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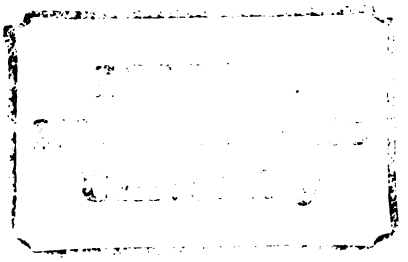

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A CROSS-CULTURAL STUDY OF AN INSTRUMENT FOR MEASURING THE PROBLEM BEHAVIOR OF CHILDREN IN REGULAR CLASSES IN THE PUBLIC SCHOOLS OF JORDAN

By

Khawla Ahmad Yahya

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ABSTRACT

A CROSS-CULTURAL STUDY OF AN INSTRUMENT FOR MEASURING THE PROBLEM BEHAVIOR OF CHILDREN IN REGULAR CLASSES IN THE PUBLIC SCHOOLS OF JORDAN

By

Khawla Ahmad Yahya

This study was undertaken as a first step in the preparation of a screening device to be used in the emerging field of special education in the country of Jordan. The Devereux Elementary School Behavior Rating Scale (DESB) was selected because it can be administered and scored by teachers, and provides information about behaviors that are immediately relevant to the conduct of the classroom. The scale provides a profile of 11 dimensions of overt problem behavior.

The purpose of the study was to prepare an Arabic translation of the DESB scale and to compare the data derived from its application in Jordan with data from the use of the original DESB in the U.S.

For this study a sample of students in Jordan was selected to match the U.S. standardization sample. A total of 603 subjects were finally included in the study, approximately 100 from each grade level, first through sixth grade. Subjects were also divided by sex and nationality:

that is, Palestinian and Jordanian. In addition, 12 subjects identified by teachers as displaying disruptive behaviors in the classroom were included.

The findings are reported in terms of the following six research questions:

1. How do the mean scores on the 11 DESB factors for the Jordan sample compare to those for the U.S. standardization sample?
2. Is the pattern of intercorrelations of factor scores comparable for the Jordan and U.S. sample?
3. How do sex differences in factor means compare for the U.S. and Jordan samples?
4. How do the relationships between reading and arithmetic achievement scores and the factor scores compare for the U.S. and Jordan samples?
5. How do the scores of Jordanian children, selected by teachers as disturbing compare to the U.S. and Jordan norms?
6. What are the differences in factor scores between Palestinian and Jordanian children?

Rater agreement was also investigated as an important aspect of scale development.

Following is a summary of the major findings of the study:

1. The level of rater agreement for the Arabic DESB in Jordan appears to be satisfactory and encouraging

for the future development of the scale. Rater agreement, using a stringent definition of agreement, varied from 66.7% to 79.5% for various subgroups.

2. There is a general trend for the mean scores on those DESB factors relating to disruptive behavior to be higher in the Jordan than in the U.S. sample.
3. When the mean raw factor scores for the Jordan and the U.S. samples are ranked the rankings correspond closely, offering some tangential support for the belief that the scale is being interpreted similarly by the raters in the two cultures, and that child behavior is reasonably similar.
4. The pattern of intercorrelations of the subscales for the Jordan sample was judged to be sufficiently similar to the U.S. pattern to suggest a similar factor structure. Eighty-five percent of the corresponding pairs of correlation coefficients were in the same direction.
5. The consistent sex differences in DESB factor scores reported for the U.S. sample were not found in the Jordan sample.
6. The pattern of correlation of DESB factor scores with reading and arithmetic achievement in the Jordan sample approximated the pattern in the U.S. sample. However, the correlations were consistently higher in the Jordan sample.

7. Jordanian children identified by teachers as disturbed tend to have DESB factor scores which fall outside of the range of normal on a profile developed from the DESB Jordan sample data.
8. Mean DESB factor scores did not differ significantly for the Palestinian and Jordanian subgroups.

The pattern of results for this Arabic translation of the DESB appear to replicate in many ways the results that have been obtained with the U.S. version of the scale. These findings are seen as supporting further development of standardization data for the Jordan population using this Arabic translation.

ACKNOWLEDGMENTS

The writer would like to take this opportunity to express sincere and deep appreciation to Dr. Keller for his meaningful and timely contributions to this dissertation. Appreciation must be expressed for the many hours he has spent in guidance.

To Drs. Mange, Pernell and Vinsonhaler, members of the doctoral guidance committee, for providing a professional atmosphere truly conducive to advanced graduate study.

My parents, brothers and sisters must be thanked for their continual support. Each has been a unique source of strength in encouraging the completion of my graduate studies.

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CHAPTER 1

INTRODUCTION AND REVIEW OF THE LITERATURE

This study describes the preparation and use of a measure of child classroom behavior, the Devereux Elementary School Behavior Rating Scale (DESB), in the country of Jordan. The long range purpose of this translation, and beginning development, of an Arabic version of the DESB scale is to contribute an assessment device to the emerging field of special education in that country. The DESB scale measures classroom behavior that interferes with academic learning. Therefore, it is to the area of emotionally impaired that this study will make its primary contribution.

Services for Handicapped Children in Jordan

At present only a very small percentage of the handicapped population in Jordan is being served in educational programs. In the Queen Alia Fund Study (1979) it was reported that only 7.5% of the handicapped population is receiving services. The existing programs are mainly for the mentally retarded, blind, deaf, and physically handicapped children from the ages of 5 through 16. These services are rendered through many different agencies working in the field of special education,

voluntary private associations as well as governmental agencies.

Education is offered cooperatively to the people of Jordan by the Ministry of Education, Ministry of Agriculture, Ministry of Social Welfare, and private education. The United Nations Relief and Works Agency (UNRWA), provides education for 21% of the student population, but this is just responsible for the education of the Palestinian refugee children. Also the Ministry of Defense has offered education for the children of soldiers. All of these educational efforts are supervised by the Ministry of Education which has the opportunity to control the education process in the country as a whole.

Although interest in special education has been growing in recent years, there is no specific legislation supporting special education or vocational rehabilitation. There is a constitutional basis for such legislation, however. Under the constitution of the Hashemite Kingdom of Jordan everyone is guaranteed equal opportunities for education. Article Six of the Jordanian constitution reads as follows:

> The state, within its potentialities, shall guarantee work, education, security, and equal opportunities for all citizens. (Shami, p. 4)

Article 20 states:

> Primary education is compulsory and free in all government schools. (Shami, p. 4)

Past legislation, while not specifically referring to special education, also would offer a legal basis for support

of special education. Education Law No. 16 (Shami, p. 5), the most important law affecting the educational system, guarantees equal educational opportunities for all citizens, male and female.

It is reasonable to assume that special education services will develop in the near future. In the past there was less pressure for services because in an agricultural society children were taken care of in the social structure of the extended family. Jordan has shifted from an agricultural to an industrial society with a resulting change in family structure. In the past, Jordanian parents looked to their extended family of grandparents, aunts, uncles, and friends for advice on how to handle particular child problems and how to organize family life. The extended family advice depended upon standards of acceptability for children's social behavior. The modern family finds itself separated from relatives and life long friends. It moves frequently to gain economic and social advantages. It is highly likely, therefore, that parents will be increasingly dependent on the schools and other agencies for help when problems arise.

As implied in what has been said above there are no special classes or special provisions in the schools for children who are emotionally disturbed. There are in Jordan institutional programs for juvenile delinquents and for psychotic children, but since the DESB scale is considered

here as primarily useful in the normal school setting, these programs are not of relevance to this study. In the regular school system, disturbing students are excluded from school if the school counselor, to whom a teacher would refer a disturbing student, is unable to solve the problem either on his own or in cooperation with the child's parents.

Selection of a Measuring Instrument

In the U.S. and in other Western countries many instruments for assessing the characteristics of emotionally disturbed children have been developed and are in wide use. The first task of the present writer was to select from among the many possibilities an instrument that would be useful in a country only in the beginning of its attempts to meet the needs of disturbed children. It was decided at the outset to look for a measure of child behavior that would not require for its administration and interpretation the skills of psychologists or other supportive personnel who would be in short supply in a developing country. This consideration immediately ruled out projective tests such as the Rorschach, thematic apperception tests, sentence completion tests or other devices that rely on the interpretations of professionals skilled in their use.

These projective devices were also eliminated on the basis of a second consideration: namely, that the measures be rather immediately relevant to the needs of teachers. In addition to excluding the kinds of instruments discussed

above this consideration also ruled out measures of personality traits or other abstract variables that have often been developed and used for research studies with a theoretical orientation.

A teacher administered behavior rating scale measuring observable behavior seemed to be the measuring instrument of choice. It seemed logical that in program development in Jordan the first efforts should be directed toward early school age children. Therefore, a behavior rating scale appropriate for elementary school age children was sought.

