suggested or implemented as a response to these legal concerns.

A need for adaptive scales. Comprehensive evaluation is a critical first step in developing appropriate individual plans for children. These evaluations have included standardized tests, developmental scales, and systematic daily observation by the teacher (Diebold, Curtis & DuBose, 1978). Using the IQ as the sole determiner for placement has resulted in too many children, who did not need special education, being mislabeled and placed into special education classes. Because of this problem, court cases have resulted.

Testimony from the Larry P. case, begun in June of 1972, stated the need for culturally specific methods to be developed to measure a child's ability regardless of race. Government legislation required the use of adaptive measures (Richardson, 1976). Oakland (1974) called for more input and involvement from parents in the assessment process. These suggestions have resulted in the idea that non-intellectual factors may be the most important part in identifying children for special education (Mercer, 1974). As a result, the use of adaptive measures became one way of assessing children from the viewpoint of the parent.

Adaptive measures incorporated views of the students in a variety of roles from the perspective of the family, including their roles in community functioning, self-help skills, consumer skills and social skills. No role was more important than another (Oakland, 1979). Adaptive

measures emphasized the importance of knowing other components within a social system such as the expectations of the family, the community and peers, as well as the academic functioning level (Mercer, 1979). Studies conducted by Diebold, Curtis and DuBose (1978) indicated that adaptive scales were good predictors of functioning levels of both exceptional and normal students. They were useful in evaluating all members of society as they tap common activities expected of all people (Oakland, 1979). Since it was important that the person answering the questions be knowledgeable about the child, limitations were only as great as the limitation of the family member answering the questions about the child (Goodman, 1979).

Today there is a renewal of efforts to develop valid assessment techniques, to terminate detrimental labeling and to ensure educational placements in the best interest of the child. In 1974 Mercer reported that 47% of the students placed in EMR classes by the public schools were above the EMR cutoff and that 62% had no physical disabilities. The majority of those labeled were school age children, while those over 21 were rarely labeled as retarded. This finding led to the concept of the 8:30 - 3:00 retarded child (Simkins, 1973). Substantial proportions of minority children were in EMR classes. Blacks were represented in the population by 9%, but were 11% of the EMR population. Chicanos comprised 9% of the total population, but 38% of the EMR classes. Whites were

present in the community at a percentage of 85%, and yet only 51% of the EMR classes were White (Mercer, 1974).

As a result of this study, Mercer (1971) conceptualized a developmental assessment process which included both an IQ score and an adaptive behavior scale. She classified children as being in one of four categories based on measured IQ and measured adaptive behaviors. The clinically retarded were those who were in the lowest 3% of the population in both IQ and adaptive behavior. The subnormal were those who were in the lowest 3% of the population in IQ, but normal in adaptive behaviors. The behaviorally maladjusted were normal in IQ, but in the lowest 3% of the population in adaptive behavior, while normal students were those who were normal in both dimensions. The use of the 3% criterion meant a person scored below 70 on a standard IQ test and also scored the lowest 3% on a measure of adaptive behavior (Mercer, 1976).

Adaptive behavior scale measurement. The concept of adaptive behavior had historical antecedents. As early as the Nineteenth Century the idea of retardation included factors of adaptive behavior (Lambert, Wilcox, & Gleason, 1974). Since the early 1800's specialists in the field of mental retardation dealt with a patient's social competency, adaptability to the environment and efficiency of self-help (Bortner, 1978).

Not until 1959 did the American Association on Mental Deficiency (AAMD) begin to reconsider adaptive

behavior. In 1959, there was no single instrument to measure the degree to which a person was able to function and maintain himself/herself independently as well as meet the requirements of personal and social responsibility (Lambert, Wilcox & Gleason, 1974). The Vineland Social Maturity Scale, Denver Developmental Screening Test, Progress Assessment Chart, The Developmental Profile and others have been developed to meet this need.

The need for an alternative means of assessing students for special classes was demonstrated by earlier studies. These studies concluded that there were a disproportionately large number of cultural minorities in classes for the retarded; minority students labeled as retarded had significantly higher IQ's and fewer physical problems than did Whites; and the public school relied almost entirely upon an IQ score rather than the socioeconomic background of the student to determine placement (Mercer, 1972b). Mercer (1974) found that 60% of the Chicano and 90% of the Black adults who scored below 70 on an IQ test were performing adequately in occupational, parental and community roles. In effect this meant that those who achieve in nonacademic roles are not comprehensively retarded.

Adaptive behavior is a broad look at a child's ability to negotiate entry into various home-related systems (Figueroa, 1979). The scores obtained from these various ratings may be used to depict a profile which

allows for comparisons of individuals with an appropriate reference group (Buros, 1978).

Adaptive scales reflect environmental demands placed upon members of society in personal and social functioning (McDevitt & Rosen, 1977). Adaptive behavior scales such as the AAMD Adaptive Behavior Scale can only be defined in terms of a particular setting, however, and, since there are a variety of settings to which a person must adapt, validity of these scales is in terms of the validity of criteria applied in a particular setting (Bortner, 1978). These scales have been useful in describing a student's performance in terms of daily living and interpersonal behavior. The AAMD Adaptive Behavior Scale was designed to provide objective descriptions and evaluations of an individual's adaptive behavior. Adaptive behavior was defined as the effectiveness of an individual in coping with natural and social demands of his/her environment (Nihira, Foster, Shellhaas & Leland, 1975). The way in which a person met the demands of his/her environment was information most critical for those in charge of training these people.

In the Spring of 1973 a group of school psychologists from the University of California, Berkeley, undertook a study to update the standardization on the AAMD Adaptive Behavior Scale. Since the AAMD test is a basis for most adaptive measures utilized by school systems, it was felt that it must be updated (Lambert,

Wilcox & Gleason, 1974). Items most directly connected with school functioning were included while retaining the basic principle that a child must be adaptively and intellectually retarded in order to be so labeled. Thus the IQ score alone will not result in a "retarded" label (Mercer, 1979).

Court cases which have documented the problems of the IQ test unfairly judging minority students have suggested that adaptive measures to determine the child's ability to function in a community, social and home situation be utilized (Mercer, 1972a). Measurement of children in a diversity of roles, and the likelihood they can perform well in some roles and badly in others was useful information when placing children in educational levels (Mercer, 1979). The use of adaptive behavior measures had been encouraged by the American Association on Mental Deficiency since their definition of mental retardation required evidence that a student was sub-normal on measures of intelligence and adaptive behavior (Oakland, 1979). Thus, the requirement of adaptive measurement has become more evident in recent years.

Summary. Requirements of PL 94-142 which mandate non-discriminatory testing have resulted in the use of adaptive measures for assessing children for special programs. A single assessment instrument is no longer acceptable, and adaptive behavior measurements which measured how well a child succeeded in a variety of

settings was one of the major assessment techniques used to meet the need for information other than intellectual functioning to describe children and adults. Adaptive behaviors have been almost exclusively measured from the perspective of the family. This perspective, however, limited the measurement of the child's total functioning abilities to the home. To evaluate the child from both the home and academic setting, Mercer developed the System of Multicultural Pluralistic Assessment (SOMPA). This study will investigate the use of the SOMPA adaptive measurement for assessing students considered for placement into special classes, in addition to his intellectual and behavioral level of functioning.

An Alternative to the Use of a Single Assessment Tool for Placement of Students into Special Education

The development of a multipluralistic system to measure a child's functioning is a relatively new concept. This system relied upon a number of assessment tools to give a more complete picture of the child's total functioning level. Aforementioned problems with a single assessment tool have been documented, and an alternative to this sole measurement will now be discussed.

The SOMPA-sanctions for a multicultural pluralistic assessment tool. In 1971 the California Legislature amended the Education Code to provide a legal framework for pluralistic assessment. The following quotation

contains some of the salient provisions of that bill:

"The legislature . . . declares . . . that pupils should not be assigned to special classes . . . for the mentally retarded if they can be served in regular classes.

"Before any minor is admitted to a special education program for mentally retarded minors . . . the minor shall be given verbal or nonverbal individual intelligence tests in the primary home language in which the minor is most fluent and has the best speaking ability and capacity to understand.

". . . No minor shall be placed in a special education class for the mentally retarded if he scores higher than two standard deviations below the norm No minor may be placed in a special education program for the mentally retarded unless a complete psychological examination by a credentialed school psychologist investigating such factors as developmental history, cultural background, and school achievement substantiates the retarded intellectual development indicated by the individual test scores. This examination shall include estimates of adaptive behavior . . . such adaptability testing shall include but is not limited to a visit with the consent of the parent or guardian, to the minor's home by the school psychologist or a person designated by the chief administrator of the district"
(California Legislature, Senate Bill No. 33, 1971).

While the Larry P. v. Wilson Riles case, previously mentioned, challenged the use of the IQ test as an assessment tool for measuring minority children, this Education Code allowed the use of the IQ test. It required, however, that the IQ test be administered in the child's native language and, in addition, required that a measurement of adaptive behavior be included which accounted for the child's cultural background. Tests

measured what a child has learned and because all learning takes place in a sociocultural setting, no test is culture-free (Thorndike, 1971; Oakland, 1973; Mercer, 1974). Thus non-discriminatory assessment tools must be utilized which most accurately measure a child's abilities in terms of his sociocultural background, his academic potential and his adaptive abilities (Mercer, 1976; Oakland, 1977; Figueroa, 1979).

Legal requirements for non-discriminatory assessment. PL 94-142 called for several innovations in the assessment and identification of exceptional children (Figueroa, 1979). Court cases, such as Hobson v. Hansen in 1967 have investigated the use of IQ tests to segregate children into special classes. Rather consistently since Hobson, courts have ruled that cultural differences mask true potential when children come from environments that are experientially, linguistically, and culturally different (Figueroa, 1979).

The unique point of PL 94-142 addressed the testing issue. Evaluation materials will be selected and administered so as not to be racially or culturally discriminatory (MacMillan & Meyers, 1977). This statement meant that a test used for culturally different children must take into account their sociocultural background as well as their intellectual and academic potential. The SOMPA claimed to do this (Mercer, 1976).

The SOMPA - advocates and proponents. The SOMPA met all the non-discriminatory testing specifications of PL 94-142 (Figueroa, 1979; Mercer, 1979; Oakland, 1979). This assessment device was an attempt to develop a comprehensive measure to assess, not only the students' current skills and behavior, but also those aspects of their sociocultural environment that influence these skills (Oakland, 1979). Aside from its compliance with PL 94-142, the SOMPA was a major contribution to non-discriminatory assessment. It was a system of tests developed to assess children from culturally different backgrounds. The SOMPA viewed American culture as dominated by Anglos. The more distinct and homogeneous the ethnic group, the greater the differences between the cultures. Thus the minority child must be seen within the context of his/her own culture (Figueroa, 1979). The authors of the SOMPA did this by assessing children with norms appropriate to the particular group from which he/she came (Laosa, 1973).

The SOMPA subtests were used to assess children using three separate models: a medical model; a socio-cultural model; and a pluralistic model. The definitions, assumptions, and characteristics of each of these models are clearly stated (Figueroa, 1979). The medical model assessed systems of disease. It was not culturally bound. What made the SOMPA unique in terms of questions asked was the fact that questions relative to the medical history of the child had been normed on normal students

(Figueroa, 1979; Mercer, 1979). The Social System model evolved from the analysis of social deviance. The primary focus was on the process by which students succeed or become deviant. This model assumed that tests which measured role performance reflected the norms of the dominant group (Gonzales & Ortiz, 1977). Two SOMPA instruments measured social system behavior: the Adaptive Behavior Inventory for Children (ABIC) and the WISC-R. In the SOMPA, the WISC-R was used as a measure of ability only when it can be assumed the student has the same advantages in learning, motivation, and test experience as the students on whom the WISC-R was normed (Mercer, 1979). Mercer (1979) felt that the WISC-R measured behavior appropriate to the school and that the ABIC was a broad topographical look at a child's ability to negotiate entry into home related situations. The ABIC gauged the quality of the child's behavior from the perspective of the home (Figueroa, 1979).

The Pluralistic model was developed to estimate learning potential by comparing students from one culture with students from that same culture. It assumed that all groups had the same potential for learning. In order to assess a person, he/she must be located in his/her particular sociocultural space. The sociocultural scales served this purpose (Mercer, 1976). Sociocultural scales determined how much a minority child's background differed from that of the White population. This scale located a

person on the basis of socioeconomic status, degree of Anglo cultural assimilation and the degree of integration into the Anglo social system. This social system model was culture bound and committed to the concept of multiple norms (Mercer, 1976). The critical step, then, was to select a variable to be used as the basis for adjusting the IQ scores. Mercer used the scores on the sociocultural scales for this purpose.

Because there were differences in acculturation within each group, development of a separate norm for each ethnic groups was not done. Instead separate regression equations were used for verbal, performance, and full-scale IQ's for each ethnic group. Therefore, a child was assessed or located on the sociocultural scales, and the average WISC-R score for each ethnic group was determined by a multiple regression of IQ scores from these various sociocultural scales. The students' relative standing in this sociocultural distribution of WISC-R scores provided the Estimated Learning Potential (ELP). Given these assumptions, WISC-R scores measured learning potential only if differences in learning opportunities were taken into account. In the SOMPA these corrected scores were the ELP; that is, the ELP took into account the child's sociocultural background with the use of the sociocultural scales, as well as his/her WISC-R score.

Questions about the basis for selection of the items for the sociocultural scales have arisen. There was no

indication as to why certain items were used. Since this information would be beneficial in showing a relationship between sociocultural scales and other instructional variables it would be important to be included (Brown, 1979). The concept of the ELP was also controversial (Brown, 1979; Figueroa, 1979; Goodman, 1979; Oakland, 1979). Much criticism centered around the concept that differential treatment be afforded to non-majority students. The concept that the English language and Anglo conformity should be perpetuated ran deeply in the educational system (Figueroa, 1979; Mercer, 1979). As a result, Mercer's concept of an ELP depended upon the notion that ethnic minorities have equal learning potentials if differences in the opportunity to learn were taken into account. This assumption was difficult to verify. Many feel that there was no evidence that the ELP's were better predictors of academic performance than the WISC-R scores (Brown, 1979; Goodman, 1979; Sandoval, 1979).

The SOMPA is a lengthy test which requires a good deal of psychometric time and skill (Brown, 1979; Oakland, 1979). It is estimated that the complete battery may take as much as five hours to administer, not including travel time, parent contact time, or write-up time (Oakland, 1979). Because of the time, cost, and other considerations, questions have arisen as to the practicality of the SOMPA in the present educational system. The norms reported by Brown (1979) appeared to be representative of

California, but the question of generalizing them to the rest of the nation has not been determined conclusively. Studies done in Texas indicated that California norms qualified more Mexican-American children for special education than did Texas norms (Oakland, 1979). ELP norms from California were reported by Reschly (1977) to be lower than the Arizona norms. Thus it would appear that local norms are critical when utilizing the SOMPA.

Using the Austin data, Oakland (1979) found that both the ELP and the IQ's correlated with reading and math test scores. The ELP scores correlated in the high 40's; however, actual IQ's which correlated in the high 70's predicted achievement better than ELP's. Thus the use of the ELP in preference to the IQ to predict school achievement was not supported (Oakland, 1979).

Mercer's assumptions that sociocultural background was more basic than developed intellectual skills is a questionable basis for making corrected IQ scores (Brown, 1979). The SOMPA manual (pp. 156-157) indicated that the sociocultural scales only accounted for 6% - 28% of the variance in WISC-R scores. The correlation, according to Brown (1979), would have a stronger foundation if the sociocultural scale accounted for a larger portion of the variance.

Summary. The SOMPA seeks to meet the mandates of PL 94-142 by providing a framework for assessing the needs of children in a racially and culturally non-discriminatory

manner. No single criterion was used. Instead, a full array of measures suggested in the Federal guidelines have been included, including a measure of motor abilities, of vision, of hearing, of stature, and a health history in the medical profile; a measure of adaptive behavior in the community and school in the social system profile; and a measure of estimated learning potential and measures of social and cultural background in the pluralistic profile. These measures were interpreted within an integrated set of cognitive models which define the purposes for which tests are used in each model and the appropriate definition of external validity and racial and cultural discrimination for each model (Mercer, 1976). While the SOMPA meets the legal requirements of PL 94-142, questions as to its reliabilities with different populations, its excessive administration time and its lack of correlation with teacher observations of actual performance in the classroom, have caused critics to question its use. This study will examine its relationship to teacher ratings.

The Role of Teacher Observation Scales in Assessment Procedures

Teachers are critical to the education process. They are the chief referral source for children considered for special education, yet they have rarely been utilized directly in the assessment of children's abilities. A closer look at their possible potential as assessors of children's potential should be reviewed.

Observational tools. The fact that observations of classroom behavior were seldom included in assessment procedures can be explained. Medley and Mitzel (1967) pointed out that observations are time consuming, cost money, and that professional skill is required of the observer. In addition, results of observational studies have been questioned because they do not contribute to the understanding of pupil behavior.