Early in the search of the literature the Devereux Elementary School Behavior scale (DESB) was discovered. It appeared to be in favor with both practitioners and researchers as a measure of disturbing classroom behavior. As evidence of its wide use Von Isser, Quay, and Love (1980) in selecting several tests to use in a factor analytic study seeking to define the basic dimensions of deviant classroom behavior chose, as one measure, the DESB which they state is ". . . one of the most widely used instruments" (p. 272).

One of the strongest recommendations for its selection is the fact that it has been used as the criterion variable in recent research studies. These studies, in which the DESB factors are assumed to be valid measures of the designated behavioral traits, are reviewed below.

In concluding his review in the Buros Mental Measurement Yearbook (Buros, 1972), Littell concludes, "The DESB

is a sophisticated and carefully developed rating scale. The behaviors to be rated are clearly described and instructions for rating are carefully given" (p. 69).

Spivack, the developer of the DESB, and his collaborators summarize their conclusions as to the usefulness of the DESB in their report of its use in a cross-cultural study,

> The DESB is now considered to be useful to educators and psychologists in the two countries (the USA and France), (a) as a means of early screening for children with behavior patterns inimical to achievement, (b) for communication from the teacher to other professions about the specific nature of the behavior of a child displaying learning difficulties, (c) for a baseline and stimulus for the development of teaching strategies to overcome difficulties, and (d) as a means to assess change following program implementation. (Spivack, Swift, DeLisser, Danset, Denset-Leger, and WinnyKamen, 1972, p. 493)

In conclusion, the DESB seems sufficiently well-established and well-regarded to justify its selection for use in Jordan.

The Devereux Elementary School Behavior Rating Scale

The DESB scale, according to the manual,

> Provides a profile of 11 dimensions of overt problem behavior that experienced teachers have judged as being related to classroom achievement, and for which there is research evidence to this effect. (Spivack & Swift, 1967, p. 3).

The scale includes 47 different items, 44 of which are grouped into the 11 factors. Three additional items that do not contribute to a factor score complete the scale. Each factor consists of between three and five items. No item occurs in more than one factor. These factors are labelled: classroom

disturbance, impatience, disrespect-defiance, external blame, achievement anxiety, external reliance, comprehension, inattentive-withdrawn, irrelevant-responsiveness, creative initiative, and need for closeness to the teacher. The items are rated on either a 5-point scale which measures the frequency of a behavior, or on a 7-point scale measuring the degree of the behavior.

In reviewing the DESB for the Seventh Mental Measurement Yearbook (Buros, 1972), Littell states:

> A major strength of the DESB is the care with which the items were selected and grouped into the rating scale . . . Teachers of both normal and exceptional children were brought together to discuss and describe behaviors of the children in their classrooms that they saw as either disruptive of learning or as positively related to achievement . . . This item pool was used to rate both normal and exceptional children, the data were factor analyzed, and the items best describing the factors which were common to both normal and exceptional children were retained in the final form. (pp. 68-69)

Behavior Factors

The following are descriptions of the 11 factors and the 3 non-factor additional items. The quotations in these descriptions indicate direct quotations from the DESB manual. The complete DESB rating scale and the DESB profile form (see Appendix) provide the completely stated items, and the values for the factor scores in the form of a raw score-to-standard score conversion table.

Factor 1. Classroom disturbance

Four items, no. 11, 12, 13, and 30:

> . . . tapping classroom disturbance behaviors measure the extent to which the child's behavior is active, social (although inappropriate), and disruptive or obstreperous. These behaviors usually disrupt the classroom functioning of others and interrupt the flow of work. . . . The normal range of scores is between 6 and 14.

Factor 2. Impatience

> Three items, no. 1, 36, and 47:
>
> . . . are concerned with an inappropriate drive to enter into and to complete the work assigned. A score of 15 or more suggests difficulties which are not conducive to successful learning. . . . The range of scores for most normal public school children is between 5 and 14.

Factor 3. Disrepect-defiance

> Four items, no. 5, 7, 9, and 16:
>
> tap the extent to which the child manifests open disrespect for or resistance to the school, the subject matter being taught and the teacher. . . . A score of 9 or more is strong evidence of a serious disruption of the relationship between the child and the total academic setting.

Factor 4. External blame

> Four items, no. 2, 25, 34, and 38:
>
> This factor measures the extent to which the child expresses the feeling that it is the external circumstances which are the sources of his difficulties. . . . A score of 11 or more exceeds 84% of normal class public school children studied to date.

Factor 5. Achievement anxiety

> Four items, no. 22, 23, 31, and 33:
>
> The essential element in this factor is the outward display of disturbance (worry and upset) concerning the inability to meet the achievement demands of the teacher and/or school situation. . . . A score of 13 or more

exceeds 84% of normal class public school children studied to date.

Factor 6. External reliance

Five items, no. 24, 29, 32, 42, and 46:

this factor taps the degree of the child's inability to make independent decisions, to hold opinions, and to make independent action without the support and direction of others. . . . The normal range of scores is between 8 and 19.

Factor 7. Comprehension

Three items, no. 10, 35, and 37:

The three items in this factor are scored in the direction opposite to the previous factors. In this instance, a low factor score is related to poor achievement. A youngster receiving a score of 9 or less (lower than 84% of the normal scores) is having a problem in comprehending the day-to-day work demanded by the curriculum and teacher. . . . The normal score range is between 10 and 16, 97% of good achievers having been shown to obtain scores above 9.

Factor 8. Inattentive-withdrawn

Four items, no. 18, 20, 28, and 43:

The major issue tapped by this factor is the tendency to lose contact with what is going on in class. . . . A score of 15 or more exceeds 84% of scores obtained to date on normal public school children.

Factor 9. Irrelevant-responsiveness

Four items, no. 14, 15, 17, and 26:

This factor taps the extent to which the child's verbal responses in class are irrelevant, intrusive, and/or exaggerated or untruthful. . . . Scores of 11 or more on this factor exceeds 84% of scores obtained on public school children studied to date.

Factor 10. Creative initiative

Four items, no. 3, 4, 6, and 21:

> Measuring the degree to which the child exhibits active personal involvement in, and positive motivation to contribute to, the classroom learning situation. . . . Factor scores of 7 or less generally indicate a limitation in the child's involvement in and thinking about the activities of the class.

Factor 11. Need for closeness to the teacher

Four items, no. 8, 19, 39, and 45:

> This factor taps the extent to which children like to be close to, seek out, and offer to do things for the teacher. . . . Most public school children obtain scores between 10 and 19 of this factor.

Non-factor additional items

The non-factor items are items 27, 40, and 41:

> Each of the items is related negatively to successful achievement, indicating that children receiving high scores are displaying behavior deterimental to academic success.

It is not specified in the manual why the scale developers did not consider these three items as a factor, since they all seem to measure aspects of accomplishment in school tasks.

Test-retest correlations of the factor scores provide reliability coefficients ranging from .85 to .91. Reliabilities for the three additional items range from .71 to .80. Their low reliability, relative to those for the factor scores, may explain why the scale developers did not use them to constitute a factor.

Reliability

Spivack and Swift (1968) report that test-retest ratings over a 1 week period yielded correlation coefficients for the 11 factors ranging from .85 to .91. The median reliability was .87. In a later review, Spivack and Swift (1973) report rater reliabilities ranging from .62 to .77 with a median reliability coefficient of .70. The rater reliability data were based on a sample of 40 children in one classroom rated by a teacher and a teacher aide. They conclude that the reliabilities for the factors are "quite satisfactory."

Studies other than those by Spivack and Swift have explored various aspects of the reliability of the DESB. Schaeffer, Baker, and Zawel (1975) determined the inter-rater and test-retest reliabilities of the DESB and judged them to be satisfactory.

Wallbrown, Wallbrown, Engin, and Blaha (1976) studied the stability of DESB factor scores over a 1 year period. While this is too long a period for a reasonable determination of test-retest reliability, high correlations over this span of time could only occur if the factor scores are reliable. They found the median correlations for the factor scores to be .73 with a range from .82 to .49. Most of these correlations are substantial, offering some support for the reliability of the DESB scores.