When observers knew what to look for, how to record this information, and how to score what they recorded, significant information about behavior was revealed (Medley & Mitzel, 1967). This information indicated that changes in pupils' behavior ultimately affected the amount of learning which occurred in the classroom (Berliner & Gage, 1976). When these behavior patterns affecting learning were observed, educational programs were affected.

Techniques of observations. In order for observations to be useful to the teacher, an observational scale must provide an accurate record of behaviors and be scored properly (Flanders, 1970). To do this, certain conditions must be satisfied. A representative sample of behaviors must be observed. These behaviors must be typical of the classroom. An accurate record must be kept which reflects differences in behavior (Medley & Mitzel, 1967). Criterion must be established which are meaningful to the educational setting to which the observations apply (Flanders, 1970; Turner, 1975).

The observer must witness behavior and record it properly. The process of selecting behaviors to be recorded must be limited and the behaviors recorded immediately after they occur. For these reasons, training of observers was critical to the success of classroom observations (Medley & Mitzel, 1967; Turner, 1975).

Attempts to measure classroom behavior. The earliest attempts to obtain objective measurement of student behavior were initiated by educational supervisors. A need for these measurements was felt prior to World War I when it was proposed that each time students responded, this event would be ascertained. With the measurement of student responses, a standard could be used to measure other students. This idea was expanded upon in 1928, when more traits were added to expand the behavior measured. In 1934, a more elaborate system of recording observations was developed by Wrightstone. This system involved identifying the student and categorizing his behavior (Medley & Mitzel, 1967). Wrightstone's system involved a complex scoring pattern that required numerous symbols. While this system was complete, it was difficult to score. Subsequent methods of recording behaviors were criticized for their difficulty in scoring. During the quarter century since the introduction of the first observational scale, little change in format was accomplished. Improvements centered on the method of scoring (Medley & Mitzel, 1967). A look at the

measurement of classroom behaviors in a systematic way would appear warranted.

Early attempts to measure behavior. Initial studies of behavioral measurement were primitive and lacking in method. Becker (1973) observed that knowledge of classroom behaviors was limited and little research was available to educators. Behavior observation was overwhelming to teachers as they had little systematic guidance. Measurement of behavior was lacking in identification of those behaviors which led to successful achievement by students (Berliner & Gage, 1976). These early studies, as a result, lacked data which was useful and uniform. Thus a need to identify those behaviors which designated a successful classroom performance was necessary.

Identifying classroom behaviors. Most data regarding behavior consisted of descriptive accounts. These accounts dealt with certain facts, but were usually selective and inconsistent (Medley & Mitzel, 1967; Flanders, 1970). To deal with this problem, research centered around finding a means of identifying specific behaviors. Flanders (1970) tallied patterns of interaction so that a teacher might see an overall pattern of behavior for the entire classroom. This scheme was unique in that each interaction cell represented a different form of behavior (Turner, 1975). With systematic procedures, such as Flander's scheme, the

observer was able to develop a pattern of scoring which became "natural" with continued use (Becker, 1973). This ability to feel comfortable with an instrument was influential in making teachers more responsive to pupils and their individual needs. When teachers felt comfortable with an instrument, they became more conscious of their own behaviors (Flanders, 1970). With this new awareness they became more attuned to the students' behavioral responses (Turner, 1975). To become effective as evaluators of behavior, teachers had to be aware of their role in measuring those behaviors deemed critical for school success. In many cases the teacher was called upon only when a child was referred for special education assistance (Spivack & Swift, 1972). The teacher then became a key person in the detection of public behavior (Becker, 1976). Since teachers were the chief reference source for special education, their role in the identification of students was critical (Mercer, 1979).

Teacher input. A clear understanding of the student is a prerequisite for objective testing and evaluation (Spivack & Swift, 1972). The way a child is perceived by his/her teacher will affect his/her school functioning level throughout his/her educational experience (Deutsch, 1969). In order for a teacher to accurately measure a student's functioning level, it was critical that systematic measurement of behavior occur. Since early detection of special education children has become increasingly

important, appropriate identification tools were needed to help teachers better judge their students (Keogh, 1973). Promising techniques included behavior observation and teacher rating scales. These methods focused on what a child can do and how he goes about doing it (Becker, 1973; Keogh, 1973). Studies conducted by Swift and Spivack (1969), and Keogh (1973) demonstrated the effectiveness of teacher observations in determining how children function in classroom settings. These observations were recorded on carefully devised scales that focused the teachers' attention on actual pupil behavior (Pokarno, 1977).

In order for a rating scale to be useful and valid, it must contain specific factors, establish norms, be reliable, and relate to achievement and ability (Spivack & Swift, 1972). Common factors relating to classroom performance were necessary for defining the success or failure of a student (Swift, 1977). In order to determine what these factors were, teachers were interviewed regarding those behaviors which were most influential on classroom success. The factors considered to correlate most highly with academic achievement, such as independent learning, intellectual self-sufficiency, and originality, were then incorporated into a rating instrument (Swift & Spivack, 1969). When these factors were included, rating scales served as a viable means for the detection of problem behaviors which could then be remediated (Figueroa, 1979).

Myklebust, Helmes and Boshes (1969) developed an instrument for detection of learning problems for third and fourth grade children. They reported that the teacher as an observer could detect and properly classify children with learning problems better than a psychologist. They also found that teachers had clearer expectations about the child's abilities and knew what was expected academically at the different grade levels. It appeared that individual behavior analysis done by teachers was an effective means of identifying children with exceptional needs (Novack, Bonaventura, & Merenda, 1973). The accuracy of behavioral prediction based on teacher rating scales using these common behaviors has been demonstrated to be superior to teacher ratings of academic success. This difference can be explained partially by the fact that academic expectancies required for success in school vary from year to year, while behavioral skills were stable over time (Becker, 1976). It was predicted that behavior analyses done by teachers may prove more effective than group testing (Novack, Bondventura & Merenda, 1973).

Achievement-related classroom behavior. Successful classroom behavior has been found in some studies to correlate with academic achievement (Spivack & Swift, 1969b). The relationship between classroom behavior and the achievement criteria indicated that when a child underachieved, it was evident, not only in his grades and

test scores, but also in his functioning in the classroom (Keogh, 1973). Careful articulation of behavior patterns could facilitate strategies for increasing the functioning level of the student (Bartel, 1973).

Many behavior rating scales, based on systematic behavior analysis, were published. Among those most commonly used were the SRA Rating Scale for pupil adjustment, Personality Record, New York Rating Scale for School Habits, Personal and Social Development Program and the Pupil Adjustment Record. These instruments were designed to rate pupils at various academic levels on temperamental or school adjustment dimensions said to be important. Unfortunately, these scales were not designed to validate significant dimensions of classroom problems (Spivack & Swift, 1969b). The aforementioned scales lacked validity and good scale development. According to Flanders (1970), successful behavior rating scales must reflect the requirements of the teacher for a successful classroom environment. The Hahnemann Elementary Behavior Scale (HESB) met this teacher requirement and was well normed, reliable, and related its scores to achievement and ability (Spivack & Swift, 1972). For these reasons it has been found to be a useful tool for assessing behaviors of both regular class students and special education students.

Summary. In order for a child's functioning level to be measured appropriately, teacher input was critical. It is the teacher who daily observed the student and

his/her level of performance in the classroom. The teacher is the main referral source for special education, yet teacher input in the assessment process was seldom included due to expense, time and skill required of the observer and the lack of a systematic method of behavior assessment.

When instruments became available which included significant information about behavior and were easily scored and applicable to the classroom situation, teachers became involved in their use. With the use of a behavior rating scale included in regular assessment procedures, valuable referral time for special education may be saved. This study will examine the use of teacher's ratings in assessing children for consideration for special academic assistance.

Conclusion of the chapter. This review of the literature pertaining to the SOMPA components as well as teacher observation scales, suggests that little research has been done correlating scores on the SOMPA ABIC with teacher observation scales or with SOMPA ELP data. Little evidence has been shown in terms of group differences on the various section of the SOMPA, i.e., the WISC-R verbal, performance, and full-scale scores and the ELP verbal, performance and full-scale scores with SOMPA ABIC scores and HESB scores; ABIC subtests and the SOMPA ABIC with teacher observations scales such as the HESB. The present study will attempt to clarify these relationships.

CHAPTER III

METHOD OF THE STUDY

This study investigated correlations between the abridged version of the System of Multicultural Pluralistic Assessment (SOMPA), the Wechsler Intelligence Scale for Children-Revised (WISR-R) and the Hahnemann Elementary School Behavior Scale (HESB). The purpose of the study was to determine if the abridged version of the SOMPA information was redundant of information on the HESB and the WISC-R. If so, a good deal of parent and psychologist time could be saved and minority students would still be evaluated in a non-biased manner.

The number of Blacks, Whites and Chicanos identified as special education students through the use of the SOMPA ABIC and SOMPA ABIC subtest scores, SOMPA ELP subtests, and WISC-R subtests scores was also investigated. Sacramento City Unified School District (SCUSD) criteria for placement of students in Learning Handicapped (LH) and Resource Specialist Program (RSP) was used as the determining factor for identification of the students with the use of the WISC-R and SOMPA (see Table 1 and Table 2).

Since the population was drawn from the total referrals for special education, it was impossible to know prior to assessment which students qualified for full-time

Table I

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT
ELIGIBILITY CRITERIA FOR LEARNING HANDICAPPED (LH) SPECIAL CLASS

Students shall be eligible for placement by the Educational Assessment Services (EAS) in a learning handicapped class when they meet any of the following criteria:

- A. The student is found to be at or below the third percentile, based on chronological age, in three or more of the areas listed below as determined by specified standardized testing, and supported by observational reports.

<u>AREA</u>	<u>REQUIRED</u>
1) Basic reading	Wide Range Achievement test (WRAT)
2) Reading comprehension	Peabody Individual Achievement Test (PIAT)
3) Mathematics	WRAT
4) Oral expression	As determined by the speech therapist
5) Listening comprehension	As determined by the speech therapist
6) Written expression (spelling)	WRAT

or

B. Exceptional Placement

The EAS may unanimously identify a student as eligible for placement in a learning handicapped special class when found to be at or below the third percentile in one or two of the areas and the evaluation data support exceptional placement. The EAS shall specify the reasons for such exceptional placement in writing on the placement document. The EAS shall develop a plan designed to ameliorate the learning disabilities identified and shall schedule a review of the individual's progress within three months of implementation of the plan. Upon review, the EAS shall evaluate the appropriateness of the placement and confirm or reconsider it. If the EAS unanimously determines that another placement is more appropriate, recommendations shall be made for that placement. The plan shall then be revised as needed.

or

C. Behavior Disorders

Students who have behavior disorders may be placed in learning handicapped classes if their academic performance is so adversely affected that they meet the eligibility criteria as defined above. Such placement shall occur following unsuccessful specific interventions.

Table 2

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT

ELIGIBILITY CRITERIA: RESOURCE SPECIALIST PROGRAM (RSP)

Students shall be eligible for placement by the School Appraisal Team (SAT) or the Educational Assessment Service (EAS) in the Resource Specialist Program (RSP) when they meet either of the following criteria, provided that appropriate modifications have been made to meet these needs within the regular classroom and have been found unsuccessful.

The student exhibits an achievement lag according to the following scale:

Kindergarten: Shall be considered if previously retained or moving from another special education program, and shows a significant lag using standardized developmental tests.

Grades 1 & 2: One year below grade level expected for chronological age.

Grade 3: One and one-half years below grade level expected for chronological age.

Grades 4-6: Two or more years below grade level expected for chronological age.

A. The above achievement lag must be demonstrated in two of the following learning needs, one of which must be academic, and must be associated with a learning handicap.

1. Reading: Accuracy
2. Reading: Comprehension
3. Mathematics: Reasoning/Calculation
4. Written Expression (spelling)
5. Oral Language Comprehension (listening)
6. Oral Expression
7. School Behavior, including only: self concept/social skills, attention/distractability, motivation/task completion, organization/study skills

B. The achievement is to be measured by standardized tests administered by specialists trained in test administration and interpretation.

C. The student has been previously identified as having exceptional needs and/or has been previously enrolled in a special class. The student can function in a regular program for the majority of the school day and requires the assistance of the resource specialist.

special programs (LH) or remedial part-time assistance (RSP). Since, by definition, the students qualified for LH placement had more severe learning problems, their scores would necessarily be lower than the students qualified for RSP. Only LH and RSP students were included in the study. (See Table 3). Criteria for placement of special education children utilizing the abridged version of the SOMPA was determined using Mercer's theory that a child must be low-functioning both in intellectual ability and adaptive behavior.

This study was done in two phases. Phase one was a correlational study conducted utilizing the HESB and SOMPA ABIC. These tests both dealt with behaviors of the student as measured by his/her teacher on the HESB and by the parent on the SOMPA ABIC. Included in the first phase was a study of correlations between the SOMPA ABIC and the HESB with the ELP verbal, performance and full-scale scores. Also included was a correlational analysis and between the HESB, SOMPA ABIC, and the WISC-R verbal, performance and full-scale scores.

The second phase of this project consisted of a validation study utilizing a two-way Analysis of Variance to determine if there was a difference in means among the Blacks, Whites or Chicanos on the SOMPA ABIC and the SOMPA ABIC subtest scores, SOMPA ELP subtests and WISC-R subtests as well as the HESB. A Tukey HSD analysis was done if ANOVA results were significant. Because of the unequal number of cells in the RSP/LH classification

Table 3

SAMPLE POPULATION

School	Number of Males	Number of Females	Black	Chicano	White	
A		1	1			
B		1	1			
C	3			3		
D	8		5	3		
E	5	1	3	1*	2	
F	2	1		3		
G	2	1			3	
H	1		1			
I	1	2		2	1	
J	7		5	1*	1	
K	18 (3)		5	3* (3)	10	
L	11 (8)	2 (2)	3 (3)	5 (5)	5 (2)	
M	11 (9)	4 (3)	6 (4)	6 (6)	3 (2)	
N	6	2 (1)	1	3 (1)	5	
TOTAL			Sample Total			
14	75 (20)	15 (6)	90	30 (7)	30 (15)	30 (4)

Total LH: 64

Total RSP: 26

*Denoted SOMPA interviews conducted in Spanish
 () RSP students

A t-test was done on this classification variable. As a part of phase two, a Chi Square Goodness of Fit Test was run to determine if the numbers of Blacks, Whites or Chicanos would differ if placed using the SOMPA ABIC, SOMPA ELP or WISC-R.

Population and Sample

Population. The parent population was low functioning fourth grade students. The target population for this research project was drawn from low-functioning male and female elementary school students referred for the Learning Handicapped (LH) or Resource Specialist Program (RSP) of the SCUSD. These students were present in 54 elementary schools which contained a total of 93 LH and RSP classes.

The subjects for this project included both the male and female fourth grade students who were referred for placement in the LH or RSP classes during the 1978-1979 school year. Only children referred for LH or RSP assistance under the Comprehensive Plan for Special Education (CPSE) were included. Their birthdays occurred between 12/3/68 and 12/2/69. Each student was assessed with the WISC-R during the 1978-1979 school year.

Sample. The potential universe from which the sample was drawn consisted of the 250 fourth grade students referred for LH or RSP special education assistance during the 1978-1979 school year. These students met the requirements for placement.

Because minority students were not equally distributed in all schools, the schools that were selected had to meet the following preset criteria: a) the schools had heavy concentrations of minority students; and b) the principals agreed to cooperate fully with the research project. Applying these criteria, 14 schools in the district were selected.

Once the schools were selected, all students who were referred were included in the sample until the preset numbers of the sample size were obtained. A total of 90 Black, White and Chicano students were selected to participate in this study. Each group consisted of 25 males, 5 females. LH/RSP membership was unequal for the groups. For the Black group there were 23 LH and 7 RSP students; for Whites, there were 26 LH and 4 RSP; and the Chicanos were equally divided with 15 students in LH and 15 in RSP. In numerous studies (Mercer, 1976; Richardson, 1976; Oakland, 1979) it has been shown that boys were referred for special education assistance in greater numbers than girls. Myklebust, Helmes & Boshes (1969) reported that learning disabilities appeared in boys four times more often than in girls. Thirty students were established as the minimum number needed in each group to adequately test the hypotheses generated in the study.

Discussion of potential bias. Since all subjects up to a preset number were included in the sample, the time of referral might potentially bias the sample. Since

referrals occur continuously throughout the year, and since each referral must meet a referral criteria, this temporal factor in the selection process should not bias the sample in any systematic way. Therefore the sample is assumed to be representative of LH and RSP fourth grade students referred for special education in SCUSD. Specific numbers, ethnic breakdown and sex of the participants in this study are presented in Table 3.

SOMPA interviewers. Interviewers for this research project consisted of a) full-time paid staff of the Psychological and Social Work Services of the SCUSD and b) paid Spanish-speaking Community Aides. A total of eight Psychologists, two Social Workers and two Spanish speaking Aides participated in the present study. Eight were female and four were male. All Psychologists and Social Workers held a minimum degree of a Masters in the areas of Psychology, Counseling or Social Work with one Psychologist holding a Ph.D. in Counseling Psychology. Spanish-speaking Community Workers had two years of college. All interviewers had been trained in the SOMPA administration and had an inter-rater reliability coefficient of .95. Level of work experience varied from three years to over 20. Demographic data describing the Psychologists, Social Workers, and Community Aides who participated in student evaluation procedures is presented in Table 4.

Table 4

Enumeration and Description of Interviewers*

Psychologist/Social Worker Community Aide	Years Experience	Highest Degree Obtained	Institution
1	22	M.S.	CSUS
2	15	M.S.	CSUS
3	5	M.S.	CSUS
4	21	M.S.	CSUS
5	15	M.S.	CSUS
6	10	M.S.	CSUS
7	3	Ed. Sp.	UOP
8	3	Ph.D.	Univ. Okla.
9	22	M.S.W.	Adelphi
10	3	M.S.W.	CSUS
11	5	A.A.	Sac. City College
12	5	A.A.	Sac. City College

*Inter-rater reliability $R=.95$

Instrumentation

System of Multicultural Pluralistic Assessment

(SOMPA). The SOMPA is based on three models: The Medical Model, the Social Model, and the Pluralistic Model. For the purposes of this study, an abridged version of the SOMPA which included the Social (the Adaptive Behavior Inventory for Children - ABIC) and Pluralistic (Estimated Learning Potential - ELP) models were utilized. Each model is based on different assumptions. Mercer (1976) did not seek to develop a culture-free or culture-fair test. She did seek to interpret the performance of the child from different cultural backgrounds so that the child was compared with others of the same background.

She accepted the Cleary definition (Mercer, 1975, p. 25) of validity: "A test is considered fair for a particular use if the inference drawn from the test score is made with the smallest feasible random error, if there is no constant error in the inference as a function of a membership in a particular group." While Mercer accepted this definition, she anticipated that new definitions of validity would have to be developed in systems representing multicultural settings. While the Cleary definition was considered appropriate for the social system model, it was not considered appropriate for the pluralistic model (Mercer, 1976). Further information on the pluralistic model and its validity will follow the discussion of the social model tests.

The Social Model Tests: Adaptive Behavior Inventory for Children (ABIC) and Wechsler Intelligence Scale for Children-Revised (WISC-R) Instrumentation. The ABIC is an attempt to operationalize the concept of adaptive behavior. It is designed to provide information regarding the child's development and performance in social roles other than at school. Those roles named on the ABIC are: Family, Community, Peer Relationships, Nonacademic School, Earner/Consumer, and Self Maintenance. There is also a total score. Data are obtained from an extensive parent interview.

Validity of the SOMPA ABIC. The validity of the ABIC is judged by its ability to reflect accurately the extent to which the child is meeting expectations of the family members, not by its correlations with teacher judgment, school performance, or academic achievement (Mercer, 1976). The validity of the ABIC is specific to the social system of the child's family and neighborhood. It reflects the manner in which the child's performance is evaluated by the parent (Mercer, 1976). The ABIC does not provide a way to acquire information on the expectations of each social system. As a result, it is not possible to evaluate the child's adaptive behavior against the expectations of each ethnic group's social system (Brown, 1979). Mercer (1979) responded to Brown by stating that the child is evaluated by what he actually does and how

the behavior is viewed by significant others in the same social setting.

Reliability of the ABIC. Split-half reliability coefficients for each level are .80 or higher with the average correlation .85. Standard error of measurement averaged five to six scale score points. Intercorrelations between ABIC scores are generally .65 or higher. Ethnic group membership accounts for less than 5% of the variance (Brown, 1979).

WISC-R. The WISC-R was selected for use in the SOMPA because it is individually administered, a process which avoided problems with misunderstanding written directions, and an inability to read questions. It can be given to young children. One purpose of the SOMPA is to identify students early in their school careers so that a pattern of failure is not established. The norms for the WISC-R are recent and the use of the WISC-R by school psychologists is widespread. Mercer (1976) assumed that the WISC-R is a good predictor of a child's performance in the role of students as judged by teachers.

The WISC-R consist of twelve subtests, six in the verbal area and six in the performance area. The six verbal scales include: information, vocabulary, arithmetic, comprehension, similarities and mazes. The performance subtests include: picture completion, picture arrangement, coding, object assembly, block design and

digit span. Two subtest IQ scores, a verbal and a performance, plus a full-scale IQ score can be obtained.

Validity of the WISC-R, Tittle (1975) in her review of the WISC-R stated that the discussion of validity is a major weakness. No factor analysis is presented and Tittle concluded that patterns of the test have not been associated with diagnostic categories. The WISC-R manual contains no discussion of validity and many (Mercer, 1975; Petrosko, 1975) feel that this is a major flaw. Petrosko (1975) presumes that intelligence may be so global that it cannot be captured and compared with paper and pencil tests. Vance, Gaynor and Coleman (1976) reported that the increased length of the WISC-R over the old WISC increased the internal validity. Congruent validity comparisons between the WISC-R full-scale and WIPPSI full-scale is .82. The same is true between the two verbal and two performance IQ's. The correlation between the WISC-R full-scale and WAIS full-scale is .95. The correlation between the verbal IQ's is .96 and between the performance IQ's is .82. The average coefficient correlations of the WISC-R verbal, performance and full-scale IQ with the Stanford-Binet are .71, .60, and .73 respectively (Wechsler, 1974b).

Reschly's (1977) factor-analytic study supported the construct validity for Blacks and Chicanos. Exploration into the differential validity of the WISC-R for various

ethnic groups has generally shown no bias against minorities. Research on construct validity suggested that the WISC-R measured the same basic abilities for minority groups as for Whites and the predictive validity data indicated that the IQ's are equally effective for Blacks and Whites in performing the practical function of predicting school success (Kaufman, 1979).

Reliability of the WISC-R. Split-half coefficients were used for internal consistency on all subtests except coding and digit span. For these tests, test-retest stability coefficients were done. Reliability coefficients for the verbal, performance, and full-scale IQ's were obtained from a formula which gives reliability of a composite group. Verbal and performance IQ's were based on a composite of five tests and full-scale IQ's were based on ten tests (Wechsler, 1974b). Verbal, performance, and full-scale IQ's have reliabilities of .94, .90 and .96 respectively. Individual tests have reliability coefficients from .77 to .86 for verbal tests and from .70 to .85 for performance tests. Tittle (1975) reported that the median coefficient across all ages and subtests is .77. The test has been used extensively in educational research and meets the standards for validity and reliability required in this study.

The Pluralistic Model: The Estimated Learning Potential (ELP). The Pluralistic Model has one objective in mind, namely to estimate learning potential by comparing individuals only against individuals from similar sociocultural environments. In order to make these comparisons, a person must be located in his/her sociocultural space. The sociocultural scales are used for this purpose.

This model assumed that multiple norms for socioculturally different groups in American society are necessary. It assumed that equitable and valid estimates of a person's learning potential will be obtained only when the learning, motivation, and test taking is the same for all (Mercer, 1976; Figueroa, 1979). The average WISC-R score for the person's sociocultural group, as determined by a multiple regression equation for the individual's ethnic group was used as a constant in computing his ELP score. The individual's relative standing in this predicted sociocultural distribution of the WISC-R scores provides an index of the ELP (Figueroa, 1979).

Validity of the ELP. The validity of the score for the ELP will be determined by the extent to which the ELP proves to be a more adequate predictor of the future performance in the student role than those assessment instruments now being used (Mercer, 1976). The appropriate test of the validity of the ELP is the amount of variance in

the WISC-R scores not accounted for by the sociocultural variables in the regression equation. The more the sociocultural component is controlled, the more valid the inferences (Mercer, 1979). The face validity according to Mercer was encouraging. Figueroa (1979) felt the best method for validating the ELP would be using experimental learning situations. These situations, set up based on predetermined criteria with hypotheses offered on the outcome, might diminish the skepticism about the use of the multiple regression procedures, if the validity in these situations were obtained. Brown (1979) reported there is currently no evidence that the ELP's are better predictors of academic performance than WISC-R scores. Thus, the validity of the ELP scores has not been clearly established.

Reliability of the ELP. The reliability of the ELP is not discussed in the SOMPA manual by Mercer. Other critics of the test are equally silent about the reliability coefficients (Figueroa, 1979; Goodman, 1979; Oakland, 1979). However, since it is composed of the WISC-R and the sociocultural scale, both of which have good reliability as cited previously, it can be assumed that the reliability of the ELP is adequate.

Hahnemann Elementary Behavior Scale (HESB). The HESB consists of 60 items dealing with observable behaviors in the classroom as rated by the classroom

teacher. It was designed for use by elementary teachers to describe the behavior problems of children in their classrooms and to outline those overt behaviors which interfere with successful classroom performance.

Behaviors focused upon are those which interfere with, facilitate, or reflect the student's level of ability to cope with academic expectations. Fourteen behaviors are measured: originality, independent learning, involvement, production with peers, intellectual dependency with peers, failure anxiety, unreflectiveness, irrelevant talk, disruptive social involvement, negative feelings, withdrawal, critical-competitiveness, blaming, and approach to teacher.

Validity of the HESB. Spivack and Swift (1969a) studied those student behaviors which related to academic success. The validity of these behaviors rated by the teacher is done by syndrome analysis. The syndrome analysis was used to define pattern "types" by considering the total individual profiles. For this profile to be determined, the computer program was designed to develop a representative pattern from each child's profile as defined by the eleven factors within each grade. Each profile was converted into standard scores around its own mean. The computer program then represented each child's standard score profile by a point within a hypothetical eleven-dimensional factor space, using the eleven

standardized factor scores as computer phenomena and basing the analysis of distances between children in this space. The distance between all pairs of points were computed and arranged in a matrix. The children found closer than this distance threshold became a cluster. The clusters in the listed test description were all found to be significant ($p < .05$).

Spivack and Swift (1969a) reported that boys obtained higher scores on behavior difficulties than did girls. Academic classroom achievement correlated most highly with independent learning, .54 to .65 with reading and .52 to .66 with arithmetic. All ethnic groups were included in these studies to insure widespread validity (Spivack & Swift, 1969a).

Reliability. The normative HESB data was obtained from 13 elementary schools in a consolidated public school system. Thirty-two kindergarten through sixth grade teachers made behavior ratings on 809 children. Before assessment, the investigators met with the teachers in a group to discuss the scales, to answer any questions regarding items, and to provide uniformity of approach. The children were rated twice, one week apart.

The data suggested a tendency for scores to decrease from the initial rating to the retest. Although statistically significant, the changes in the scores were quite small in absolute terms. The test-retest correlations of

the factors had a median coefficient of .87 (Tittle, 1975). As a further refinement, the test-retest correlation for each item in the HESB was determined. The median correlation was .76 with an inter-quartile range of .72 to .82.

Method. In the Fall of 1978, the proposal for this study was presented to the administration of SCUSD. The supervisor of the SCUSD Psychological and Social Work Services reviewed the proposed outline of the study and approved its implementation. It was agreed at a meeting held in November, 1978 that selection of the school sites to be utilized was dependent upon the predominance of ethnic students at the school, principal cooperation and the number of referrals made for Special Education services at the fourth grade level.

Fourteen schools were chosen. Each principal was contacted personally by the author to discuss the study. Requests were made regarding the use of the school site for parent interviews. Parent permission was discussed (Appendix A). In January, 1979, the classroom teacher at each school was requested by the site psychologist to complete the HESB (Appendix B) for each student involved in the study. A brief explanation of the study and its purpose was given to each teacher at the time the HESB was completed. Following the completion of the HESB, the Psychologist, Social Worker, or Community Aide at each school site contacted the parents of the referred student by phone.

After contact was made with the parent, an interview was scheduled either at the school site, in the parent's home, or at the place of employment. Each appointment time and place of the interview was determined by the parent. Before each interview, the parent was told the purpose of the study. The SOMPA (Appendix C) assessment instrument, and the reason for using an abridged form of the test was explained. Each section of the SOMPA and the purpose was discussed. Questions were answered as they arose and permission forms were obtained from each parent. Follow-up procedures for reporting the results of the study were discussed. Sixty-eight interviews were conducted at the school site; 18 in the home; and 4 at the parent's place of employment. All five Spanish interviews took place in the parent's home by request of the parents.

Following the parent interview, a WISC-R was administered by the School Psychologist to each student involved in the study. This testing was done only if the LH or RSP child involved in the study had not been assessed on this instrument during the 1978-1979 school year. At the completion of the entire study, each parent and teacher involved in the study received the results of the testing for their particular child or student in writing (Appendix D). Follow-up conferences were made at the request of the parent or teacher if further information was desired.

Hypotheses

The .05 level of significance will be accepted as minimum evidence of effect throughout all analyses. The specific null hypotheses tested by the present study were:

H₁. There will be no correlation between the teacher scored HESB and the SOMPA ABIC.

H₂. There will be no correlation between the ELP verbal, performance and full-scale scores and a) the HESB; b) the SOMPA ABIC.

H₃. There will be no correlation between the WISC-R verbal, performance and full-scale and a) the HESB; b) the SOMPA ABIC.

H₄. There will be no difference among the means of the three ethnic groups on the a) the SOMPA ABIC b) the ABIC subscores; c) the SOMPA ELP; d) the HESB results.

H₅. There will be no differences among the number of Blacks, Whites and Chicanos predicted for special education by the SOMPA ABIC, SOMPA ELP or WISC-R.

Statistical analysis. Hypotheses 1, 2 and 3 were tested using a Pearson product-moment coefficient of correlation.

Hypothesis 4 was tested using a two-way Analysis of Variance (ANOVA) because of the unequal number of LH/RSP students. If significance was found by the ANOVA, a Tukey HSD was computed. The independent variables were group membership, (Black, White and Chicano) and sex. LH/RSP

class membership was analyzed using a t-test. The dependent variables were: a) student scores in the HESB; b) the subtest scores on the SOMPA ABIC; c) the SOMPA ABIC d) SOMPA ELP verbal; e) SOMPA ELP performance; f) SOMPA ELP full-scale scores; g) the WISC-R verbal; h) WISC-R performance; and i) WISC-R full-scale scores.

Hypothesis 5 was done with the use of a Chi Square Goodness of Fit Test. Mercer's third percentile criteria was employed to determine eligibility. Observed frequencies of subtests identified by the three tests were compared to expected frequencies for the Blacks, Whites and Chicanos.

Summary. Methods and procedures used in conducting this study were presented in this chapter. A description of the student population samples and the validity and reliability of the SOMPA ABIC, SOMPA ELP, WISC-R and HESB were included. In addition, five hypotheses were stated and the statistics employed to analyze each described. Results of the study are presented in Chapter IV.

CHAPTER IV

FINDINGS OF THE STUDY

The problem investigated in this study was the determination of the relationship between the abridged version of the System of Multicultural Pluralistic Assessment (SOMPA) which included the administration of the Adaptive Behavior Inventory for Children (ABIC), the Estimated Learning Potential (ELP) and the Hahnemann Elementary Behavior Scale (HESB). This relationship, if found, could result in an economical method of assessing minority students within the guidelines of current law.

This study was conducted in two phases. The first phase involved correlating the behaviors measured by the SOMPA ABIC and those behaviors measured by the HESB. The first phase also correlated the intelligence measurements obtained from behavior measurements obtained from the SOMPA ELP subtests and the WISC-R subtests with the SOMPA ABIC and the HESB.

Phase two investigated the differences between the means of Black, White, and Chicano students on the a) SOMPA ABIC; b) the SOMPA ABIC subtests; c) the SOMPA ELP verbal, performance, and full-scale scores; and d) the HESB results. The difference among the number of Blacks, Whites and Chicanos identified for special education by the SOMPA ABIC, SOMPA ELP, and the WISC-R were also analyzed.

The statistical analyses reported in this chapter were computed with the Statistical Package for the Social Sciences (SPSS) routines at the University of California, Davis on the Burroughs B6700 computer. Significance was determined at the .05 level, since this was a preliminary study and type I error was considered less important particularly with the relatively small sample involved.

Null-Hypothesis 1

There will be no correlation between the teacher scored HESB and the SOMPA ABIC.

Null-hypothesis 1 was tested using a Pearson product-moment coefficient of correlation (see Table 5), which showed a significant negative correlation for the Whites ($r = -.51$) and Chicanos ($r = -.41$) on the HESB and SOMPA ABIC. There was no significant correlation between the scores on these two variables for the Blacks ($r = -.08$). Due to the significant negative correlation between the two measures for the Whites and Chicanos, the null hypothesis was rejected. There is a significant relationship between the HESB and SOMPA ABIC for White and Chicano students.

Null-Hypothesis 2

There will be no correlation between the SOMPA ELP verbal, performance and full-scale scores and a) HESB b) the SOMPA ABIC for any of the three ethnic groups. Hypothesis 2 (a) and 2 (b) were tested using a Pearson product-moment coefficient of correlation.