Validity

Spivack and Swift (1973) in their review of teacher-administered rating scales present evidence for the predictive, or concurrent, validity of the DESB factor scores. They state:

> . . . each of the 11 factors has been shown to correlate significantly with teacher grades, after the influence of measured IQ has been partialled out statistically, in both normal American and French children and among groups of emotionally handicapped children. . . . In the above noted studies all factors were found to differentiate between normal and special-class children, and five of the factors differentiated significantly between subtypes of emotionally handicapped children when grouped by standard APA diagnostic nomenclature. . . . Swift and Spivack (1968), in reporting their normative data on a new sample of 809 public school children, report that factor scores correlated not only with age at entering first grade and sex of child, but also with parental age and educational level, family size, birth order, and race. (p. 78)

Factor analysis of the DESB may also be considereed as a method of evaluating the construct validity of the DESB factor scores. Spivack and Swift (1973) review factor analysis of the DESB which they carried out:

> Two initial factor analyses of behavior ratings . . . one on data from normal and the other on data from special classes for emotionally handicapped, were completed on 579 children. The same factors emerged in the normal and special elementary class settings. A subsequent factor analysis of data on 1325 normal French school children essentially replicated these factor findings. (p. 77)

Other investigators using factor analytic methods have thrown some doubt on the independence of the DESB factor scales. Schaefer, Baker, and Zawel (1975) conducted a factor analysis of the 11 DESB factors and found 3 of what they labeled "broad-band factors." They identified these as

"classroom management problems, self-reliant learner, and seeks teacher's approval" (sic). They also speak of clusters within these broad-band factors, so that the discrepancy of their findings with those of Spivack et al. are not, perhaps, as contradictory as first appears.

Von Isser, Quay, and Love (1980) also factor analyzed the DESB factor scores. They also discovered three major factors which they concluded, "calls into question the independence of many of the Devereux scales" (p. 275). It is not possible to compare these factors with factors derived from the original Spivack and Swift analyses since their data are contained in an unpublished report (Spivack & Swift, 1967b).

In contrast to these findings, Wallbrown, Wallbrown, Engin, and Blaha (1976), in their factor analysis of the DESB, found some support for the original Spivack and Swift results. In an investigation of what they called the construct validity of the DESB they used 408 kindergarten children. They regarded their results as generally supportive since they identified 9 of the 11 factors which Spivack and Swift had originally reported.

In addition to these data from the creators of the DESB, and the factor analytic studies, some of the studies described in the section below may be considered as relating to the validity of the scale.

Other Studies Utilizing the DESB

DESB as a Criterion for Validating Other Measures

The fact that researchers have had faith in the validity of the DESB is apparent in its use as the criterion variable to validate other instruments or procedures. Growe and Levinson (1980) and Willis and Seymour (1978) used the factor scores to validate the Children's Personality Questionnaire (CPQ). Saklofske (1977) used two scales of the DESB--disrespect-defiance and classroom disturbance--as criterion measures to evaluate the Junior Eysenck Personality Inventory. Powers (1977) used the DESB as a criterion measure to validate the Vane Kindergarten Test (VKT).

DESB as a Dependent Measure in Studies of Group Differences

Several studies were found in which the DESB factors were used as dependent measures in studies of group differences. These studies are not of direct concern to the goals of the present study since they are not useful in shedding light on the comparability of the U.S. and Jordanian applications of the DESB. However, they are cited briefly here for the evidence they present as to the recognition the DESB has received and as illustrative of the ways in which it can be used.

Elardo and Caldwell (1979) used the DESB to evaluate behavioral change in an experimental group of 9 and 10 year

olds following their participation in a social development program. Culbertson and Craig (1978) varied the amount of relaxation training to which 5th graders were exposed and used the DESB, among other measures, to evaluate the effects on classroom behavior. The DESB was used by Mosby (1979) to measure the behavioral effects of what Mosby termed "developmental bypass (DBP) teaching techniques" in a mainstream instructional program for "learning disabled" junior high students.

Morrow (1979) predicted that there would be differences in the classroom behavior of black children of low socioeconomic status according to the age of the mother at the time of the child's birth. The DESB was used as a dependent measure.

Studies Immediately Relevant to the Present Study

To evaluate the comparability of DESB results in the U.S. and Jordan requires replicating, or approximating, in Jordan studies previously done in the U.S. The following U.S. studies are reviewed because they provide data that most closely approximate the data gathered for this study in Jordan.

The DESB normative study

Swift and Spivack (1968) report norms developed on a population of 809 elementary school children. They state that the children were drawn from "all of the elementary

schools in a small Eastern city system" (p. 139). They explain this choice as motivated by their desire to "obtain as wide as possible a range in family background and IQ" (p. 139).

They sampled each grade level from kindergarten through 6th grade with N's for each grade level ranging from 101 to 122. They provide the following description of the sample:

> Their mothers and fathers had an average of 12.7 and 13.1 years of education respectively, with standard deviations of 2.0 and 2.9. Thus, the children came from homes in which approximately one-half of the parents had not gone beyond high school but approximately 16% of the fathers had completed college. Of the 809 children rated, 721 were white and 88 Negro. (p. 139)

The children were rated by 32 teachers in 13 elementary schools. Each teacher rated all children in his/her class. Four of the teachers were males "who taught the fifth or sixth grade." They report that the sex of the rater made no difference on 9 of the 11 factors although they reached this conclusion without having male and female raters rating the same group of children. On the two factors on which they differed, male raters tended to see children as more inattentive-withdrawn (Factor 8) and as less needing closeness to the teacher (Factor 11) than female raters.

The norms for the U.S. sample are not presented here since they are presented in full in chapter 3 along with the data from Jordan. Several findings regarding the relationship of independent variables to factor scores are presented here because they will have relevance to the interpretation of the findings of this study.

First, Swift and Spivack report that boys were consistently "rated as presenting more problems than girls . . . all differences were highly significant" (p. 144).

Second, they conclude from their data on variation in factor scores according to the number of siblings in the family ". . . that children from very large families demonstrate greater school problems than their peers from smaller families" (p. 147). They report that the data are particularly convincing when children from families with four or more children are compared with those from smaller families.

Finally, they report that ". . . the higher the parents' level of education, the lower the likelihood of behavioral difficulties in the child" (p. 145). This finding was particularly apparent at the fifth and sixth grade levels. However, the correlations which they report, while significant, are not large. The significant correlations of parental education and factor scores for the sixth grade level range from .51 to .20 with a median r of .32.

Relationship of factor scores to academic achievement

The DESB was designed to measure behaviors that would be correlated with academic achievement. It has already been noted that Spivack and Swift (1973) in reviewing their early studies report that factor scores are significantly related to academic achievement. They report a complete table of correlations of factor scores with reading and arithmetic

scores in their 1968 report. These results will be presented along with comparison data for Jordan in chapter 3.

In a later study Swift and Spivack (1969) compared achievers and underachievers on DESB factor scores. They used the Iowa Test of Basic Skills and report card grades to measure academic achievement. The data are not in a form to be useful for comparison with data from the present study. They conclude from their study that "The underachieving child is manifesting underachievement in a variety of ways which suggest a general lack of adaptation to the demands of the classroom environment as presently designed" (p. 104). In confirmation of their earlier studies, underachievers and achievers differed in their DESB factor scores, in the predicted directions.

Engin (1975) used the DESB as a predictor of the classroom achievement of third and fourth graders in an inner-city parochial school. The factor scores were used in a multiple regression procedure in which their contributions to the prediction of Stanford Achievement test scores were determined. All factors contributed significantly to one or more of the Stanford Achievement Test subtests. Engin concludes, ". . . behavioral variables as measured by Devereux factors and non-factor items played a significant role in explaining criterion variance in all equations" (p. 74).

She discovered several factor score results that are divergent from the previous findings of Spivack and Swift.

Two of the factors, disrespect-defiance (Factor 3) and irrelevant responsiveness (Factor 9) related positively, rather than negatively, to two of the achievement criteria. She offers as a possible explanation the fact that this is a sample of inner-city children.

> The finding that two "acting out" behaviors serve as predictors for two achievement areas as measured by the Stanford leads one to wonder whether these behaviors may not have an enhancing rather than a deletrious effect upon some aspects of classroom achievement for inner-city children. (p. 75)

Purpose of the Study

This research was undertaken to determine whether an Arabic translation of the DESB when used in Jordan will have characteristics, as a measuring instrument, comparable to those characteristics of the U.S. version of the scale. It is assumed, on the basis of the literature reviewed above, that, in the U.S., the DESB has proven to be a useful scale for measuring elementary school behavior. To be considered similarly useful in Jordan it must be demonstrated that the DESB is, after translation and after administration in a different culture, measuring roughly the same variables.

To determine the comparability of the U.S. and Jordanian versions of the DESB it was decided to compare as many results of the application of the DESB in the U.S. and Jordan as were feasible given the resources of the writer. It was felt that if it was determined that a variety of U.S. findings using

the DESB could be replicated in Jordan, it could be assumed that the Arabic translation was measuring the same variables as the U.S. version.

It was recognized at the outset that if the DESB did not seem to produce comparable findings in the two cultures, interpretation would be more difficult. In the event of such negative results two major explanations would be plausible: (1) the translated scale and the related administration procedures in Jordan have somehow altered what the scale measures; or (2) children's traits, teacher perceptions, the relationship of behavior to academic achievement, etc., actually differ in the U.S. and Jordanian cultures.