Table 5
Correlation Coefficients of Three Ethnic Groups
Between the HESB and the SOMPA ABIC

Major Analysis of H ₁				
<u>Ethnic</u>	<u>N</u>	<u>Tests</u>	<u>Pearson-r</u>	<u>Significance Level</u>
Black	30	Total HESB with SOMPA ABIC	-.08	N.S
White	30		-.51	p. < .002
Chicano	30		-.41	p. < .012

The results of these analyses of data testing H_2 (a) are presented in Table 6. The correlation coefficients indicated no significant relationships between the SOMPA ELP verbal, performance and full-scale scores with the HESB for any of the ethnic groups. These results indicated that the SOMPA ELP measures and the HESB measures tapped different dimensions. Therefore, the null-hypothesis for H_2 (a) was not rejected.

For the correlation between the SOMPA ELP verbal scores and the SOMPA ABIC, only the Black group showed a significant relationship with an $r = .51$ ($p < .002$). Among the correlations between the SOMPA ELP performance and SOMPA ABIC for the three ethnic groups, only the Black correlation was significant with an $r = .45$ (see Table 7). For the SOMPA ELP full-scale and SOMPA ABIC, the Black coefficient was again statistically significant. The correlation for the Black group was $r = .51$ ($p < .002$). The results of all these analyses are consistent. None of the correlations of these tests with Whites or Chicanos was significant, while all correlation coefficients with the Black students were highly significant.

The null-hypothesis for H_2 (b) was accepted for the Whites and Chicanos. However, the null-hypothesis was rejected for the Blacks because of the consistently high

Table 6
Correlation Coefficients of Three Ethnic Groups
Between the ELP Verbal, Performance and
Full-Scale Scores with the HESB

Major Analysis of H ₂ (a)				
<u>Ethnic</u>	<u>N</u>	<u>Tests</u>	<u>Pearson-r</u>	<u>Significance Level</u>
Black	30	ELP verbal with HESB	-.10	N.S.
White	30		.26	N.S.
Chicano	30		.17	N.S.
Black	30	ELP performance with HESB	-.30	N.S.
White	30		.06	N.S.
Chicano	30		-.10	N.S.
Black	30	ELP Full-Scale with HESB	-.24	N.S.
White	30		.14	N.S.
Chicano	30		-.02	N.S.

Table 7

Correlation Coefficients of Three Ethnic Groups
Between the SOMPA ELP Verbal, Performance and
Full-Scale Scores and the SOMPA ABIC

Major Analysis of H ₂ (b)				
<u>Ethnic</u>	<u>N</u>	<u>Tests</u>	<u>Pearson-r</u>	<u>Significance Level</u>
Black	30	ELP verbal with SOMPA ABIC	.51	p. < .002
White	30		-.10	N.S.
Chicano	30		.11	N.S.
Black	30	ELP performance with SOMPA ABIC	.45	p. < .006
White	30		.24	N.S.
Chicano	30		.26	N.S.
Black	30	ELP Full-Scale with SOMPA ABIC	.51	p. < .002
White	30		.05	N.S.
Chicano	30		.27	N.S.

correlations for this group. There is a significant relationship for the Blacks on the SOMPA ELP verbal, performance and full-scale measures with the SOMPA ABIC.

Null-Hypothesis 3

There will be no correlation between the WISC-R verbal, performance and full-scale scores and a) the HESB; b) the SOMPA ABIC. Hypothesis 3 (a) and (b) were tested using the Pearson product-moment coefficient of correlation.

Hypothesis 3 (a) The results of the analyses are presented in Table 8 for the three ethnic groups. The correlation coefficients indicated there were no significant relationships between the ELP verbal, performance and full-scale scores with the HESB for any of the ethnic groups. These results indicated that the WISC-R subtests and the HESB measure unrelated dimensions. Therefore, the H_3 (a) null hypothesis was accepted.

The second part of this hypothesis concerned the correlation between the WISC-R verbal, performance and full-scale scores and the SOMPA ABIC for the three ethnic groups (see Table 9). A positive relationship was found between these test scores for Blacks and Chicanos, but not for Whites. The correlation between the WISC-R verbal, performance and full-scale was consistently highest for

Table 8
Correlation Coefficients of Three Ethnic Groups
Between the WISC-R Verbal, Performance and
Full-Scale Scores with the HESB

Major Analysis of H ₃ (a)				
<u>Ethnic</u>	<u>N</u>	<u>Tests</u>	<u>Pearson-r</u>	<u>Significance Level</u>
Black	30	WISC-R verbal with HESB	-.14	N.S.
White	30		.15	N.S.
Chicano	30		.17	N.S.
Black	30	WISC-R Perfor- mance with HESB	-.29	N.S.
White	30		.06	N.S.
Chicano	30		-.11	N.S.
Black	30	WISC-R Full- Scale with HESB	-.25	N.S.
White	30		.13	N.S.
Chicano	30		.01	N.S.

Table 9

Correlation Coefficients of Three Ethnic Groups
Between the WISC-R Verbal, Performance and Full-
Scale Scores with the SOMPA ABIC

Major Analysis of H ₃ (b)				
<u>Ethnic</u>	<u>N</u>	<u>Tests</u>	<u>Pearson-r</u>	<u>Significance Level</u>
Black	30	WISC-R verbal with SOMPA ABIC	.62	p. < .001
White	30		.02	N.S.
Chicano	30		.16	N.S.
Black	30	WISC-R Perfor- mance with SOMPA ABIC	.50	p. < .003
White	30		.22	N.S.
Chicano	30		.34	p. < .004
Black	30	WISC-R Full- Scale with SOMPA ABIC	.63	p. < .001
White	30		.13	N.S.
Chicano	30		.30	p. < .050

the Blacks, $r = .62$ for WISC-R verbal, $r = .50$ for WISC-R performance and $r = .63$ for WISC-R full-scale. The Chicanos showed significant correlations on the WISC-R performance ($p < .004$) and full-scale ($p < .05$) scores. The null-hypothesis for H_3 (a) was accepted for the Whites, but was rejected for the Blacks in all three conditions and Chicanos for performance and full-scale.

Null-Hypothesis 4

There will be no differences between the means of the three ethnic groups on the a) SOMPA ABIC; b) SOMPA ABIC subtests; c) SOMPA ELP verbal, performance and full-scale scores; and d) the HESB.

Hypothesis 4 (a) concerned the SOMPA ABIC. To test this aspect of the hypothesis, a two-way ANOVA was utilized. The major independent variable studied was ethnicity, the variable of principal concern. The secondary variables of sex and classification were also examined. The sex variable was analyzed with a two-way ANOVA while the t-test was used on the classification variable due to the unequal number of Learning Handicapped (LH) and Resource Specialist Program (RSP) students used in the study. Classification indicated the educational placement of the subjects with LH designating those students who showed more critical academic needs and RSP students designating those whose test results indicated the need for remediation of minor academic problems. The

results of this analysis are presented in Table 10. Results indicated that the variance attributable to ethnicity was not significant in the main effect or in the first order interactions. Therefore, the null-hypothesis for H_4 (a) was accepted.

The only differences that were significant were attributed to the classification variable, with a t of 2.46 ($p = .02$). The means presented in Table 17 for the LH (324.50) and the RSP (349.62) groups differed significantly with the RSP means being higher for this group. These data indicated that the SCUSD selection criteria for RSP students had properly identified these students as RSP students, that is, as having fewer academic needs.

H_4 (b) concerned the six SOMPA ABIC subtests. A two-way ANOVA was performed for each of the subtests as well as a t -test for the LH/RSP classification variable. The analyses paralleled that of the SOMPA ABIC for sub-tests 2-5 and showed that only the classification variable indicated any differences among these variables. The results of all analyses are shown in Tables 11-17.

In all six subtest analyses ethnicity had no significant effect in terms of either main effects or interactions. These results were consistent with the

Table 10

Analysis of Variance Summary Table and Means:
SOMPA ABIC by Ethnicity and Sex

Major Analysis: Test of H_4 (a)

<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	4174.42	2	2087.21	1.03	N.S.
Sex	56.89	1	56.89	.03	N.S.
Ethnic x Sex	6400.11	2	3200.06	1.57	N.S.
Residual	171117.20	84	2037.11		
Total	181748.62	89	2042.12		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	325.40 (25)	330.20 (25)	338.60 (25)	
Female	306.00 (5)	363.60 (5)	331.00 (5)	
Total	322.10 (30)	335.77 (30)	337.33 (30)	331.76 (90)

Table 11

Analysis of Variance Summary Table and Means:
SOMPA ABIC Subtest #1 (Family) by Ethnicity and Sex

Major Analysis: Test of H_4 (b)					
<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	401.27	2	200.63	1.37	N.S.
Sex	.32	1	.32	.00	N.S.
Ethnic x Sex	602.49	2	301.25	2.06	N.S.
Residual	11181.52	84	146.21		
Total	13285.60	89	149.28		

MEANS				
	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	74.88 (25)	77.12 (25)	76.72 (25)	
Female	66.20 (5)	85.40 (5)	77.60 (5)	
Total	73.43 (30)	78.50 (30)	76.87 (30)	76.27 (90)

Table 12

Analysis of Variance Summary Table and Means:
SOMPA ABIC Subtest #2 (Community) by Ethnicity and Sex

Major Analysis: Test of H_4 (b)

<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	262.02	2	131.01	1.85	N.S.
Sex	29.90	1	39.90	.57	N.S.
Ethnic x Sex	377.92	2	188.96	2.68	N.S.
Residual	5933.44	84	70.64		
Total	6613.29	89	74.31		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	44.28 (25)	45.84 (25)	47.92 (25)	
Female	42.00 (5)	55.40 (5)	46.00 (5)	
Total	43.90 (30)	47.43 (30)	47.60 (30)	46.31 (90)

Table 13

Analysis of Variance Summary Table and Means:
SOMPA ABIC Subtest #3 (Peer Relations) by Ethnicity and Sex

Major Analysis: Test of H_4 (b)

<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	53.96	2	26.98	.44	N.S.
Sex	12.20	1	11.20	.18	N.S.
Ethnic x Sex	118.10	2	59.05	.97	N.S.
Residual	5146.40	84	61.27		
Total	5329.66	89	59.88		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	54.60 (25)	53.72 (25)	55.24 (25)	
Female	51.20 (5)	56.80 (5)	58.40 (5)	
Total	54.03 (30)	54.23 (30)	55.77 (30)	54.68 (90)

Table 14

Analysis of Variance Summary Table and Means:
SOMPA ABIC Subtest #4 (Non-Academic Roles) by Ethnicity and Sex

Major Analysis: Test of H_4 (b)

<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	186.87	2	93.43	1.52	N.S.
Sex	3.92	1	3.92	.06	N.S.
Ethnic x Sex	125.85	2	62.93	1.03	N.S.
Residual	5196.96	84	61.39		
Total	5473.60	89	61.50		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	44.08 (25)	46.24 (25)	47.76 (25)	
Female	43.00 (5)	49.80 (5)	43.60 (5)	
Total	43.90 (30)	46.83 (30)	47.07 (30)	45.93 (90)

Table 15

Analysis of Variance Summary Table and Means:
SOMPA ABIC Subtest #5 (Earner/Consumer) by Ethnicity and Sex

Major Analysis: Test of H_4 (b)

<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	53.89	2	26.94	.54	N.S.
Sex	4.70	1	4.70	.09	N.S.
Ethnic x Sex	75.79	2	37.90	.76	N.S.
Residual	4212.24	84	50.15		
Total	4346.62	89	48.84		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	32.68 (25)	32.52 (25)	34.84 (25)	
Female	31.40 (5)	35.20 (5)	31.60 (5)	
Total	32.47 (30)	32.97 (30)	34.30 (30)	33.24 (90)

Table 16

Analysis of Variance Summary Table and Means:
SOMPA ABIC Subtest #6 (Self-Maintenance) by Ethnicity and Sex

Major Analysis: Test of H_0 (b)

<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	28.07	2	14.03	.19	N.S.
Sex	5.12	1	5.12	.07	N.S.
Ethnic x Sex	198.25	2	99.13	1.31	N.S.
Residual	6350.96	84	75.61		
Total	6582.40	89	73.96		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	74.88 (25)	74.76 (25)	75.44 (25)	
Female	72.20 (5)	81.00 (5)	73.80 (5)	
Total	74.43 (30)	75.80 (30)	75.17 (30)	75.13 (90)

Table 17

t-test Summary Table for the Independent Variable of
Classification (LH & RSP) for the SOMPA ABIC
Total Scores and Six Subtest Scores

<u>Variable</u>	<u>Classification</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>t</u>	<u>df</u>	<u>Significance</u>
Total ABIC	LH	64	324.50	49.22	2.46	88	p. < .02
	RSP	26	349.62	26.45			
ABIC #1 Family	LH	64	75.19	13.66	1.32	88	N.S.
	RSP	26	78.92	7.16			
ABIC #2 Community	LH	64	45.13	9.34	2.09	88	p. < .04
	RSP	26	49.23	5.66			
ABIC #3 Peer Relations	LH	64	53.53	7.98	2.26	88	p. < .03
	RSP	26	57.50	6.42			
ABIC #4 Non-Academic Roles	LH	64	44.63	7.68	2.56	88	p. < .01
	RSP	26	49.15	7.42			
ABIC #5 Earner/Consumer	LH	64	31.81	5.67	3.20	88	p. < .02
	RSP	26	36.77	8.64			
ABIC #6 Self- Maintenance	LH	64	74.22	9.52	1.60	88	N.S.
	RSP	26	77.38	5.25			

SOMPA ABIC total score results and supported the null-hypothesis that there were no significant differences attributable to ethnicity.

Parallel to the SOMPA ABIC analysis, the classification variable was statistically significant for four of the six subtests. These four included the following subtests: #2 Community, #3 Peer-Relations, #4 Non-Academic Roles, and #5 Earner/Consumer. In all of the analyses the means for the RSP groups were significantly higher than for the LH students. Only two of the analyses showed no significant effect attributable to the classification variable. These analyses included #1 Family and #6 Self-Maintenance subtests.

The sex variable again had no apparent effect in either main effects or interactions. Thus it was not significant.

H₄ (c) concerned the SOMPA ELP verbal, performance and full-scale scores. A two-way ANOVA was performed to determine if there were any differences among the means of the three ethnic groups on the SOMPA ELP subtest scores. The results of these analyses are presented on Tables 18-20. A t-test was run on the classification variable (LH/RSP). See Table 21.

In all analyses, the variance attributable to ethnicity was not significant. These findings support the null-hypothesis that there were no differences among the

Table 18

Analysis of Variance Summary Table and Means:
SOMPA ELP Verbal Scores by Ethnicity and Sex

Major Analysis: Test of H_4 (c)

<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	517.69	2	258.84	1.61	N.S.
Sex	113.50	1	113.50	.71	N.S.
Ethnic x Sex	701.08	2	350.54	2.18	N.S.
Residual	13487.68	84	160.57		
Total	14819.96	89	166.52		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	89.32 (25)	86.20 (25)	91.72 (25)	
Female	96.60 (5)	80.20 (5)	81.40 (5)	
Total	90.53 (30)	85.20 (30)	90.00 (30)	88.58 (90)

Table 19

Analysis of Variance Summary Table and Means:
SOMPA ELP Performance Scores by Ethnicity and Sex

Major Analysis: Test of H_4 (c)

<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	687.09	2	343.54	1.45	N.S.
Sex	65.74	1	65.74	.27	N.S.
Ethnic x Sex	102.19	2	51.10	.22	N.S.
Residual	19964.80	84	237.68		
Total	20819.82	89	233.93		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	93.72 (25)	91.56 (25)	98.00 (25)	
Female	87.40 (5)	91.60 (5)	97.40 (5)	
Total	92.67 (30)	91.57 (30)	97.90 (30)	94.04 (90)

Table 20

Analysis of Variance Summary Table and Means:
SOMPA ELP Full-Scale Scores by Ethnicity and Sex

Major Analysis: Test of H_0 (c)					
<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	298.87	2	149.43	.80	N.S.
Sex	128.00	1	128.00	.68	N.S.
Ethnic x Sex	162.41	2	81.21	.43	N.S.
Residual	15774.32	84	187.79		
Total	16363.60	89	183.86		

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	90.40 (25)	88.84 (25)	93.56 (25)	
Female	92.20 (5)	84.00 (5)	87.00 (5)	
Total	90.70 (30)	88.03 (30)	92.47 (30)	90.40 (90)

Table 21

t-Test Summary Table for the Independent Variable of
 Classification (LH & RSP) for the SOMPA ELP
 Verbal, Performance and Full-Scale Scores

<u>Variable</u>	<u>Classification</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>t</u>	<u>df</u>	<u>Significance</u>
ELP Verbal	LH	64	87.92	12.10	.75	88	N.S.
	RSP	26	90.19	14.83			
ELP Performance	LH	64	90.78	13.03	3.35	88	p. < .01
	RSP	26	102.08	17.63			
ELP Full-Scale	LH	64	88.58	12.16	2.03	88	p. < .05
	RSP	26	94.88	15.89			

means of the three ethnic groups on the SOMPA ELP verbal, performance and full-scale scores.

The variance attributed to the classification variable was significant for only the SOMPA ELP performance score and full scale scores. The mean score for the RSP students on the ELP performance was 102.08, which was significantly higher than the SOMPA ELP performance score for the LH group (90.78). This indicated that RSP students were stronger in the performance subtest of the SOMPA ELP and scored higher. The results for the full-scale scores were also significant. (See Table 21).