CHAPTER 2

METHODOLOGY

Research Questions

The following research questions were developed to achieve the stated purposes of this study:

1. How do the mean scores on the 11 DESB factors for the Jordan sample compare to those for the U.S. standardization sample?

   In answering this question the data will be looked at factor by factor and grade level by grade level.

2. Is the pattern of intercorrelations of factor scores comparable for the Jordan and U.S. samples?

   One way of evaluating the comparability of the results of the use of the DESB in two cultures would be to compare the hypothetical factors derivable from the intercorrelations of the subscales through the use of factor analysis. This was not possible, however, since a factor analysis for the U.S. standardization data, although mentioned, is not reported. Thus, the intercorrelation matrices for the Jordan and U.S. samples are compared directly and their comparability evaluated only by informal methods.

3. How do sex differences in factor means compare for the U.S. and Jordan samples?
4. How do the relationships between reading and arithmetic achievement scores and the factor scores compare for the Jordan and U.S. samples?

   Since the creators of the DESB consider this scale to be a measure of those behavioral traits that interfere with academic learning, the ability of the DESB to relate significantly to school achievement is a major way to demonstrate its validity. Thus, determining its ability to predict school achievement in Jordan is a crucial test of this Arabic version of the scale.
5. How do the scores of Jordanian children, selected by teachers as disturbed, compare to the U.S. and Jordan norms?

   If the DESB scale is performing in Jordan as a valid measure of behavior disturbing in a classroom it would be expected that the scores of children singled out as disturbing by teachers should be outside the range of normal established on the DESB profile. The significant comparison made in this study is between these scores of disturbing children and a profile developed from the Jordan DESB factor means and standard deviations.

6. What are the differences in factor scores between Palestinian and Jordanian children?

   It is the writer's belief that the Palestinian children tend to show more disturbing behavior in the classroom than Jordanian children, although she is not aware of studies relevant to this comparison. If this belief is correct, and if the DESB scale differentiates the two groups, this difference would be one kind of validation of the instrument.

Prior to the collection of the research data it was intended that two other variables would be measured and comparisons made between the Jordan and the U.S. findings. These variables were: (1) the number of siblings, and (2) sibling birth order. It was discovered, however, that because of the large number of siblings, most cases fell in a "more than four siblings" coding category, and that, consequently, very few were "youngest" or "oldest." Because of this very uneven distribution of cases in the coding categories no attempt was made to evaluate these data.

Arabic Adaptation of the DESB

The DESB was translated into Arabic by the investigator. This Arabic version was submitted for evaluation to an Arabic speaking person, fluent in the English language and currently living in the U.S. It was also submitted to a professor in the psychology department of the University of Jordan. The intent was to discover elements of the instructions or item

statements which might have been confusing to the Jordanian teachers who would be the respondents.

Finally, the investigator asked some teachers in Jordan to examine the Arabic adaptation, before the final version was prepared, in order to be sure that every item was understandable and clear.

After these checks and the subsequent revisions had been made the writer was convinced that the language of the Arabic version represented an accurate translation, and that there would be no differences between the U.S. and Jordan groups that could be reasonably attributed to faulty translation.

Selection of the Sample

The subjects for the study were selected from a sample of elementary regular public schools representative of Amman, the capital of Jordan. In addition, two regular elementary schools, one for females and one for males supported by the United Nations in the biggest Palestinian camp (Al-Wehdat) in Amman were involved. The ages of the children in the sample corresponded to the ages of the children in the U.S. standardization sample.

The Jordan Public School Sample

Seventeen schools were involved in the study, nine schools for males and eight schools for females. One class from each grade level, first through sixth, from each school was randomly selected, so that the sample included six

classes from each school. An exception to this procedure was the omission of one fourth grade from one male school because of the teacher's absence. Thus, 53 classes of male students and 48 classes of female students were involved.

From each class six children were selected as subjects: three Palestinians and three Jordanians. The investigator categorized the children as being Palestinian or Jordanian based on the child's family name. She was convinced that the differences in family names are generally so clear-cut and consistent that there would be no misclassification using this procedure, particularly since only those children were selected whose family names seemed unambiguous as indicators of nationality.

It should be noted that this classification guarantees only that the father belonged to the group indicated. That is, a child designated Palestinian may well have had a Jordanian mother. While such mixed homes are probably a small percentage of the sample, the child's categorization as Palestinian or Jordanian was regarded as valid in these mixed cases on the assumption that in the patriarchal mid-eastern family the father sets the pattern of home life and would be the dominant force in determining the characteristics of the child's environment.

The first three Palestinians and the first three Jordanians in the roll book were selected. The teachers were not aware of this ethnic identification of the children and,

therefore, this identification could not bias their ratings, although their ratings might still have been influenced by their previously existing awareness of Palestinian-Jordanian differences. The classroom teachers were asked to prepare a DESB scale for each of the six children.

The United Nations (Palestinian) School Sample

From the Palestinian schools in the biggest Palestinian camp in Amman six classes of males and six classes of females, one class from each grade level, were randomly selected. From each of these classes six children were chosen at random.

The resulting number of cases selected using these procedures is presented in Table 1, distributed by grade level, school location, nationality, and sex. The total number of cases should have been 608. However, three cases were lost through procedural errors, three were not rated by teachers, and one extra was contributed by a third grade teacher, making a final sample of 603, with approximately 100 cases at each grade level.

The Sample of Disturbed Children

In addition to the 603 cases, 12 cases of disturbed children were evaluated. These cases were selected because their teachers identified them, at the writer's request, as engaging in disturbing behavior in their classrooms. In

Table 1.--Distribution of subjects by grade level, school location, nationality, and sex.

Grade Level	Total N	Elementary Regular Public Schools				UN Schools	
		Jordanian		Palestinian		Palestinian	
		Females	Males	Females	Males	Females	Males
1st	102	21	24	21	24	6	6
2nd	102	21	24	21	24	6	6
3rd	102	21	24	20	25	6	6
4th	96	21	21	21	21	6	6
5th	101	21	23	21	24	6	6
6th	100	19	24	21	24	6	6
TOTAL	603	124	140	125	142	36	36

this group were eight Palestinian children and four Jordanian children; four females and eight males.

In discussing the testing with the teachers, 12 teachers, at their own suggestion, volunteered that they had a child who had problems and whom they would wish to rate. They must have formed their definition of a disturbed child by listening to the writer's description of the DESB.

The distribution of this group of disturbing children, according to grade level, nationality, and sex is presented in Table 2.

Table 2.--Number of cases of disturbed children by grade level, sex, and nationality.

Grade Level	N	Palestinian		Jordanian	
		Females	Males	Females	Males
1st		---	---	---	---
2nd	2	---	1	---	1
3rd	1	1	---	---	---
4th	4	2	1	1	---
5th	3	---	2	---	1
6th	2	1	---	---	1
Total	12	4	4	1	3

Procedures

Instruction of the Raters

Prior to making ratings, the teachers met with the investigator in groups, school by school, the purpose of these meetings being to discuss the scale, review the items, and answer any questions raised by the teachers.

Each teacher was asked to complete the ratings within a 10-day period. In their ratings they were asked to consider the recent and the current behaviors of the child, to use the behavior of the "average" child as the norm, to consider each item in the scale independently, and to avoid interpretations of the child's motives or feelings. These instructions represented an attempt to follow as closely as possible the instructions described in the DESB manual. The instructions for use of the DESB rating scale are spelled out in detail in the rating guide on the first page of the DESB Rating Scale form (see Appendix).

Determination of Rater Agreement

It was decided that within the limits of this study a measure of rater agreement would be the most useful measure relevant to the "reliability" of this scale. An ideal measure of rater agreement would have required that the children be rated independently by two nonparticipant observers rating the same instances of behavior. While this ideal could not be attained, a rater agreement design

was developed that provides some basis for evaluating the stability of the measure.

A group of 66 children was selected to be reasonably representative of the total group. The distribution of subjects selected is presented in Table 3 according to nationality, grade level, and sex.

Table 3.--Distribution of cases in the rater agreement sample.

	Fourth Grade		Sixth Grade	
	Males	Females	Males	Females
Palestinian	9	9	9	9
Jordanian	9	6	9	6
Total	18	15	18	15

These 66 children were each rated by three different teachers: their "home room" teachers and two other teachers in whose classes they studied, and who volunteered to do the ratings.

The obvious weakness of this design is that a child's behavior may change from one teacher, and one subject matter, to another, so that teacher disagreement in their ratings would not necessarily indicate instability of the scale. Thus, a negative result would be difficult to interpret. On the other hand if high agreement is found it could be

concluded that behavior is stable from setting to setting and the DESB scale reliably measures this stability. Since it was felt by the writer that the behaviors measured by the scale are fairly consistent from setting to setting it was decided to attempt to measure rater agreement in this manner.