The effects attributable to sex were not significant in any of the analyses.

H₄ (d) concerned the differences among the means of the three ethnic groups on the HESB. A two-way ANOVA was also performed to test this hypothesis (see Table 22). If the 2-way analysis showed a significance, a Tukey HSD analysis was performed. Results indicated that ethnicity had a significant effect. These results did not support the null-hypothesis. There are differences in the means among the three ethnic groups on the HESB.

Differences between the RSP and LH students on HESB ratings were found using the t -test ($p < .03$). (Table 23). The mean for the RSP group was 176.62 and the mean for the LH group 195.56. A higher score reflected poorer adaptation. Consistent with the above findings, the variance attributable to the sex variable was not significant.

Table 22

Analysis of Variance Summary Table and Means:
Total HESB by Ethnicity and Sex

Major Analysis: Test of H_4 (d)					
<u>Source Explained</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>Significance</u>
Ethnic	5128.02	2	2564.01	3.47	p. < 0.4.*
Sex	94.30	1	94.30	.13	N.S.
Ethnic x Sex	141.20	2	70.60	.10	N.S.
Residual	62127.76	84	739.62		
Total	67491.29	89	758.33		

*Tukey HSD = 9.97 (C.R. = 3.36) p. < .01

MEANS

	<u>Black (N)</u>	<u>White (N)</u>	<u>Chicano (N)</u>	<u>Total (N)</u>
Male	193.96 (25)	198.32 (25)	179.36 (25)	
Female	190.00 (5)	192.20 (5)	181.20 (5)	
Total	193.30 (30)	197.30 (30)	179.67 (30)	190.09 (90)

Table 23

t-Test Summary Table for the Independent Variable of
Classification (LH & RSP) for the HESB

<u>Variable</u>	<u>Classification</u>	<u>N</u>	<u>Mean</u>	<u>S.D.</u>	<u>t</u>	<u>df</u>	<u>Significance</u>
HESB	LH	64	195.56	26.94	-3.10	88	p. < .03
	RSP	26	176.62	24.60			

Null-Hypothesis 5

There will be no significant differences among the number of Blacks, Whites and Chicanos predicted for special education by the SOMPA ABIC, SOMPA ELP, and WISC-R. Hypothesis 5 was tested with the Chi Square Goodness of Fit test. The null-hypothesis was accepted. There were statistically no differences in the numbers selected for LH and RSP by the SOMPA ABIC, SOMPA ELP and WISC-R (Table 24).

Summary

Five major null hypotheses were tested. A summary table (25) has been included to illustrate the major findings.

TABLE 24

Number of Black, White and Chicano
Students Predicted for Special Education
using the SOMPA ABIC, SOMPA ELP and WISC-R
with Mercer's 3rd Percentile Criteria**

	Black	White	Chicano	Total
SOMPA ABIC	27 27.33	26 27.33	29 27.33	82*

$$\chi^2 = .16, df = 2, N.S.$$

* Number of students now in special education not selected
using the SOMPA ABIC = 8.

	Black	White	Chicano	Total
SOMPA ELP	29 28	26 28	29 28	84*

$$\chi^2 = .22, df = 2, N.S.$$

*Number of students now in special education not selected
using the SOMPA ELP = 6.

	Black	White	Chicano	Total
WISC-R	22 24	23 24	27 24	72*

$$\chi^2 = .59, df = 2, N.S.$$

*Number of students now in special education not selected
using the WISC-R = 18.

**Third percentile on an IQ test score (70) used to identify for Special
Education; 21 or less scored on the SOMPA ABIC subtests.

Table 25

Summary Table: Hypotheses One-Five

	<u>Black</u>		<u>White</u>	<u>Chicano</u>
H ₁ SOMPA ABIC/HESB	N.S.		p. < .002	p. < .012
H ₂ (a) SOMPA ELP/HESB	V.	N.S.	N.S.	N.S.
	P.	N.S.	N.S.	N.S.
	F.S.	N.S.	N.S.	N.S.
H ₂ (b) SOMPA ABIC/ SOMPA ELP	V.	p. < .002	N.S.	N.S.
	P.	p. < .006	N.S.	N.S.
	F.S.	p. < .002	N.S.	N.S.
H ₃ (a) WISC-R/HESB	V.	N.S.	N.S.	N.S.
	P.	N.S.	N.S.	N.S.
	F.S.	N.S.	N.S.	N.S.
H ₃ (b) WISC-R/SOMPA ABIC	V.	p. < .001	N.S.	N.S.
	P.	p. < .003	N.S.	p. < .004
	F.S.	p. < .001	N.S.	p. < .050
H ₄ (a) SOMPA ABIC	N.S.		N.S.	N.S.
H ₄ (b) SOMPA ABIC #1	N.S.		N.S.	N.S.
#2	N.S.		N.S.	N.S.
#3	N.S.		N.S.	N.S.
#4	N.S.		N.S.	N.S.
#5	N.S.		N.S.	N.S.
#6	N.S.		N.S.	N.S.

LH/RSP

H₄ (a)
ABIC

p. < .02

H₄ (b)

SOMPA ABIC #1

N.S.

#2

p. < .04

#3

p. < .03

#4

p. < .01

#5

p. < .02

#6

N.S.

H₄ (c)

SOMPA ELP

Black

V. N.S.

P. N.S.

F.S. N.S.

White

N.S.

N.S.

N.S.

Chicano

N.S.

N.S.

N.S.

LH/RSP

H₄ (c)

SOMPA ELP

V.

N.S.

P.

p. < .01

F.S.

p. < .05

Black

White

Chicano/
Black-White

H₄ (d)

HESB

N.S.

N.S.

p. < .04

LH/RSP

H₄ (d)

HESB

p. < .03

H₅

WISC-R/SOMPA

ABIC/SOMPA ELP

Black

N.S.

White

N.S.

Chicano

N.S.

CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Summary

This study began with a discussion of the need for non-discriminatory testing instruments and procedures in assessing minority children for special education programs and services. The importance of improved educational testing practices was reviewed:

1. Statistics document the highly disproportionate number of Black, Chicano, and other minorities in special education classes.
2. Parents questioned the amount of time spent on assessment procedures which frequently resulted in the educational misplacement of their children.
3. Professionals expressed concern that traditional testing instruments misrepresented the abilities of minority children.
4. Most significant and relevant to this study, current Federal legislation (PL 94-142) included a non-discriminatory testing section mandating that no single instrument procedure be used in assessing and placing handicapped children and that all assessment instruments and procedures be selected and administered so as not to be racially or culturally discriminatory. A review of the research on testing minority children added credence to the concerns of parents and professionals; provided additional justification for

the inclusion of a non-discriminatory section in PL 94-142; and emphasized the need for this investigation.

The primary purpose of this study, broadly defined, was to determine how those entrusted with assessment of minority children might best address the concerns of parents and professionals and meet the requirements of the PL 94-142 non-discriminatory testing section. The investigation first clarified Federal and State guidelines, legal procedures and practical considerations:

1. No single IQ instrument could be used.
2. Assessment must be economical in terms of time and utilization of personnel.
3. Assessment should include consideration of a child's socioeconomic background and adaptive behavior as perceived by the parent; local education agencies must select appropriate assessment instruments consistent with the considerations outlined in 1, 2, and 3 above in the absence of specifically mandated State or Federal assessment instruments.

A secondary, but equally significant purpose evolved as the primary purpose of the study was more carefully delineated. This secondary purpose focused on the correlation between race/ethnicity and scores on the various instruments field-tested in the course of the investigation.

The design of the study involved a comparison of the assessment instrument which the California State Department of

Education has designated as non-discriminatory with other less time-consuming and less costly assessment approaches. Objectives of this research design included:

1. Determining the effectiveness of the abridged form of the State-approved test.
2. Evaluating the comparable effectiveness of a more widely used, time-conserving IQ test.
3. Ascertaining the relative effectiveness of utilizing a teacher-scored behavioral observation scale for assessment purposes.

The format of the study was a field testing approach requiring:

1. The administration of the abridged version of the State approved test, including the IQ test and parent interview components.
2. The administration of only the IQ test.
3. The utilization of the teacher-scored behavioral observation scale.

These above instruments were field-tested with ninety fourth grade-age children in the Sacramento City Unified School District (SCUSD). The student sample was composed of 30 Black, 30 White and 30 Chicano children. Each ethnic group consisted of 25 males and 5 females. All children tested had been referred for special education assessment during the 1978-79 school year.

Following assessment, the students were found eligible for either the Resource Specialist Program (RSP) or, in cases

of greater educational handicap, for the Learning Handicapped (LH) Program. Twenty-three Black, 26 White, and 15 Chicano children qualified for the LH Program. Seven Black, 4 White, and 15 Chicano children qualified for RSP.)

The data collected were analyzed statistically through the use of the computer program, Statistical Package for the Social Sciences. Results suggested that:

1. The State-approved test and the more familiar IQ assessment were equally non-discriminatory and, conversely, equally discriminatory. The teacher-scored instrument was found to discriminate racially and to separate the groups into the classification LH/RSP.
2. Parents, teachers, and psychologists who served as respondents or testers in the study were inconsistent in their assessments of the students.
3. Children who were found eligible for the RSP or the LH Program were perceived by parents, teachers, and psychologists alike as in need of the program, RSP or LH, in which they were subsequently placed as the result of a more comprehensive assessment procedure. This finding was fortuitous, not having been hypothesized as part of the study.
4. No differences between males and females were found.

Discussion

The results of this study were outlined above into four

major findings. The first of these findings suggested that the State-approved test and the more familiar IQ assessment instrument were equally non-discriminatory and, conversely, equally discriminatory. If neither of the instruments discriminate on the basis of race, which these results suggest, then this finding makes untenable the notion that the widely used and more economical psychologist-administered test, Wechsler Intelligence Scale for Children - Revised (WISC-R), is a discriminatory test (Williams, 1975; Mercer, 1976; Oakland, 1977; Figueroa, 1979). In terms of individual students, there would have been fewer Blacks, Whites, and Chicanos in LH classes and fewer Blacks and Whites in RSP classes had the WISC-R been used alone. In this study, the comparable section of the State-approved test, the System of Multicultural Pluralistic Assessment Estimated Learning Potential (SOMPA ELP), underlabeled in terms of those students referred to Special Education in SCUSD. However, the WISC-R was more conservative in this respect than either section of the abridged form of the State approved test, the SOMPA Adaptive Behavior Inventory for Children (ABIC) or SOMPA ELP. Ironically, the State approved test was developed by Mercer (1976) specifically to be conservative in the labeling process.

If, on the other hand, all instruments were equally discriminatory, the WISC-R still appeared to label fewer children as in need of the LH Program or the RSP than did the other instruments. As can be seen on Table 26 (Appendix E), the WISC-R can be seen to have selected fewer Black, White, and

Chicano LH students than either the SOMPA ELP or SOMPA ABIC.

If one accepts Mercer's (1976) contention that it is better not to label a student as learning handicapped, even in cases where this label may be appropriate, then the WISC-R appeared to be a better instrument for underlabeling students than Mercer's own test. As shown on Table 26, the number of students not identified were most evident in the LH classification. Both the abridged version of the State approved test and the WISC-R appeared to underlabel this group which had been identified by the school district as having more academic needs.

It might be suggested from these results that the school district was guilty of labeling students who were not, in fact, in need of special education. It appears that some of these students may have been placed by "staff judgment" criteria which do not select solely on the basis of academic need. This placement by "staff judgment" appeared to have classified more Blacks, Whites and Chicanos as LH than would have been the case had any one of the three tests been used alone. This placement of students by staff was probably based on subjective criteria which were not related to actual academic needs. Some of the possible reasons for this type of placement were due to behavioral baseline data presented by the psychologist or teacher coupled with emotional problems resulting in the student functioning far below his/her academic potential. Another factor for placement by staff involved parent pressure which was supported by teacher or support staff observations. It should be noted that in some

instances parents have demanded LH placement for their children over the objections of the school staff. These observations by teachers and parents were interpreted to mean that the student under consideration would benefit from academic instruction in a small group setting. Thus the subjective staff judgment was based upon factors other than those which would follow exactly the guidelines outlined in Table 1 and Table 2. One problem with these criteria is that they allow greater flexibility for placement than do the SOMPA or WISC-R. Regardless of the reason, it appeared that some of the LH students, and especially Black LH students, were improperly assigned to the LH classification, thus suggesting support for Jones (1972), Williams (1974), Mercer (1976) and Oakland (1979), who contended that minority groups such as Blacks are over-represented in special education classes.

There were no statistically significant differences in the number of students identified for special education by the SOMPA ABIC, SOMPA ELP and the WISC-R. This finding would suggest that the abridged version of the SOMPA was no more successful than the WISC-R in identifying students in a non-discriminatory way.

Since the WISC-R is already used by most school districts, it appears that by using the SOMPA ELP, which incorporates the WISC-R, non-discriminatory testing may be conducted with a minimum expenditure of additional time by school staff. Thus, school districts would have an economical instrument for evaluating students by using a familiar assessment tool and a

relatively brief parent interview. These results appeared to indicate that Mercer has eliminated bias by ethnic group in her test development of the State approved test (Mercer, 1976; Figueroa, 1979; Oakland, 1979).

Teacher-scored instrument classifies Chicanos. The teacher-scored behaviorial observation scale, the Hahnemann Elementary Behavior Scale (HESB), was not compared with the abridged version of the SOMPA or the WSC-R since there were no established criteria for this scale in determining special education eligibility. It was used in analyzing the differences in the mean of the Blacks, Whites and Chicanos, however.

When the means of the three ethnic groups were analyzed, there were significant differences found between the means of the Blacks, Whites, and Chicanos on the HESB. The Chicano students, who were equally divided between LH and RSP members, were scored by their teachers as having behaviors identified by Spivack and Swift (1969a; 1969b) as relating to academic achievement. The Black and White students were seen differently by their teachers. On the basis of these results, it appears that the HESB discriminates on the basis of race. In this study, the Chicano group was equally divided between the higher achieving RSP group and the more academically needy LH. It would seem that the Chicano group, because of the equal distribution of the program classification which resulted in assessment, should have done better on the scale than the unequally distributed Black and White groups. In fact, teachers did see the Chicano students as having behaviors

associated with academic achievement. This finding suggests that the teachers judged the Chicano group more accurately than they did the Blacks and Whites, which validates to some extent the assignment of students to LH/RSP classification as only 7 Blacks and 4 Whites were RSP.

Inconsistent Ratings by Parents, Teachers and Psychologists

The second major finding suggested that parents, teachers, and psychologists who served as respondents or testers in the study seldom agreed in their assessments of the students. When comparing the teacher-scored instrument (HESB) with instruments measuring academic potential as scored by psychologists (SOMPA ELP and WISC-R) and home success as seen by the parent (SOMPA ABIC), it appeared that the teachers' ratings were not in agreement with either the parents' or psychologists' view.

In the case of the teachers' ratings and parents' ratings, results seemed to indicate that if a White or Chicano subject did well on one scale, he or she would probably not do well on the other. There are at least two possible explanations for this finding. One deals with the reliability of those assessing and the other with the validity of the assessment instruments. It may be that the teachers who filled out the HESB were unreliable in their ratings of the students. The teachers who filled out the HESB may not have been skilled in rating these students with the HESB and this lack of familiarity with the test instrument may have influenced the results. However, it should be noted that the teachers

involved in this project who filled out the HESB are continuing to use it as a part of their assessment procedures. They found that in completing the HESB for each student they gained new insights as to the way children's behavior can be described and understood.

On the other hand, the parents of the White and Chicano students may also be unreliable in their response to SOMPA ABIC test questions. It has been said that minority parents compensate for their children's school problems by seeing them positively in other than school activities (Goodman, 1979). The parents interviewed, including the White parents, may have been perceiving their children as strong family members able to care for themselves. Because their children were said to be problems at school, these parents may have been countering with positive qualities they saw in their children.

School related and home related measures differ. Since Mercer (1976) developed the SOMPA ABIC to measure non-school behaviors, and the HESB was developed to measure positive school behaviors, another possible explanation for these findings may be that the SOMPA ABIC and HESB measured behaviors that were considered appropriate in one setting and inappropriate in another. Mercer's (1976) original premise in developing the parent inventory was partially substantiated; in general, children were seen at home as functioning differently than at school. Spivack and Swift's (1969a; 1969b) original basis for the development of the HESB was also supported. These students were seen as lower functioning in an academic setting.

While the HESB/SOMPA ABIC correlations were significant for the Whites and Chicanos, teacher and psychologist measures were not shown to have any relationship for any of the three ethnic groups. The HESB, SOMPA ELP and WISC-R results may be explained by the restricted range of scores which frequently reduces correlations (Cleary, Humphreys, Kendrick & Wesman, 1975). This restriction in range is a result of choosing the sample from only low-functioning students. This selection process automatically eliminated most students in the public schools. According to the criteria described in Chapter III, those tested in the lower 3% of the population could qualify for the LH program, and only those students functioning at least 50% below grade level could qualify for the RSP. Neither the teacher-scored scale nor the psychologist-scored assessment instruments were developed with a special education population. As a consequence they do not account for a limited population sample such as this. It appears that other studies using these instruments with a larger special education population should be conducted before the relationship between the instruments and this population can be determined.

When psychologist-scored instruments (SOMPA ELP and WISC-R) and parent responses (SOMPA ABIC) were compared it was shown that correlations for the Black students were positive and significant, while results for the Whites were non-significant. The correlations for the Chicanos on the WISC-R performance subtest were weak but positive.

Explanations for these results. These correlations show that the White and Chicano parents of this study who provided the estimate of their children's actual potential on the SOMPA ABIC did not perceive their children in the same way that the school psychologist perceived them on the SOMPA ELP and WISC-R. This difference may be a result of White and Chicano parents unreliably rating their children so that they appear more capable, or it may be a function of the perceptions of the school psychologist who unreliably scored the students.

Another explanation could be a confirmation of Mercer's hypothesis that ABIC scores are unrelated to WISC-R scores. The SOMPA ABIC, SOMPA ELP and WISC-R measure social system behaviors. Mercer (1979) felt that the WISC-R measured behavior appropriate to the school, and that the SOMPA ABIC was a topographical look at the child's ability to negotiate entry into home-related situations. She further hypothesized that these adaptive measures were not related to school behaviors (Mercer, 1976; Figueroa, 1979; Oakland, 1979).

Cleary (1966) had observed that IQ measures correlated positively with socially relevant criteria for minority students. These results apparently substantiated Cleary in the case of the Black students, but not with the Chicanos and Whites. Because this selected sample was drawn from a lower-functioning level of the school population, the low correlations might be a result of the restriction in range. If this is true, the findings of this study differ from those of Diebold, Curtis and DuBose (1978) who suggested that adaptive measures were good predictors of

functioning levels of both exceptional and normal students. When only low-functioning children were part of the population, however, the correlation that they reported seemed to disappear. Whatever the explanation, White and Chicano parents rate their children's adaptive ability differently than psychologists score the children's academic potential.

The correlation for the Black special education students between the SOMPA ELP and WISC-R subtests and SOMPA ABIC, on the other hand, suggests that the Black parents' perceptions of their child's abilities at home were better predictors of their child's academic ability than the perceptions of White or Chicano parents. The response of Black parents seemed to be able to better estimate, within a restricted range of abilities, their own child's relative ability. This ability to predict might be attributable to (a) some Black children who function well outside school were not given the opportunity to demonstrate their capabilities in school, thus suggesting improper placement of some Black students in special education; or (b) Black parents may have learned to discriminate small differences in their children's abilities because their children have often been seen as having less academic abilities than White or Chicano students (Jones, 1972; Oakland, 1979).

The correlation between Black parents' ABIC perceptions and their children's ELP and WISC-R verbal and performance scores were moderately strong. This finding might suggest that Mercer's original Black population was most similar to this Black sample and that Mercer's White and Chicano populations

were somewhat different from these White and Chicano students (Oakland, 1979). This Black sample had the greatest number of LH students, who were, by definition, low functioning. However, as can be seen in Table 27 (Appendix F), Mercer's Black population is much lower-functioning than either her White or Chicano groups. Although her Blacks represented the total population of the districts she used in her sample, it can be seen that their mean scores do not differ greatly from those of this study which was restricted to only low-functioning children. Due to the differences between the Mercer/Yaryan means for the White and Chicano population, a need for establishing local norms appeared to be supported (Oakland, 1979). A renorming process would be expensive and time consuming. Local districts rarely have money or personnel for such a requirement and thus the establishment of local norms becomes a prohibitive requirement.

The Chicanos in the Mercer study and this one are very much alike in their abilities as measured by the WISC-R, a result which may be attributable to the fact that this study's sample was equally distributed between LH and RSP students for the Chicanos but was unequally distributed for the Blacks and Whites. To a lesser extent, the performance subtest appeared related to responses on the parent questionnaire for the Chicanos.

It was found that when comparing the testing responses of parents, teachers and psychologists the relative position of the ethnic groups remained the same. With the SOMPA ABIC/HESB

there was a moderate negative relationship for the Whites and Chicanos, while the Blacks showed no relationship on these measures. However, with the SOMPA ABIC/SOMPA ELP and the WISC-R, the Black group moved up the continuum to a positive relationship which was significant. The White and Chicano groups also moved up to a positive non-significant relationship. Thus the groups moved in the same relationship to each other from a relatively negative to a positive correlation (Figure 1). In one instance, negative correlations were found for the Whites and Chicanos on the HESB, and in another, a positive correlation was found on the SOMPA ELP and WISC-R. The WISC-R and SOMPA ELP appear to measure more academically successful behaviors than does the HESB. These results suggest that teachers need to be fully trained in observing student behavior. Some teachers responding in this study indicated following completion of the HESB that the results were beneficial for behavior modification planning. Others showed surprise and indicated some doubt that the students' profiles were reflective of their students' behavior. Following discussion, these teachers became more observant and careful when describing their students' behavior. Thus it may be said that for some teachers the HESB results became a training session in observing. In any case, careful observation techniques are necessary.

LH/RSP Classification Results

The third major finding of this study was unanticipated and fortuitous. There was agreement among the parents, teachers, and psychologists as to placement of children into LH/RSP. In

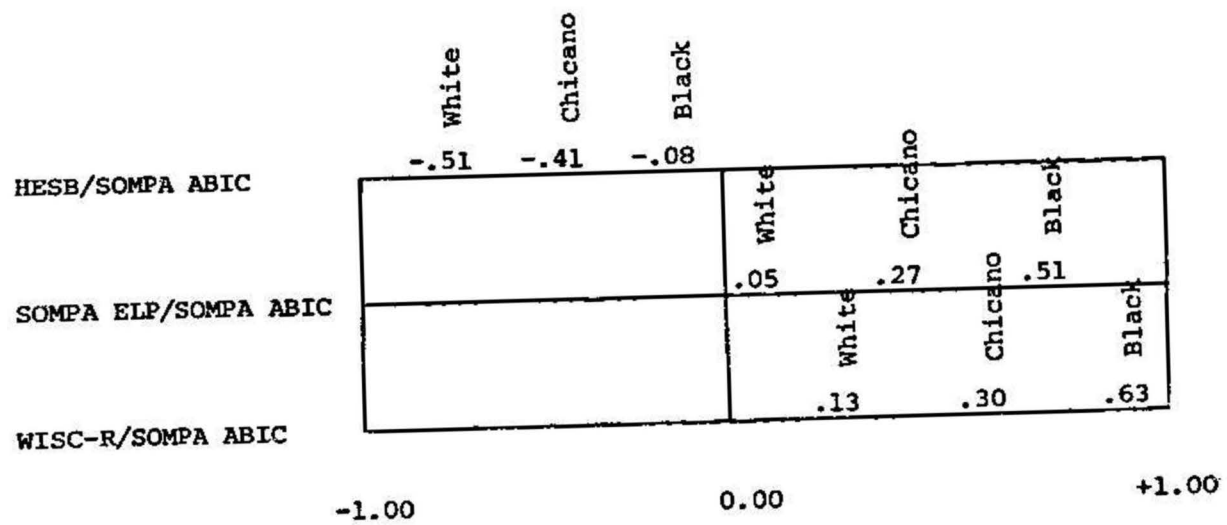


Figure 1

Correlation Comparisons Between the
SOMPA ABIC and the HESB; SOMPA ELP; and WISC-R

this study, there was apparent consistency found in the responses/scoring by parents, teachers and psychologists to classification, i.e., whether the students should be in LH or RSP classes.

When comparing the number of LH/RSP students placed by the SOMPA ABIC, SOMPA ELP, and the WISC-R (Table 26) and the breakdown of the sample population by sex (Table 3), it can be seen that while the majority of the females were ultimately placed into the RSP, indicating they had fewer academic needs, there were no statistically significant differences found between the sexes. Thus, when the three instruments were compared, it appeared that the criteria utilized by SCUSD in "staff judgment" decisions resulted in more students, mostly male, being placed into the more academically needy LH program. These results give further credence to the fact that the subjective judgment utilized by SCUSD staff, which was not based upon the academic criteria established for special class placement, resulted in more students, especially Blacks, being classified as LH. The fact that the LH placement was an indication of greater academic need makes these assignments particularly questionable. It is reasonable to assume that the students who were "missed" by the three tests should have been labeled RSP since the academic criteria for their placement was marginal. It would appear, therefore, that subjective criteria used by SCUSD should be re-examined to ensure better placement for minority students.

Parent and Teacher Responses Sensitive to LH/RSP Classification

Parents' responses on the SOMPA ABIC were sensitive to the subsequent LH/RSP classification differences of their children, suggesting that, with the aid of this instrument, parents were able to discriminate among classifications. It was shown that the LH/RSP classification variable was significant in four of the six subtests of the SOMPA ABIC. The subtests of #2 (Community), #3 (Peer Relations), #4 (Non-Academic Roles), and #5 (Earner/Consumer) showed a higher mean for the RSP students than for the LH. On subtests #1 (Family) and #6 (Self-Maintenance), the means were not significantly different among the groups.

These results suggest that special education parents saw their children functioning differently. Parents of LH children saw their children not functioning as well as did parents of RSP children. In addition, higher functioning RSP children were seen as having stronger abilities to relate to peers, survive in the community and to earn money, a finding which adds validity to the ABIC.

While there were no significant differences among the means of the three ethnic groups, the LH/RSP classification mean scores on the ELP performance section administered by psychologists were significantly different. This finding indicates that the psychologist-administered SOMPA ELP was sensitive to differences in this population on the basis of their classification when evaluating students on a non-verbal scale, again providing some predictive validity to the ELP.

The teacher-rated HESB was not used originally by Spivack and Swift (1969a; 1969b) on a special education population. It was only used in a regular classroom program to determine those behaviors which were correlated with classroom achievement. However, on the basis of the utilization of the HESB with the special education children included in this study, it appears that this teacher rating instrument could be used to discriminate between RSP and LH groups. Thus, the HESB may be a useful tool for the classroom teacher when evaluating children for special education.

The last major finding of this study concerned the sex variable. It was found that this variable was not significant. It should be noted that while the ratio of males to females was small, Myklebust, Helmes and Boshes (1969) have reported that boys are referred more often than girls for special education. This was the case for this study as well. Of the fifteen girls used in this study, the majority were subsequently placed into the RSP program.

Implications and Conclusions

1. The use of a single IQ score does not meet the requirements of a non-biased assessment in PL 94-142. Thus, since the WISC-R is a major portion of the SOMPA ELP, and the SOMPA ELP has been suggested by the State of California to meet the requirements of non-discriminatory assessment, the ELP may be the most economical and academically meaningful instrument for selecting minority special education children.

2. While this study did not seek to find assessment

instruments which distinguished LH/RSP students, it was shown that the teacher-scored HESB, not originally used with special education students, did in fact make this distinction. In addition, the SOMPA ABIC and ABIC subtests, to which parents responded, which were also not developed with a special education population, also made the LH/RSP distinction. The SOMPA ELP performance subtest did likewise. This ability of a test to distinguish special education students has implications for school districts interested in determining those students in need of additional school services.

3. This study's findings suggest that teachers need to be well trained in observing student behavior. Without training and experience, test reliability and validity is questionable. The same appeared true for parent observations and possibility for psychologists or community workers interviewing parents. Unless these people are sensitive to the measurement of a child's ability, he/she may be unreliable in rating it.

4. The HESB, while discriminating among the ethnic groups and between the LH/RSP students, did not gather information which was duplicated by the SOMPA ABIC, ELP or WISC-R. Thus it cannot be recommended in place of the other instruments.

5. Study results indicate that each school district needs to establish local norms for the SOMPA. Each district's particular population composition can affect test results. A renorming process would be an expensive and time-consuming process which may be a prohibitive requirement.

6. The HESB is a useful tool for teachers to use to help them better understand their students' behavior. This better understanding is particularly helpful in their discussions of particular student behavior with psychologists about classroom management.

Four Suggestions for Further Study

1. It is recommended that additional studies, which include students from all grades and ability levels, be undertaken in order to compare results between these groups on the SOMPA ABIC, SOMPA ELP and the HESB. The results of such a study would further expand the knowledge obtained from this research to include a more "normal" population. In this way the possible effects of a restricted range of scores could be determined and the results would have a more universal application.

2. It is recommended that psychologists who wish to conserve time and still make assessments in a legally non-discriminatory manner use the SOMPA ELP.

3. It is recommended that the HESB be utilized in a study in which both regular and special education students are included to determine which areas of that test are most useful in describing special education students and which areas are most descriptive of regular class students. With this information, a special education assessment team could utilize the HESB to pinpoint areas of behavioral remediation.

4. It is further suggested that teachers be well trained and thoroughly familiar with observational tools used in further study. Community aides, used for parent interviews, should also be well versed in the assessment tools used.

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APPENDIX A

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT
Special Programs and Services Office
Pupil Services Department
Psychological and School Social Work Services

PARENT NOTIFICATION AND AUTHORIZATION FOR RESEARCH PROJECT

Name of Pupil: _____

Birthdate: _____

School: _____

I understand that this project may include the administration of an individual intelligence test, a parent interview, and a behavioral scale given by fully qualified personnel.

The results of this project will be of use as part of a doctoral program and to the school district in the education of children. While results will be shared, personal information and identification will be confidential.

(Signature of Parent or
Legal Guardian)

(Date)

Hahnemann Elementary School Behavior Rating Scale (HESB)*

George Spivack, Ph.D. and Marshall Swift, Ph.D.

Hahnemann Community Mental Health/Mental Retardation Center
Department of Mental Health Sciences
Hahnemann Medical College and Hospital, Philadelphia, Pa.

STUDENT	Date of Rating _____
Name _____	Teacher _____
Sex _____ Age _____	School _____
Grade _____	Subject _____

HOW TO MAKE RATINGS

1. Your own experiences with the child should be the only guide in rating. Ignore the opinions or comments of others.
2. Consider only the behavior of the child over the past month.
3. The child should be compared with the average youngster in a classroom setting. For all items on a page use the rating scale provided. Record your rating in the box to the left of each item.
4. Do not try to interpret the student's hidden motives, feelings or thoughts. Deal with your observations of the child's actual behavior.
5. Answer each question separately. Do not attempt to give answers which appear to go together.
6. Rate items quickly. If undecided, continue to the next item and go back to it when you are done.
7. Do not hesitate to give high or low ratings. Avoid minimizing impressions by giving medium ratings. Extreme rating points are meant to be used whenever appropriate.
8. Rate all items. If it is impossible for you to answer an item due to lack of opportunity to observe, circle that item number.

* © George Spivack & Marshall Swift, 1975

Companion to the Hahnemann High School Behavior Rating Scale (HHSB)

Hahnemann Elementary School Behavior Rating Scale (HESB)*

George Spivack, Ph.D., and Marshall Swift, Ph.D.
Hahnemann Community Mental Health/Mental Retardation Center
Department of Mental Health Sciences
Hahnemann Medical College & Hospital, Philadelphia, Pa.

HESB STUDENT PROFILE

Name: _____ Grade: _____ Date of Rating: _____ Teacher: _____

Regular & Open Classes

1. Originality	uses	3	thoughts	18
	develops	9	explores	27
2. Independent Learning	comp.	25	aware	53
	applies	49	persists	57
	organiz.	51		
3. Involvement	brings	1	show	22
	imagin.	6	recept.	41
	exper.	13		
4. Productive with peers	shifts	47	variety	58
	responds	54		
5. Intellectual dependency	follows	19	awayed	48
	looks	29	choices	56
6. Failure anxiety	rgt. ans.	7	tests	37
	selfderog.	15	oversens.	45
	expect	23		
7. Unreflec-tiveness	claims	17	rushes	55
	conclud.	26		
8. Irrelevant talk	exagg.	4	Interrupt	20
	answers.	11	irrel.	30
9. Social (over) involvement	pokes	10	distract	28
	annoys	18	talks	44
10. Negative feelings	complain	2	belittle	24
	disresp.	8	blames	43
	defies	14		

Open Classes Only

11. Holding back-withdrawn	change	38	review	46
	obliv.	38	timid	50
	slow	42		
12. Critical-compet.	critiz.	5	peers	21
	monop.	12	unrecap.	39

Regular Classes Only

13. Blaming	no help	2	blames	43
	not call	34	too hard	52
14. Approach to teacher	to talk	32	friendly	40
	offer	35	close	59

Added Items

Inattention	31	33
Academic Achievement	80	

Scores	-2SD	-1SD	0	+1SD	+2SD
Originality	4	6	8	10	12
Indep. Lrng.	6	8	10	12	14
Inv.	6	8	10	12	14
Prod. w peers	3	5	7	9	11
Intell. depend.	4	6	8	10	12
Failure anxiety	5	7	9	11	13
Unref.	3	5	7	9	11
Irrel. talk	4	6	8	10	12
Social involv.	4	6	8	10	12
Neg. feelings	5	7	9	11	13
Hd. Back withdrawn	5	7	9	11	13
Crit. compt	4	6	8	10	12
Blaming	4	6	8	10	12
Approach Teacher	4	6	8	10	12
Inattention	2	4	6	8	10
Academic Achievement	1	3	5	7	9

For items 1-35, use the following rating scale:

Never	Rarely	Occasionally	Often	Very Frequently
1	2	3	4	5

COMPARED WITH THE AVERAGE CHILD, HOW OFTEN DOES THIS STUDENT . . .