The rater agreement results were gathered as part of the study and are therefore discussed along with other findings in chapter 3. For the convenience of the reader the method of determining agreement in the ratings of the three-teacher rating groups will be presented along with the results.

Measures of Achievement

The measures of reading and arithmetic achievement were grades assigned by the teacher for the first semester of the school year, the semester immediately prior to the data collection. The teachers were sometimes the same teachers who did the DESB ratings, and sometimes not.

The achievement scores were in percentage form, 100% equaling perfect performance. The percentage values were used in data computations.

Treatment of the Data

Means and standard deviations were obtained for each factor and additional item across all six grades and within each grade for both males and females, Jordanian and Palestinian.

Strategies for answering each research question varied according to the characteristics of the data involved. The methodologies used are discussed in chapter 3 as the findings for each research question are presented.

CHAPTER 3

FINDINGS

The findings relating to each of the research questions will be presented in turn. However, before this is done the findings on rater agreement will be considered.

Rater Agreement

The determination of rater agreement was based on ratings of each child by three teachers, as described in chapter 2. Since the teachers doing the ratings were not the same for all children, the usual method of determining rater agreement by comparing pairs of raters each of whom had rated all subjects was not applicable. Therefore, it was necessary to develop methods suitable for this situation in which the set of three raters varied from child to child.

The first 26 items of the DESB scale are rated on a 5-point scale; items 27 through 47 on a 7-point scale. As a first approach it was decided that a maximum discrepancy for the raters of one step on the scale or less would represent "agreement" for items 1 through 26, and a maximum discrepancy of two steps or less would represent "agreement" on items 27 through 47. Thus, the discrepancy value (D value) for one child for an item equals the highest assigned rating

value minus the lowest assigned rating value. For example, if ratings on item number 1 for a child were 5, 4, and 3, the D value would be 2: that is, 5 minus 3.

First items are compared according to the level of agreement among the raters. These data are presented in Tables 4 and 5, for the fourth and sixth grades, respectively. Here the question under consideration is: Is there greater rater agreement on some items than on others? These tables are to be interpreted as follows: In Table 4, for the 18 males who were rated for item number 1 there was agreement among the three raters on 61.1% of the cases (11 out of 18). For the fourth grade males on the first 26 items agreement varied from a high of 88.9% of the cases to a low of 55.6%.

Tables 6 and 7 have been prepared to condense these findings into a more readily interpretable form. These tables show the distribution of the items according to the percentage of subjects for whom there was rater agreement (D = 0 or 1, for items 1 through 26; D = 0, 1, or 2, for items 27 through 47). For example, in Table 6 the number 11 in the fourth grade, male column indicates that on 11 items there was rater agreement, as defined, for between 70-79% of the 18 male fourth graders.

It may be concluded by inspecting the columns in Tables 6 and 7 that there is a tendency for raters to agree more readily on male subjects as compared to females, and on fourth graders as compared to sixth graders.

Table 4.--Rater agreement by item for the fourth grade.

Item Number	Males (N = 18)			Females (N = 15)		
	Agree* N	Disagree N	Agree %	Agree N	Disagree N	Agree %
1	11	7	61.1	11	4	73.3
2	12	6	66.7	10	5	66.7
3	13	5	72.2	12	3	80.0
4	12	6	66.7	8	7	53.3
5	16	2	88.9	14	1	93.1
6	16	2	88.9	13	2	86.7
7	14	4	77.8	8	7	53.3
8	12	6	66.7	8	7	53.3
9	11	7	61.1	13	2	86.7
10	16	2	88.9	12	3	80.0
11	15	3	83.3	10	5	66.7
12	15	3	83.3	10	5	66.7
13	15	3	83.3	9	6	60.0
14	11	7	61.1	11	4	73.3
15	16	2	88.9	9	6	60.0
16	14	4	77.8	10	5	66.7
17	11	7	61.1	13	2	86.7
18	13	5	72.2	9	6	60.0
19	13	5	72.2	9	6	60.0
20	14	4	77.8	8	7	53.3
21	10	8	55.6	9	6	60.0
22	14	4	77.8	10	5	66.7
23	13	5	72.2	6	9	40.0
24	14	4	77.8	9	6	60.0
25	13	5	72.2	11	4	73.3
26	14	4	77.8	8	7	53.3
27	16	2	88.9	13	2	86.7
28	16	2	88.9	11	4	73.3

Table 4.--Continued.

Item Number	Males (N = 18)			Females (N = 15)		
	Agree N	Disagree N	Agree %	Agree N	Disagree N	Agree %
29	15	3	83.3	7	8	46.7
30	17	1	94.4	7	8	46.7
31	14	4	77.8	9	6	60.0
32	15	3	83.3	10	5	66.7
33	14	4	77.8	8	7	53.3
34	11	7	61.1	15	--	100.0
35	17	1	94.4	11	4	73.3
36	15	3	83.3	11	4	73.3
37	17	1	94.4	13	2	86.7
38	17	1	94.4	13	2	86.7
39	17	1	94.4	14	1	93.3
40	13	5	72.2	10	5	66.7
41	15	3	83.3	11	4	73.3
42	14	4	77.8	13	2	86.7
43	15	3	83.3	10	5	66.7
44	14	4	77.8	13	2	86.7
45	11	7	61.1	8	7	53.3
46	14	4	77.8	8	7	53.3
47	15	3	83.3	8	7	53.3

*Agreement for items 1-26 represents a D value of 0 or 1; for items 27-47 a D value of 0, 1, or 2. Disagreement represents greater rater discrepancies than these.

Table 5.--Rater agreement by item for the sixth grade.

Item Number	Males (N = 18)			Females (N = 15)		
	Agree N	Disagree N	Agree %	Agree N	Disagree N	Agree %
1	13	5	72.2	10	5	66.7
2	12	6	66.7	7	8	46.7
3	15	3	83.3	8	7	53.3
4	15	3	83.3	9	6	60.0
5	14	4	77.8	14	1	93.3
6	14	4	77.8	11	4	73.3
7	10	8	55.6	11	4	73.3
8	15	3	83.3	10	5	66.7
9	10	8	55.6	10	5	66.7
10	12	6	66.7	13	2	86.7
11	13	5	72.2	8	7	53.3
12	13	5	72.2	7	8	46.7
13	12	6	66.7	7	8	46.7
14	12	6	66.7	8	7	53.3
15	8	10	44.4	10	5	66.7
16	12	6	66.7	8	7	53.3
17	11	7	61.1	9	6	60.0
18	12	6	66.7	9	6	60.0
19	12	6	66.7	12	3	80.0
20	11	7	61.1	7	8	46.7
21	13	5	72.2	9	6	60.0
22	8	10	44.4	10	5	66.7
23	10	8	55.6	10	5	66.7
24	11	7	61.1	10	5	66.7
25	13	5	72.2	9	6	60.0
26	11	7	61.1	8	7	53.3
27	11	7	61.1	10	5	66.7
28	13	5	72.2	9	6	60.0

Table 5.--Continued.

Item Number	Males (N = 18)			Females (N = 15)		
	Agree N	Disagree N	Agree %	Agree N	Disagree N	Agree %
29	12	6	66.7	10	5	60.7
30	11	7	61.1	11	4	73.3
31	12	6	66.7	12	3	80.0
32	13	5	72.2	11	4	73.3
33	10	8	55.6	13	2	86.7
34	11	7	61.1	10	5	66.7
35	13	5	72.2	11	4	73.3
36	11	7	61.1	11	4	73.3
37	13	5	72.2	9	6	60.0
38	10	8	55.6	12	3	80.0
39	15	3	83.3	12	3	80.0
40	11	7	61.1	10	5	66.7
41	15	3	83.3	10	5	66.7
42	10	8	55.6	10	5	66.7
43	14	4	77.8	10	5	66.7
44	11	7	61.1	7	8	46.7
45	12	6	66.7	12	3	80.0
46	11	7	61.1	11	4	73.3
47	12	6	66.7	10	5	66.7

*Agreement for items 1-26 represents a D value of 0 or 1; for items 27-47 a D value of 0, 1, or 2. Disagreement represents greater rater discrepancies than these.

Table 6.--Distribution of items 1-26 according to percent of rater agreement for the grade and sex subgroups.

Percent of Subjects On Whom There Is Rater Agreement	4th Grade		6th Grade	
	M	F	M	F
90 - 99	--	1	--	1
80 - 89	7	5	3	2
70 - 79	11	3	7	2
60 - 69	7	11	11	12
50 - 59	1	5	3	5
40 - 49	--	1	2	4
Total Items	26	26	26	26

Table 7.--Distribution of items 27-47 according to percent of rater agreement for the grade and sex subgroups.