- | | |
|---|---|
| <input type="checkbox"/> 1. Bring things to class that relate to current topic (e.g., exhibits, collections, articles, etc.)? | <input type="checkbox"/> 19. Follow ideas of others rather than trust his own judgement? |
| <input type="checkbox"/> 2. Say that the teacher doesn't help him enough (i.e., won't show him how to do things, or answer his questions.)? | <input type="checkbox"/> 20. Interrupt when the teacher is talking? |
| <input type="checkbox"/> 3. Use structured materials in new and imaginative ways (vs. doing what is usually done.)? | <input type="checkbox"/> 21. Say that peers won't listen to him or follow his suggestions? |
| <input type="checkbox"/> 4. Tell stories which are exaggerated and untruthful? | <input type="checkbox"/> 22. Tell about or show the teacher things that interest him? |
| <input type="checkbox"/> 5. Criticize the ideas, suggestions or work of peers? | <input type="checkbox"/> 23. Anticipate failure or difficulty when something new is introduced, even before he knows about it? |
| <input type="checkbox"/> 6. Tell stories or describe things in an interesting and colorful fashion (e.g., has an active imagination, etc.)? | <input type="checkbox"/> 24. Belittle or make derogatory remarks about the subject being taught (e.g., "spelling is stupid")? |
| <input type="checkbox"/> 7. Show worry or get anxious about knowing the "right" answers? | <input type="checkbox"/> 25. Get the point of what he reads or hears in class? |
| <input type="checkbox"/> 8. Speak disrespectfully to teacher (e.g., call teacher names, treat teacher as an equal, etc.)? | <input type="checkbox"/> 26. Come to conclusions too quickly (i.e., does not take time to figure out why one answer is better than another.)? |
| <input type="checkbox"/> 9. Discover, develop, write or draw materials which can be used in class work? | <input type="checkbox"/> 27. Come to class with an idea on his mind he wants to explore, talk about and find out more about? |
| <input type="checkbox"/> 10. Poke, torment or tease classmates? | <input type="checkbox"/> 28. Become distracted by others' actions around him? |
| <input type="checkbox"/> 11. Give an answer that has nothing to do with a question being asked? | <input type="checkbox"/> 29. Look to see how others are doing something before he does it (e.g., when teacher gives a direction, etc.)? |
| <input type="checkbox"/> 12. Attempt to monopolize (want to be the center of attention, won't let others talk.)? | <input type="checkbox"/> 30. Make irrelevant remarks during a classroom discussion? |
| <input type="checkbox"/> 13. Introduce into class discussion personal experiences or things he has heard which relate to what is going on in class? | <input type="checkbox"/> 31. Quickly lose attention when the teacher is explaining something? |
| <input type="checkbox"/> 14. Act defiant (i.e., will not do what he is asked to do, says: "I won't do it.")? | <input type="checkbox"/> 32. Seek out the teacher to talk about school or personal things? |
| <input type="checkbox"/> 15. Make self-derogatory remarks (e.g., say "I'm stupid." "I'm not good at that.")? | <input type="checkbox"/> 33. Raise doubt he is paying attention to what the teacher is doing or saying (e.g., looks around, fidgets.)? |
| <input type="checkbox"/> 16. Come up with original thoughts that are unusual but relevant? | <input type="checkbox"/> 34. Say teacher doesn't call on him (e.g., calls on others first.)? |
| <input type="checkbox"/> 17. Act as if he has done work correctly when he has not? | <input type="checkbox"/> 35. Offer to help the teacher (e.g., with classroom chores, favors)? |
| <input type="checkbox"/> 18. Annoy or interfere with the work of his peers in class? | |

For Items 36-60, use the New Rating Scale below:

Not at All	Very Slightly	A Little	Moderately	Quite a Bit	Distinctly	Extremely
1	2	3	4	5	6	7

COMPARED WITH THE AVERAGE CHILD, TO WHAT DEGREE IS THIS STUDENT . . .

- | | |
|--|--|
| <input type="checkbox"/> 36. Unable to change from one task to another when asked to do so (e.g., has difficulty beginning a new task, may get upset or disorganized, etc.)? | <input type="checkbox"/> 45. Sensitive to criticism or correction about his school work (e.g., gets angry, sulks, seems "defeated", etc.)? |
| <input type="checkbox"/> 37. Outwardly nervous when a test is given? | <input type="checkbox"/> 46. Unwilling to go back over his work? |
| <input type="checkbox"/> 38. Oblivious to what is going on in class (i.e., not "with it", seems to be in own "private", closed world? | <input type="checkbox"/> 47. Able to shift from working with one group of children to another without difficulty? |
| <input type="checkbox"/> 39. Not receptive to the ideas of peers (e.g., doesn't listen to them, does what he wants)? | <input type="checkbox"/> 48. Swayed by the opinion of his peers? |
| <input type="checkbox"/> 40. Friendly in his attitude toward the teacher? | <input type="checkbox"/> 49. Able to apply what he has learned to a new situation? |
| <input type="checkbox"/> 41. Receptive to ideas offered by the teacher (e.g., listens to them, will discuss them even though he may not agree)? | <input type="checkbox"/> 50. Socially timid or shy (i.e., does not initiate contact with other children)? |
| <input type="checkbox"/> 42. Slow in physical movements? | <input type="checkbox"/> 51. Able to organize his own work (e.g., before he starts gets the materials needed)? |
| <input type="checkbox"/> 43. Prone to blame circumstances (the teacher, the test) when things don't go well for him? | <input type="checkbox"/> 52. Prone to say school work is too hard (e.g., that too much is expected, he "can't get it")? |
| <input type="checkbox"/> 44. Unable to refrain from talking (e.g., chatters and keeps talking when he should not)? | |

COMPARED TO THE AVERAGE CHILD, TO WHAT DEGREE DOES THE CHILD . . .

- | | |
|---|---|
| <input type="checkbox"/> 53. Know what he is trying to learn when working on a project (i.e., can tell you or show you if asked)? | <input type="checkbox"/> 57. Stay with things for extended periods of time (i.e., able to persist)? |
| <input type="checkbox"/> 54. Respond positively to peers in class (i.e., to overtures, offers to help, etc.)? | <input type="checkbox"/> 58. Work well with a variety of children (vs. only one or two others)? |
| <input type="checkbox"/> 55. Rush through his work and therefore make unnecessary mistakes? | <input type="checkbox"/> 59. Like to be physically close to the teacher (e.g., by touching, sitting or being near)? |
| <input type="checkbox"/> 56. Have difficulty deciding what to do when given a choice between two or more things? | <input type="checkbox"/> 60. Achieve academically (i.e., is he progressing in his learning)? |

System of Multicultural Pluralistic Assessment

Jane R. Mercer • June E. Lewis

Parent Interview Record Form

Child's Name _____ Sex _____ Age _____
 Last First Middle Years Months
 Home Address _____
 Street City State Zip Code
 Names of Parents _____
 Father Mother
 School _____ Grade _____
 Name of Person Interviewed _____ Location of Interview _____
 Interviewed by _____ Language Used in Interview _____

CHILD'S ETHNIC GROUP

____ Black
 ____ Hispanic
 ____ White
 ____ Other (specify: _____)

CHILD'S AGE

Year Month Day
 Date of Interview _____
 Date of Birth _____
 Age at Interview _____

SOCIOCULTURAL SCALES

Scale	Raw Score	Scaled Score*	
		Own Ethnic Group	School Culture
Family Size	_____	_____	_____
Family Structure	_____	_____	_____
Socioeconomic Status	_____	_____	_____
Urban Acculturation	_____	_____	_____

* If local norms are used, specify: _____

HEALTH HISTORY INVENTORIES

Inventory	DK Score*	Raw Score
Prenatal/Postnatal	____(4)____	_____
Trauma	____(3)____	_____
Disease and Illness	____(5)____	_____
Vision	____(3)____	_____
Hearing	____(1)____	_____

* Do not profile an inventory score if the DK score equals or exceeds the value shown in parentheses.

ADAPTIVE BEHAVIOR INVENTORY FOR CHILDREN (ABIC)

Scale	Raw Score*	Scaled Score
Family (F)	_____	_____
Community (C)	_____	_____
Peer Relations (P)	_____	_____
Nonacademic School Roles (S)	_____	_____
Earned/Consumer (E)	_____	_____
Self-Maintenance (M)	_____	_____

Sum _____

ABIC Average Scaled Score (Sum ÷ 6) _____

V ____ (4) N ____ (30) DK ____ (9)

* Do not compute scores for the six ABIC scales if the V, N, or DK score equals or exceeds the value shown in parentheses.

NOTES



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SOCIOCULTURAL SCALES

Before asking the questions, explain the purpose of the interview by saying:

As you know, (name of school or agency) would like to learn more about (child's name) so that a good educational program can be planned for him/her. For example, we need to know what kinds of things _____ does at home and we need to know something about his/her health history. The questions that I am going to ask you take about an hour. Your

answers will be kept confidential. Every question is important and you should try to answer all of them. However, if there is a question that you are unable to answer or don't wish to answer, please tell me.

All right, if you are ready, let's begin.

Family Size Scale

Questions	Score
1. a. How many full brothers and sisters does _____ have? _____ brothers and sisters	a _____
b. How many persons live in the household, including _____ and yourself? _____ persons	b _____
$a + b$	_____ $\times 1 =$

RS

Family Size Scale TOTAL

Family Structure Scale

Questions	Use answers to questions 2-4 to answer a-e below	Score
2. What relation are you to _____? _____ biological mother _____ biological father _____ other (specify: _____)	a. Is respondent biological mother or father of child? 0 no 1 yes	a _____
3. What relation are you to the head of the household? _____ spouse (wife or husband) _____ respondent is head of household _____ other (specify: _____)	b. Is child biological son or daughter of head of household? 0 no 1 yes	b _____
4. What is _____'s relation to the head of the household? _____ biological son or daughter _____ other (specify: _____)	c. Is mother or mother substitute living with spouse? 0 no 1 yes	c _____
	d. Is head of household male? 0 no 1 yes	d _____
	e. Does child live with both biological parents? 0 no 1 yes	e _____
	$a + b$	_____ $\times 3 =$
	$c + d + e$	_____ $\times 4 =$

Family Structure Scale TOTAL

Socioeconomic Status Scale

Questions	Use answers to questions 5-7 to answer a-c below	Score
5. Does the head of the household help support the family by working? _____ no _____ yes If yes, ask: Would you please describe the kind of work he/she does? _____	a. Do wages earned by head of household provide most of the family income? 0 no 1 yes	a _____
6. What is the chief source of income for the family? _____ wages of head of household _____ other (specify: _____)	b. Occupation of head of household? _____	b _____
7. Does the family have any other sources of income? _____ no _____ yes (specify: _____)	c. Does family depend on public funds for support? 0 family supported entirely by public funds 1 family supported in part by public funds 2 family receives no support from public funds	c _____
	$a + b + c$	_____ $\times 1 =$

Socioeconomic Status Scale TOTAL

Urban Acculturation Scale

Questions	Score
<p>8. Now I'm going to read three statements to you. After each statement, please tell me whether you agree or disagree with what it says.</p> <p>a. Here is the first statement: When people are born, the success or failure that they are going to have is already determined, so they might as well accept it.</p> <p>Do you agree or disagree with this?</p> <p>0 agree 1 disagree</p> <p>b. Here is the second statement: Nowadays a person has to live pretty much for today and let tomorrow take care of itself.</p> <p>Do you agree or disagree with this?</p> <p>0 agree 1 disagree</p> <p>c. Here is the last statement: Planning only makes a person unhappy since plans hardly ever work out.</p> <p>Do you agree or disagree with this?</p> <p>0 agree 1 disagree</p> <p>Sense of Efficacy Factor $a + b + c$</p>	<p>a ____</p> <p>b ____</p> <p>c ____</p> <p>____ $\times 2 =$ <input type="text"/></p>
<p>9. a. Some people belong to many organizations while others do not. About how often do you go to PTA or other meetings or special events at ____'s school?</p> <p>2 a few times a month, 1 a few times a year, or 0 never?</p> <p>b. About how often do you go to the meetings of a church or religious group?</p> <p>2 a few times a month, 1 a few times a year, or 0 never?</p> <p>c. About how often do you go to the meetings of neighborhood improvement or community action groups, not counting church or religious groups?</p> <p>2 a few times a month, 1 a few times a year, or 0 newer?</p> <p>d. About how often do you go to the get-togethers of social groups where people meet because they enjoy doing things together, not counting church or religious groups?</p> <p>2 a few times a month, 1 a few times a year, or 0 never?</p> <p>Community Participation Factor $a + b + c + d$</p>	<p>a ____</p> <p>b ____</p> <p>c ____</p> <p>d ____</p> <p>____ $\times 2 =$ <input type="text"/></p>
<p>Column 1 Subtotal <input type="text"/></p>	

Questions	Score
<p>10. a. What was the highest grade in school that you (mother or mother substitute) completed?</p> <p>____ grade</p> <p>b. What was the highest grade in school completed by the head of the household?</p> <p>____ grade</p> <p>c. Where did you (mother or mother substitute) spend most of your childhood?</p> <p>____ City or Town</p> <p>____ State or Foreign Country</p> <p>____ moved constantly</p> <p>If place is unfamiliar, ask: How large a place was that?</p> <p>d. Where did the head of the household spend most of his/her childhood?</p> <p>____ City or Town</p> <p>____ State or Foreign Country</p> <p>____ moved constantly</p> <p>If place is unfamiliar, ask: How large a place was that?</p> <p>e. (Rating of respondent's English usage)</p> <p>Anglicization Factor $a + b + c + d + e$</p>	<p>a ____</p> <p>b ____</p> <p>c ____</p> <p>d ____</p> <p>e ____</p> <p>____ $\times 6 =$ <input type="text"/></p>
<p>11. a. (Population of place where mother or mother substitute spent childhood—from question 10c)</p> <p>b. (Population of place where head of household spent childhood—from question 10d)</p> <p>Urbanization Factor $a + b$</p>	<p>a ____</p> <p>b ____</p> <p>____ $\times 1 =$ <input type="text"/></p>
<p>Column 2 Subtotal <input type="text"/></p> <p>Column 1 Subtotal <input type="text"/></p> <p>Urban Acculturation Scale TOTAL <input type="text"/></p>	

After asking the questions on the Sociocultural Scales, turn to page 8 of the record form for the ABIC.

HEALTH HISTORY INVENTORIES

After asking the ABIC questions, introduce the Health History Inventories by saying:

Now I am going to ask you some questions about ____'s health. Would you please think back to when you were pregnant with ____.

Prenatal/Postnatal Inventory

Questions	Score
1. How often did you see a doctor while you were pregnant with ____? 0 regularly, 1 a few times, or 2 not at all	1 <input type="checkbox"/>
2. Were you sick or did you have any complications while you were pregnant with ____? ____no ____yes If yes, ask: What kind of trouble did you have? _____	2 <input type="checkbox"/>
3. Did you have measles or any other childhood disease like that while you were carrying ____? ____no ____yes If yes, ask: What was it you had? _____	3 <input type="checkbox"/>
4. Did you have any trouble giving birth to ____? ____no ____yes If yes, ask: What was the trouble? _____	4 <input type="checkbox"/>
5. Was ____ born earlier than he/she was expected? ____no ____yes If yes, ask: How many weeks early was ____ born? ____weeks	5 <input type="checkbox"/>
6. How much did ____ weigh when he/she was born? ____lbs. ____oz.	6 <input type="checkbox"/>
Column 1 Subtotal	DK RS

Questions	Score
7. a. Was there anything unusual or was there anything wrong with ____ when he/she was born? 0 no 1 yes If yes, ask: b. What was wrong? _____ _____	a- b- a + b 7
8. a. Was ____ born in a hospital? 1 no 0 yes If yes, ask: b. How long did ____ stay in the hospital after he/she was born? ____days c. Was ____ placed in an incubator or oxygen tent? 0 no 1 yes	a- b- c- a + b + c 8
9. Was ____ an Rh baby? 0 no 1 yes	9
10. a. Did ____ have any illness or anything wrong with him/her during his/her first year? 0 no 1 yes If yes, ask: b. Did a doctor see ____ about this? 0 no 1 yes c. What was the illness or what was wrong? _____ _____	a- b- c- a + b + c 10
Column 2 Subtotal	DK
Column 1 Subtotal	DK
Prenatal/Postnatal Inventory TOTAL	DK

Trauma Inventory

Questions	Score
11. a. Has _____ ever had a temperature of 104 degrees or higher for more than a few hours? 0 no 1 yes If yes, ask:	a _____
b. How long was it before the fever broke? _____ hours	b _____
c. Did a doctor see _____ about this? 0 no 1 yes If yes, ask:	c _____
d. What did the doctor say was the matter? _____	d _____
e. Did _____ go to a hospital because of the fever? 0 no 1 yes If yes, ask:	e _____
f. How long was _____ in the hospital? _____ days	f _____
g. How long was it from the time the fever started until _____ was recovered and able to go to school or play as usual? _____ days	g _____
a + b + c + d + e + f + g	11 <input type="checkbox"/>
12. a. Has _____ ever been knocked unconscious? 0 no 1 yes If yes, ask:	a _____
b. How long was _____ unconscious? _____ hours	b _____
c. How long was it before _____ was recovered and able to go to school or play as usual? _____ days	c _____
a + b + c	12 <input type="checkbox"/>
13. a. Has _____ ever been in a coma or "out of his/her head" with some illness or from some other condition? 0 no 1 yes If yes, ask:	a _____
b. How long was _____ in a coma? _____ days	b _____
c. Did a doctor see _____ about this? 0 no 1 yes If yes, ask:	c _____
d. What did the doctor say was the matter? _____	d _____
e. Did _____ go to a hospital for this condition? 0 no 1 yes If yes, ask:	e _____
f. How long was _____ in the hospital? _____ days	f _____
g. How long was it from the time the coma started until _____ was recovered and able to go to school or play as usual? _____ days	g _____
a + b + c + d + e + f + g	13 <input type="checkbox"/>
Column 1 Subtotal	DK RS

Questions	Score
14. a. Has _____ ever had an accident or injury that troubled him/her quite a bit physically? 0 no 1 yes If yes, ask:	a _____
b. Did a doctor see _____ about this? 0 no 1 yes If yes, ask:	b _____
c. What did the doctor say was the matter? _____	c _____
d. Did _____ go to a hospital to get treatment for the accident or injury? 0 no 1 yes If yes, ask:	d _____
e. How long was _____ in the hospital? _____ days	e _____
f. How long was it from the time of the accident or injury until _____ was recovered and able to go to school or play as usual? _____ days	f _____
a + b + c + d + e + f	14 <input type="checkbox"/>
15. a. Has _____ ever had any kind of operation? 0 no 1 yes If yes, ask:	a _____
b. What was the operation for? _____	b _____
c. Did _____ go to a hospital for this operation? 0 no 1 yes If yes, ask:	c _____
d. How long was _____ in the hospital? _____ days	d _____
e. How long was it from the time of the operation until _____ was recovered and able to go to school or play as usual? _____ days	e _____
a + b + c + d + e	15 <input type="checkbox"/>
16. a. Has _____ ever been to a hospital for any other sickness or trouble you have not already told me about? 0 no 1 yes If yes, ask:	a _____
b. How long was _____ in the hospital? _____ days	b _____
c. How long was it from the time the sickness or trouble started until _____ was recovered and able to go to school or play as usual? _____ days	c _____
a + b + c	16 <input type="checkbox"/>
Column 2 Subtotal	DK RS
Column 1 Subtotal	DK RS
TOTAL	DK RS

Disease and Illness Inventory

Questions	Score
17. a. Does _____ take any kind of medicine or pills regularly for some condition, not counting vitamins? 0 no 1 yes If yes, ask: b. Did a doctor say that _____ should take this medicine? 0 no 1 yes c. How many weeks has _____ been taking this medicine? _____ weeks d. What is the medicine for? _____	a _____ b _____ c _____ d _____ a + b + c + d 17 <input type="checkbox"/>
18. a. Has _____ ever had heart trouble? 0 no 1 yes If yes, ask: b. How much does this condition interfere with _____'s activities? Is there 2 considerable limitation, 1 some limitation, or 0 none at all? c. How many days is he/she usually absent from school during a month because of heart trouble? _____ days	a _____ b _____ c _____ a + b + c 18 <input type="checkbox"/>
19. a. Has _____ ever had kidney trouble? 0 no 1 yes If yes, ask: b. How much does this condition interfere with _____'s activities? Is there 2 considerable limitation, 1 some limitation, or 0 none at all? c. How many days is he/she usually absent from school during a month because of kidney trouble? _____ days	a _____ b _____ c _____ a + b + c 19 <input type="checkbox"/>
20. a. Has _____ ever had diabetes? 0 no 1 yes If yes, ask: b. How much does this condition interfere with _____'s activities? Is there 2 considerable limitation, 1 some limitation, or 0 none at all? c. How many days is he/she usually absent from school during a month because of diabetes? _____ days	a _____ b _____ c _____ a + b + c 20 <input type="checkbox"/>
21. a. Has _____ ever had cerebral palsy? 0 no 1 yes If yes, ask: b. How much does this condition interfere with _____'s activities? Is there 2 considerable limitation, 1 some limitation, or 0 none at all? c. How many days is he/she usually absent from school during a month because of cerebral palsy? _____ days	a _____ b _____ c _____ a + b + c 21 <input type="checkbox"/>
Column 1 Subtotal	DK RS

Questions	Score
22. a. Has _____ had frequent colds or coughs? 0 no 1 yes If yes, ask: b. How much does this condition interfere with _____'s activities? Is there 2 considerable limitation, 1 some limitation, or 0 none at all? c. How many days is he/she usually absent from school during a month because of colds or coughs? _____ days	a + b + c
23. a. Has _____ ever had red measles, also called two-week measles or rubeola? 0 no 1 yes If yes, ask: b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with measles? c. Did the illness leave any aftereffects? 0 no 1 yes	a + b + c
24. a. Has _____ ever had scarlet fever? 0 no 1 yes If yes, ask: b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with scarlet fever? c. Did the illness leave any aftereffects? 0 no 1 yes	a + b + c
25. a. Has _____ ever had rheumatic fever? 0 no 1 yes If yes, ask: b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with rheumatic fever? c. Did the illness leave any aftereffects? 0 no 1 yes	a + b + c
26. a. Has _____ ever had polio? 0 no 1 yes If yes, ask: b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with polio? c. Did the illness leave any aftereffects? 0 no 1 yes	a + b + c
27. a. Has _____ ever had diphtheria? 0 no 1 yes If yes, ask: b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with diphtheria? c. Did the illness leave any aftereffects? 0 no 1 yes	a + b + c
28. a. Has _____ ever had meningitis or sleeping sickness? 0 no 1 yes If yes, ask: b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with meningitis or sleeping sickness? c. Did the illness leave any aftereffects? 0 no 1 yes	a + b + c
Column 2 Subtotal	

Disease and Illness Inventory (continued)

Score	Questions	Score
a	29. a. Has _____ ever had tuberculosis? 0 no 1 yes If yes, ask:	a
b	b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with tuberculosis?	b
c	c. Did the illness leave any aftereffects? 0 no 1 yes	c
	a + b + c	29
22	30. a. Has _____ ever had whooping cough? 0 no 1 yes If yes, ask:	a
a	b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with whooping cough?	b
b	c. Did the illness leave any aftereffects? 0 no 1 yes	c
	a + b + c	30
23	31. a. Has _____ ever had pneumonia? 0 no 1 yes If yes, ask:	a
a	b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with pneumonia?	b
b	c. Did the illness leave any aftereffects? 0 no 1 yes	c
	a + b + c	31
24	32. a. Has _____ ever had an epileptic seizure, a convulsion, or a fit? 0 no 1 yes If yes, ask:	a
a	b. Does _____ still have seizures or convulsions? 0 no 1 yes	b
b	c. Was or is he/she on medication? 0 no 1 yes	c
	d. How much does this condition interfere with _____s activities? Is there 2 considerable limitation, 1 some limita- tion, or 0 none at all?	d
	a + b + c + d	32
25	33. a. Has _____ ever had any other sickness that I haven't mentioned? 0 no 1 yes If yes, ask:	a
a	b. Was _____ 2 very sick, 1 fairly sick, or 0 just slightly sick with this illness?	b
b	c. Did the illness leave any aftereffects? 0 no 1 yes	c
	a + b + c	33
26	34. As you think about _____s health while he/she has been growing up, would you say that he/she has been sick 2 a lot of the time, 1 fairly often, or 0 not much at all?	34
	Column 3 Subtotal	DK RS
	Column 2 Subtotal	DK RS
	Column 1 Subtotal	DK RS
	Disease and Illness Inventory TOTAL	DK RS

Vision Inventory

Questions	Score
35. Has _____ ever had an operation on his/her eyes? _____no _____yes If yes, ask: What was the operation for? _____ * Any Critical Response receives a score of 4.	35
36. a. Does _____ wear glasses or contact lenses? 0 no 1 yes If yes, ask:	a
b. Does he/she wear them 0 some of the time, or 1 all of the time?	b
c. Does he/she also use a magnifying glass to read better? 0 no 1 yes	c
d. Does _____ wear bifocals? 0 no 1 yes	d
a + b + c + d	36
37. Do _____s eyelids often become red and swol- len? 0 no 1 yes	37
38. Do _____s eyes often water? 0 no 1 yes	38
39. Are _____s eyes often bloodshot or do they look pink? 0 no 1 yes	39
40. Does _____ ever say that his/her eyes burn or itch? 0 no 1 yes	40
41. Does _____ blink or rub his/her eyes more than is usual? 0 no 1 yes	41
42. Does _____ sometimes close or cover one eye or hold his/her head to one side while reading or watching TV? 0 no 1 yes	42
Vision Inventory TOTAL	DK RS

Hearing Inventory

Questions	Score
43. Has _____ ever had an operation on his/her ears? 0 no 1 yes	43
44. Does _____ have trouble locating the source of sounds? 0 no 1 yes	44
45. Does _____ wear a hearing aid? 0 no 1 yes	45
Hearing Inventory TOTAL	DK RS

Then say:

Well, that finishes the interview. Let me check quickly
to make certain that we have covered everything.

After checking, say:

Thank you very much for your time.

ADAPTIVE BEHAVIOR INVENTORY FOR CHILDREN (ABIC)

(The ABIC questions are on pages 35-55 of the Parent Interview Manual.)

For each question asked, enter 0, 1, 2, N (No Opportunity or Not Allowed), or DK (Don't Know) in the answer space.

First, ask questions 1 through 35. Next, find the starting-point question appropriate for the age of the child. (Starting-point questions are marked with arrows.)

TO LOCATE BASELINE: Work backward from the starting-point question until there are 8 consecutive 1, 2, or DK responses not interrupted by a 0 or N. (Veracity questions, indicated by circles, are not included.)

TO LOCATE CEILING: From the starting-point question, work forward until there are 8 consecutive 0 or N responses not interrupted by a 1, 2, or DK. (Veracity questions, indicated by circles, are not included.)

1	26	51	76	101	126	151	176	201	226
2	27	52	77	102	127	152	177	202	227
3	28	53	78	103	128	153	178	203	228
4	29	54	79	104	129	154	179	204	229
5	30	55	80	105	130	155	180	205	230
6	31	56	81	106	131	156	181	206	231
7	32	57	82	107	132	157	182	207	232
8	33	58	83	108	133	158	183	208	233
9	34	59	84	109	134	159	184	209	234
10	35	60	85	110	135	160	185	210	235
11	36	61	86	111	136	161	186	211	236
12	37	62	87	112	137	162	187	212	237
13	38	63	88	113	138	163	188	213	238
14	39	64	89	114	139	164	189	214	239
15	40	65	90	115	140	165	190	215	240
16	41	66	91	116	141	166	191	216	241
17	42	67	92	117	142	167	192	217	242
18	43	68	93	118	143	168	193	218	
19	44	69	94	119	144	169	194	219	
20	45	70	95	120	145	170	195	220	
21	46	71	96	121	146	171	196	221	
22	47	72	97	122	147	172	197	222	
23	48	73	98	123	148	173	198	223	
24	49	74	99	124	149	174	199	224	
25	50	75	100	125	150	175	200	225	

After asking the ABIC questions, turn to page 4 of the record form for the Health History Inventories.

V	N	DK
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discontinue scoring if any of the following critical values are obtained:
V = 4 or more N = 30 or more DK = 9 or more

	Family F	Community C	Peer Relations P	Nonacademic School Roles S	Earning/Consumer E	Self-Maintenance M
No. of 2's:	____ × 2 = ____	____ × 2 = ____	____ × 2 = ____	____ × 2 = ____	____ × 2 = ____	____ × 2 = ____
No. of 1's and DK's:	____ × 1 = ____	____ × 1 = ____	____ × 1 = ____	____ × 1 = ____	____ × 1 = ____	____ × 1 = ____
Total:	RS ____	RS ____	RS ____	RS ____	RS ____	RS ____

NAME: _____

SCHOOL: _____

HAHNEMANN BEHAVIOR SCALE RESULTS

Behavior	Item Scores	Raw Scores	STANDARD SCORE PROFILE				
Regular & Open Classes			-2SD	-1SD	0	+1SD	+2SD
1. Originality	uses thoughts 3 — 16 — develops 9 — explores 27 —		Originality	4 6 8 10 12 14 16 18 20			
2. Independent Learning	comp. 25 — aware 53 — applies 49 — persists 57 — organiz. 51 —		Indep. Learning	6 8 10 12 14 16 18 20 22 24 26 28 30 32			
3. Involvement	brings 1 — show 22 — imagin. 6 — recept. 41 — exper. 13 —		Inv.	6 8 10 12 14 16 18 20 22 24 26			
4. Productive with peers	shifts 47 — variety 58 — responds 54 —		Prod. w peers	3 5 7 9 11 13 15 17 19 21			
5. Intellectual dependency	follows 19 — swayed 48 — looks 29 — choices 56 —		Intell. depend.	4 6 8 10 12 14 16 18 20 24			
6. Failure anxiety	rgt. ans. 7 — tests 37 — selfderog. 15 — oversens. 45 — expect 23 —		Failure anxiety	5 7 9 11 13 15 17 19 21 23 29			
7. Unreflectiveness	claims 17 — rushes 55 — conclud. 28 —		Unref.	3 5 7 9 11 13 15 17			
8. Irrelevant talk	exagg. 4 — interrupt 20 — answers 11 — irrel. 30 —		Irrel. talk	4 6 8 10 12 14			
9. Social (over) involvement	pokes 10 — distract 28 — annoys 18 — talks 44 —		Social involv.	4 6 8 10 12 14 16 18 20 22			
10. Negative feelings	complain 2 — belittle 24 — disresp. 8 — blames 43 — defies 14 —		Neg. feelings	5 7 9 11 13 15 17 19 25			
Open Classes Only							
11. Holding back-withdrawn	change 38 — review 46 — obliv. 38 — timid 90 — slow 42 —		Hd. Back withdrawn	5 7 9 11 13 15 17 19 21 25 31			
12. Critical-compet.	critic. 5 — peers 21 — monop. 12 — unrecap. 39 —		Crit. comp	4 6 8 10 12 14 16 22			
Regular Classes Only							
13. Blaming	no help 7 — blames 43 — not call 34 — too hard 52 —		Blaming	4 6 8 10 12 14 16 22			
14. Approach to teacher	to talk 32 — friendly 40 — offer 35 — close 59 —		Approach Teacher	4 6 8 10 12 14 16 18 20 22 24			
Added Items							
Inattention	31 — 33 —			2 4 6 8 10			
Academic Achievement	60 —			1 3 5 7			

SOMPA RESULTSABIC (Adaptive Behavior Inventory)

Family:

Community:

Peer Relations:

Non-Academic Roles:

Earner/Consumer:

Self-Maintenance:

WISC-R

V.

P.

F.S.

ELP

V.

P.

F.S.

APPENDIX E

Table 26

Number of Black, White and Chicano LH and RSP Students
NOT Placed Using the SOMPA ABIC, SOMPA ELP and WISC-R
 Based Upon Mercer's 3rd Percentile Criteria and
 the Number Who Were Selected

SOMPA ABIC

SOMPA ELP

WISC-R

	Selected	Missed	Selected	Missed	Selected	Missed
LH Black	20	3	22	1	16	9
White	22	4	22	4	20	6
Chicano	14	1	14	1	12	3
64 Total	56	8	58	6	48	18

RSP Black	7	0	7	0	6	1
White	4	0	4	0	3	1
Chicano	15	0	15	0	15	0
26 Total	26	0	26	0	24	2

*3rd Percentile on an IQ test (70) used to identify for Special Education;
 21 or less scored on the SOMPA ABIC.

APPENDIX F

Table 27

Mercer's Means and Abridged SOMPA Means for the WISC-R
Subtest Scores for Blacks, Whites and Chicanos

<u>Ethnic</u>	<u>Test</u>	<u>Mercer's Means</u>	<u>Abridged SOMPA Means</u> (Yaryan Study)
Black	WISC-R Verbal Scores	88.7	80.6
White	"	102.0	82.0
Chicano	"	87.7	84.3
<hr/>			
Black	WISC-R Performance Scores	90.1	83.4
White	"	103.8	90.0
Chicano	"	97.9	96.4
<hr/>			
Black	WISC-R Full- Scale Scores	88.4	80.6
White	"	103.1	84.7
Chicano	"	91.9	89.3