Percent of Subjects On Whom There Is Rater Agreement	4th Grade		6th Grade	
	M	F	M	F
90 - 99	5	2	--	--
80 - 89	7	5	2	5
70 - 79	6	4	5	5
60 - 69	2	3	11	10
50 - 59	--	4	3	--
40 - 49	--	2	--	1
Total Items	20	20	21	21

Given the fact that the raters observed the children in different settings the level of rater agreement is considered to be encouraging. In addition, inspection of the raw data revealed that there were very few occasions in which the raters were in disagreement to the extent that one rating indicated the definite presence of the behavior whereas another rating indicated definite absence of the behavior.

A second approach was to compare the subjects according to the level of agreement among the raters. Here the question under consideration is: Is it easier for raters to agree on some subjects than on others? In Table 8 are presented the data to answer this question. For each subject is shown the percentage of items on which the three raters reached agreement (D = 0 or 1 for the first 26 items; D = 0, 1, or 2 for the remainder).

It is apparent from this table that it was much harder for the raters to agree on some subjects than on others: the range is from 44.7% to 100% of the items agreed upon. On the basis of the mean values, it can be concluded that there is a tendency for the fourth grade males to be easiest to agree upon, and a slight tendency for the fourth graders to be more highly agreed upon than sixth graders.

The mean percentage of agreement for the four sex grade subgroups varies from a mean of 66.7% for sixth grade males to 79.5% for fourth grade males.

Table 8.--Percent of items on which there is rater agreement by subjects.

4th Grade						6th Grade					
Male			Female			Male			Female		
No.	Nat.[a]	% Agree	No.	Nat.	% Agree	No.	Nat.	% Agree	No.	Nat.	% Agree
1	P	72.3	19	P	72.3	34	P	61.7	52	P	87.2
2	P	97.9	20	P	80.9	35	P	57.4	53	P	85.1
3	P	93.6	21	P	91.5	36	P	61.7	54	P	80.9
4	P	66.0	22	P	57.4	37	P	74.5	55	P	61.7
5	P	80.9	23	P	49.0	38	P	61.7	56	P	47.0
6	P	100.0	24	P	87.2	39	P	76.6	57	P	59.6
7	P	68.1	25	P	76.6	40	P	49.0	58	P	51.1
8	P	80.9	26	P	72.3	41	P	91.5	59	P	91.5
9	P	72.3	27	P	61.7	42	P	76.7	60	P	47.0
10	J	57.4	28	J	85.1	43	J	57.4	61	J	70.2
11	J	85.1	29	J	68.1	44	J	70.2	62	J	72.3
12	J	78.7	30	J	47.0	45	J	61.7	63	J	53.2
13	J	93.6	31	J	61.7	46	J	72.3	64	J	70.2
14	J	78.7	32	J	47.0	47	J	78.7	65	J	72.3
15	J	70.2	33	J	68.1	48	J	68.1	66	J	57.4
16	J	74.5				49	J	66.0			
17	J	83.0				50	J	44.7			
18	J	78.7				51	J	70.2			
		79.5[b]			68.9			66.7			67.1

[a]Nat. refers to Palestenian (P) and Jordanian (J) nationality.

[b]Figures in the bottom row are means for the columns.

A second method of evaluating rater agreement involving the intercorrelations among raters was used. As described in chapter 2, groups of six children were rated by three raters. There were 11 such groups of raters in 11 schools, for a total of 66 children and 33 raters.

Pearson product-moment correlations of the DESB factor scores generated from the item ratings of the 6 children by the three raters in each group were determined. These correlation coefficients are presented in Table 9. Median correlations for the DESB factors range from .50 to .88.

Under the conditions of this study this level of rater agreement is considered as encouraging for the future development of the scale in Jordan. There is a good probability that there is poor rater agreement in some cases not because of the unreliability of the rating scale, but because a child may have shown different behavior in the three different settings in which he was evaluated.

Question 1. How do the mean scores for the Jordan sample compare to those for the U.S. standardization sample?

Means and standard deviations for the DESB factor scores and the three additional items at each grade level for the Jordan sample are presented in Table 10. Comparable data for the U.S. standardization sample are presented in Table 11. It should be noted that the three additional

Table 9.--Correlations of factors scores derived from three-rater groups.

Group	F1			F2			F3			F4			F5			F6			F7			F8			F9			F10			F11		
	A,B	A,C	B,C	A,B	A,C	B,C	A,B	A,C	B,C	A,B	A,C	A,B	A,B	A,C	B,C	A,B	A,C	B,C	A,B	A,C	B,C	A,B	A,C	B,C	A,B	A,C	B,C	A,B	A,C	B,C	A,B	A,C	B,C
Group 1	.81	.98	.76	.70	.80	.64	.90	.92	.99	.54	.29	.60	.69	.23	-.27	.83	.87	.69	.93	.90	.85	.50	.58	.94	.87	.76	.53	.85	.99	.92	-.22	.43	.10
Group 2	.53	.64	.93	.46	.24	.02	.63	.02	.64	-.30	.24	-.10	.62	.71	.55	.59	.55	.76	.92	.93	.96	.68	.79	.80	.94	.76	.61	.93	.93	.96	.47	.50	.95
Group 3	.66	.79	.73	.78	.90	.82	.29	.68	.34	.91	.86	.95	.92	.47	.71	.99	.76	.76	.97	.80	.77	.96	.73	.67	.79	.04	.14	.99	.92	.88	.99	.89	.85
Group 4	.88	.92	.75	.89	.88	.67	.63	.61	.68	.98	.64	.68	.37	-.11	.40	.79	.66	.76	.88	.77	.91	.92	.90	.74	.85	.76	.67	.86	.53	.32	.17	.25	.10
Group 5	.53	.10	.60	.74	.49	.90	--	-.11	.97	.49	-.55	.24	.80	.98	.78	.32	.13	.22	.93	.79	.88	.49	.10	.68	.33	.32	.95	.71	.59	.99	.69	.81	.49
Group 6	.59	.69	.29	.97	.80	.85	.89	.68	.34	.67	.76	.35	-.38	.25	-.79	.86	.65	.84	.99	.82	.88	.82	.62	.66	.47	-.01	-.41	.76	.77	.91	.68	.64	.33
Group 7	.47	.62	.95	.42	.61	.96	.65	.80	.94	.90	.79	.58	.02	.61	.79	.64	.69	.98	.86	.88	.96	.69	.68	.98	.37	.53	.96	.70	.75	.95	.88	.71	.81
Group 8	.76	.38	.34	.46	-.14	.35	.77	.68	.89	.32	.66	.10	.62	.79	.54	-.10	-.21	.36	.84	.91	.87	-.02	.39	.85	.92	-.06	.04	.88	.86	.92	.80	.92	.51
Group 9	.88	.95	.77	.75	.66	.97	.80	.74	.68	.64	.45	.62	-.31	.84	-.83	.20	.61	.71	.52	.83	.43	.04	.47	.69	.69	.64	.71	.16	.82	.30	.12	.50	.34
Group 10	.65	.90	.51	.42	.87	.32	.21	.95	.10	-.25	.91	-.37	.16	-.74	-.40	-.10	.97	.13	.89	.96	.83	.81	.94	.67	.83	.97	.83	.94	.78	.67	.87	.30	.19
Group 11	.61	-.45	-.86	-.14	.63	.52	.24	-.50	-.47	.27	.70	.63	-.25	.87	-.44	.01	.88	.08	.26	.87	.23	.58	.71	.23	.81	.73	.73	.41	.80	.39	-.56	.02	-.54
Median*		.66			.67			.68			.70			.54			.66			.88			.68			.64			.86			.50	

*The median of all correlations for one DESB factor.

Table 10.--Means and standard deviations of DESB scores for the Jordan sample at each grade level and for the total sample.

	Factors	1 N = 102	2 N = 103	3 N = 102	4 N = 96	5 N = 101	6 N = 102	Total Sample N = 606
1.	Disturbance	11.5(4.8)	11.4(4.7)	11.5(5.6)	10.4(4.6)	10.8(4.4)	10.0(4.4)	11.0(4.8)
2.	Impatience	11.3(4.7)	12.8(5.5)	12.8(6.6)	12.0(5.0)	12.2(5.0)	12.7(4.6)	12.3(5.3)
3.	Defiance	7.1(3.2)	7.9(3.7)	7.3(3.7)	7.1(3.2)	7.6(3.9)	7.4(3.5)	7.4(3.5)
4.	Blame	8.1(3.3)	8.6(3.3)	8.9(3.9)	8.2(2.8)	9.4(3.4)	9.2(3.4)	8.7(3.4)
5.	Anxiety	12.5(4.4)	12.0(4.6)	14.8(5.2)	12.4(4.7)	12.8(4.4)	12.6(4.7)	12.8(4.8)
6.	Externality	18.0(5.6)	18.7(5.5)	19.8(7.3)	18.1(6.2)	18.5(6.1)	18.5(5.8)	18.6(6.1)
7.	Comprehension	13.1(4.4)	12.1(4.4)	12.6(5.5)	12.2(4.8)	11.0(4.7)	12.0(4.7)	12.2(4.8)
8.	Inattention	10.3(5.6)	11.0(5.1)	10.7(6.4)	10.9(5.3)	11.1(5.4)	11.1(4.7)	10.8(5.4)
9.	Irrelevance	7.9(3.1)	8.3(3.3)	8.3(4.3)	7.5(3.2)	8.2(3.3)	8.1(3.1)	8.0(3.4)
10.	Initiative	12.0(4.4)	11.0(4.5)	12.4(5.3)	11.1(4.8)	11.0(4.8)	11.0(4.4)	11.4(4.7)
11.	Closeness	15.5(4.3)	15.0(4.1)	15.8(5.3)	14.5(4.9)	13.5(4.7)	13.0(4.1)	14.5(4.7)
ADDITIONAL ITEMS								
27		4.1(2.1)	4.3(1.8)	4.7(2.0)	3.9(2.0)	3.8(2.0)	3.7(1.9)	4.1(2.0)
40		3.5(1.8)	3.4(1.7)	3.6(1.9)	3.6(2.0)	3.8(1.8)	3.7(1.7)	3.6(1.8)
41		3.2(1.9)	3.6(1.9)	3.7(2.2)	3.3(1.9)	3.4(1.9)	3.7(1.8)	3.5(1.9)

Table 11.--Means and standard deviations of DESB scores for the U.S. sample at each grade level and for the total sample.

	Factors	1 N = 121	2 N = 118	3 N = 107	4 N = 132	5 N = 108	6 N = 122	Total Sample N = 809
1.	Disturbance	9.7(4.4)	8.7(4.5)	10.3(4.9)	9.8(4.2)	9.7(4.4)	10.2(5.2)	9.9(4.7)
2.	Impatience	9.6(4.7)	8.6(4.5)	10.0(4.7)	10.9(5.2)	10.2(4.6)	9.7(3.8)	9.7(4.6)
3.	Defiance	5.2(2.0)	5.1(2.1)	5.9(2.9)	5.6(2.8)	6.3(3.1)	6.3(2.8)	5.8(2.7)
4.	Blame	5.6(2.8)	5.7(2.8)	7.1(4.5)	6.4(4.1)	6.5(3.7)	6.9(3.8)	6.5(3.8)
5.	Anxiety	9.4(5.0)	7.7(3.5)	8.2(3.9)	8.9(4.9)	9.9(4.3)	8.6(3.8)	8.3(4.3)
6.	Externality	13.4(5.7)	12.0(5.3)	13.0(7.0)	14.9(6.7)	13.8(5.8)	14.1(5.6)	13.7(6.1)
7.	Comprehension	13.1(3.9)	13.2(3.1)	12.9(3.9)	12.6(3.5)	13.0(3.7)	12.3(3.9)	12.9(3.7)
8.	Inattention	9.7(5.5)	7.9(4.1)	9.1(5.5)	10.8(6.0)	9.4(4.6)	9.3(5.2)	9.3(5.2)
9.	Irrelevance	7.9(3.1)	6.3(2.9)	7.4(3.0)	7.7(3.5)	8.0(3.5)	7.0(3.4)	7.5(3.3)
10.	Initiative	11.5(4.2)	11.2(3.6)	11.6(3.9)	11.4(4.3)	11.9(3.5)	10.9(4.1)	11.4(4.0)
11.	Closeness	15.3(5.1)	15.0(4.7)	14.4(4.9)	14.5(4.6)	14.9(4.3)	12.6(4.2)	14.4(4.7)
ADDITIONAL ITEMS								
27		2.3(1.4)	2.2(1.4)	2.1(1.4)	2.7(1.8)	2.7(1.5)	2.4(1.5)	2.4(1.5)
40		2.6(1.8)	2.1(1.4)	2.3(1.8)	2.7(1.9)	2.7(1.7)	2.7(1.6)	2.6(1.7)
41		2.5(1.7)	2.1(1.6)	2.7(1.9)	3.1(2.1)	2.8(1.8)	2.8(1.9)	2.7(1.9)

Table 12.--Z value for the differences of DESB factor means at each grade level and over the entire sample for both the Jordanian and American sample.

Factors	Grade Levels						Total Sample
	1	2	3	4	5	6	
1. Disturbance	3.0**	4.5**	1.7*	2.0*	3.6**	-.3	5.5**
2. Impatience	2.8**	7.0**	4.0**	1.6*	3.3**	6.0**	13.0**
3. Defiance	5.2**	7.0**	3.5**	5.0**	3.2**	2.7**	16.0**
4. Blame	.6	7.2**	3.6**	4.5**	7.2**	5.7**	22.0**
5. Anxiety	5.0**	8.6**	10.6**	5.8**	4.8**	8.0**	22.5**
6. Externality	6.1**	9.5**	7.5**	4.0**	5.8**	6.2**	16.3**
7. Comprehension	.0	-2.2*	-.75	-.8	-4.0**	-.6	-3.5**
8. Inattention	.8	5.1**	2.0*	0.2	2.8**	3.0**	7.5**
9. Irrelevance	.0	5.0**	4.5**	-.2	.5	11.0**	5.0**
10. Initiative	.9	-.4	1.6*	-.5	-1.8*	.2	.0
11. Closeness	.3	.0	2.0*	.0	-2.3**	.8	.5
ADDITIONAL ITEMS							
27	9.0**	10.5**	13.0**	6.0**	5.5**	6.5**	18.8**
40	4.5**	13.0**	6.5**	4.5**	5.5**	5.0**	11.1**
41	3.5**	1.0	5.0**	1.0	3.0**	4.5**	8.8**

*.05; ** .01.

items are included in the tables although this study is concerned only with the 11 factor scores. The data for the additional items are included here to be available for possible use in later development of the Arabic version of the scale.

Inspection of the tables reveals that the Jordan children at all grade levels and for most of the factors achieve higher mean scores than children in the U.S. sample. Z values were calculated to determine the statistical significance of these differences. These values are presented in Table 12. The differences in means between the U.S. and Jordan samples, and the statistical significance of these differences are presented in Table 13.

Except for factors 7, 10, and 11, high scores indicate disturbed behavior. For these three factors high scores indicate behaviors presumably supportive of classroom achievement. In Table 13 positive values for the differences for factors 1 through 6, 8, and 9, would indicate that the Jordan sample is rated as more disturbed. For factors 7, 10, and 11, positive values would indicate that the Jordan sample is rated as showing more comprehension, more initiative, and greater closeness to the teacher.

The trend for the Jordan sample to appear more disturbed than the U.S. sample occurs at all grade levels.

The negative mean differences for factor 7 indicate that subjects in the Jordan sample tend to be rated as less

Table 13.--Differences between the U.S. and Jordan factor means and standard deviations for each grade level and for the total sample.

Factor	Grade Levels						Total Sample
	1	2	3	4	5	6	
1. Disturbance	1.8* (.4)	2.7* (.2)	1.2* (.7)	1.0* (.3)	1.1* (-.10)	-.2 (-.4)	1.1* (.0)
2. Impatience	1.7* (.0)	4.2* (1.0)	2.8* (.9)	1.1* (-.6)	2.0* (-.3)	3.0* (.6)	2.6* (.7)
3. Defiance	1.9* (1.2)	2.8* (1.6)	1.4* (-.8)	1.5* (-.9)	1.3* (.2)	1.1* (-.3)	1.6* (-.3)
4. Blame	2.5* (.5)	2.9* (.5)	1.8* (-.0)	1.8* (-2.1)	2.9* (-.3)	2.3* (-.4)	2.2* (-.4)
5. Anxiety	3.1* (-.6)	4.3* (1.1)	6.4* (1.3)	3.5* (-.2)	2.9* (.1)	4.0* (.9)	4.5* (.5)
6. Externality	4.6* (-.1)	6.7* (.3)	6.8* (.3)	3.2* (-.5)	4.7* (.3)	4.4* (.2)	4.9* (.0)
7. Comprehension**	.0 (-1.3)	-1.1* (1.3)	-.3 (1.6)	-.4 (1.3)	-2.0* (1.0)	-.3 (.8)	-.7* (1.1)
8. Inattention	.6 (.0)	3.1* (-.4)	1.6* (.9)	.1 (-.7)	1.7* (.8)	1.8* (-.5)	1.5* (.2)
9. Irrelevance	.0 (.0)	2.0* (.4)	.9 (1.3)	-.2 (-.3)	.2 (-.2)	1.1* (-.3)	.5* (.1)
10. Initiative**	.5 (.2)	-.2 (.3)	.8 (1.4)	-.3 (.5)	-.9* (1.3)	.1 (.3)	.0 (.7)
11. Closeness*	.2 (.8)	.0 (-.7)	1.4* (.4)	.0 (.3)	-1.4* (.4)	.4 (-.2)	.1 (.0)

*Significant at the .05 level.

**For Factors 7, 10, and 11 negative mean difference values indicate that Jordanians tend to show more undesirable behavior. For all other items positive values indicate the Jordanians show more undesirable behavior.

able to comprehend the classroom activity than the U.S. sample. Thus, the results for this factor again show the Jordan sample as less "well adjusted." The only two factors for which there are not consistent significant differences between the Jordan and U.S. samples are factors 10 and 11.

Comparing the absolute values of the raw scores for two DESB factors is not meaningful. However, it does make sense to ask the following question: If the mean factor scores are rank ordered, will the rank orders be similar for the Jordan and U.S. samples? If, for some reason, teachers in Jordan interpret items, and thus rate behavior, very differently from U.S. teachers, or if Jordan children differ in their behaviors from U.S. children in some factors and not in others, the rank order of the factors could reasonably be expected to differ appreciably for the two samples. On the other hand, close correspondence of the two sets of rankings would be one type of evidence for the comparability of teacher perceptions, and child behavior, in the two cultures.

The ranks for the mean factor scores at each grade level and for the sample totals, and the Spearman rho coefficients for each pair of ranks are presented in Table 14. A rank of 1 is for the highest mean score.

It is apparent from inspection of the pairs of rankings, and from the magnitude of the rho coefficients that there is a high degree of similarity between the Jordan and U.S. samples in the rank order of the mean factor scores. The

Table 14.--Rank order of the mean scores of the factors at each grade level for the Jordan and U.S. samples.*

	Factor	Grade Level													
		1		2		3		4		5		6		Total	
		J	U.S.	J	U.S.	J	U.S.	J	U.S.	J	U.S.	J	U.S.	J	U.S.
1.	Disturbance	6	5.5	6	5	7	5	8	7	8	7	8	5	7	5
2.	Impatience	7	7	3	6	4	6	5	5	4	5	3	6	4	6
3.	Defiance	11	11	11	11	11	11	11	11	11	11	11	11	11	11
4.	Blame	9	10	9	10	9	10	9	10	9	10	9	10	9	10
5.	Anxiety	4	8	5	8	3	8	3	8	3	6	4	8	3	8
6.	Externality	1	2	1	3	1	2	1	1	1	2	1	1	1	2
7.	Comprehension	3	3	4	2	5	3	4	3	6.5	3	5	3	5	3
8.	Inattention	8	5.5	7.5	7	10	7	7	6	5	8	6	7	8	7
9.	Irrelevance	10	9	10	9	8	9	10	9	10	9	10	9	10	9
10.	Initiative	5	4	7.5	4	6	4	6	4	6.5	4	7	4	6	4
11.	Closeness	2	1	2	1	2	1	2	2	2	1	2	2	2	1
rho		.88		.81		.76		.85		.81		.77		.79	

*A rank of 1 is for the highest mean score, etc.

correlations would be even higher but for the discrepancy in Factor 5, the only factor that shows appreciable discrepancy in rank between the two samples.

This difference in the ranking of Factor 5 can be interpreted to mean that achievement anxiety is viewed by the teachers as a relatively more frequent problem in the Jordan sample than in the U.S. sample.

The close similarity between the sets of rankings occurs at all grade levels, as indicated by the rank order correlations which vary from .76 to .88.

Question 2. Is the pattern of intercorrelations of factor scores comparable for the Jordan and U.S. samples?

The ideal way to compare the pattern of intercorrelations of the factor scores would be to compare factor analyses of data from the two samples. But since the factor analytic study of the U.S. sample is not available this approach cannot be used.

The intercorrelation matrix of the factor scores for the Jordan sample are presented in Table 15; for the U.S. sample in Table 16.

In order to informally evaluate the similarity of these matrices it was decided to assess agreement in the following manner. The corresponding correlation coefficients in the U.S. and Jordan matrices were considered in agreement if they

Table 15.--Intercorrelations among the subscales of the DESB (Jordan Sample).

	Subscale	1	2	3	4	5	6	7	8	9	10	11
1.	Disturbance		.64*	.74	.41	-.18	.53	-.40	.58	.67	-.29	-.14
2.	Impatience			.62	.50	-.21	.74	-.51	.65	.55	-.45	-.22
3.	Defiance				.46	-.31	.51	-.50	.65	.64	-.38	-.26
4.	Blame					.09	.48	-.31	.46	.50	-.21	-.14
5.	Anxiety						-.16	.56	-.36	-.04	.51	.46
6.	Externality							-.54	.70	.42	-.55	-.26
7.	Comprehension								-.69	-.32	.77	.58
8.	Inattention									.50	-.64	-.47
9.	Irrelevance										-.13	-.05
10.	Initiative											.67
11.	Closeness											

*Significant values of r are underlined (.05 level).

Table 16.--Intercorrelations among the subscales of the DESB (U.S. sample).

	Subscale	1	2	3	4	5	6	7	8	9	10	11
1.	Disturbance		.66*	.82	.65	.18	.44	-.11	-.04	.54	.19	-.03
2.	Impatience			.64	.57	.22	.47	-.17	.16	.49	.07	.03
3.	Defiance				.73	.25	.36	-.13	-.06	.42	.04	-.15
4.	Blame					.34	.34	-.06	-.18	.38	.36	.08
5.	Anxiety						-.05	.18	-.06	.10	.27	.01
6.	Externality							-.51	.38	.37	-.08	.07
7.	Comprehension								-.37	-.21	.40	.02
8.	Inattention									.25	-.41	-.12
9.	Irrelevance										.16	.07
10.	Initiative											.39
11.	Closeness											

*Significant values of r are underlined (.05 level).

were both: (1) positive in value and statistically significant, (2) negative in value and statistically significant, or (3) not significant. Using this procedure 31, or 56%, were found to be in agreement. Another 16, or 29%, are in the same direction although both are not statistically significant. However, when the comparisons were made in a search for complete disagreement it was found that in only one instance was one of the corresponding coefficients positive and significant while the other was negative and significant (r between Factors 3 and 5).

These findings suggest, in the absence of factor analyses, that the factor structures of the two sets of data would probably be found to be quite similar. However, there are some consistent differences which suggest that several of the DESB subscales may have a different meaning in Jordan than in the U.S. The two scales showing the least agreement are Factors 7 and 8.

Factor 7 is labelled comprehension. In the U.S. it is not significantly correlated with Factors 1 through 4, factors concerned with overt classroom disturbance, while in Jordan the Comprehension factor is significantly negatively correlated with these four factors. Similarly, Factor 8, inattention-withdrawn, is not significantly correlated with these first four factors in the U.S. sample whereas it is positively correlated with them in the Jordan sample.

Since the correlation matrix for the intercorrelations of the subscales in the U.S. sample is available, a second method of comparing the Jordan and U.S. matrices (Tables 15 and 16) is possible through the use of factor analysis. In Tables 17 and 18 are presented these factor matrices for the Jordan and U.S. samples respectively. These are varimax rotated factor matrices after rotation with Kaiser normalization.

It is immediately apparent that Factors II and III are quite dissimilar for the two samples. In the Jordan sample Factor II is best defined by the subscales 7, 10, and 11, scales which reflect positive classroom behaviors. And the Anxiety subscale (Factor 5) is also highly loaded on this factor. In the U.S. sample, on the other hand, DESB Factors 6, 7, and 8 have high loadings on Factor II.

Similarly the pattern of loadings for Factor III is markedly different in the two samples. In the U.S. sample the factor with the highest loading is Factor 10, Initiative; while in the Jordan sample Factor 6, Externality, has the highest loading. The pattern of other loadings also suggests that the Factor III's in the two studies require different interpretations.

Factor I appears to be a factor suggesting overt behavioral disturbance in both samples.

Table 17.--Rotated factor loadings for the DESB factor scores in the Jordan sample.

Subscale (DESB Factor)	I	II	III
1	.80	-.15	.23
2	.57	-.24	.55
3	.80	-.30	.18
4	.43	-.00	.49
5	-.14	.72	.17
6	.38	-.29	.72
7	-.29	.76	-.30
8	.50	-.52	.48
9	.76	.01	.24
10	-.07	.83	-.39
11	-.02	.70	-.15

Table 18.--Rotated factor loadings for the DESB factor scores in the Jordan sample.

Subscale (DESB Factor)	I	II	III
1	.88	.06	-.01
2	.73	.22	.02
3	.93	-.02	-.22
4	.81	-.06	.39
5	.28	-.17	.13
6	.43	.56	.05
7	.08	-.85	.11
8	.10	.81	-.14
9	-.51	.29	.13
10	.25	-.37	.90
11	-.04	.02	.45

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It can be concluded that the factor structures are sufficiently dissimilar to suggest that there are some differences in the variables being measured by the DESB subscales in the two cultures.

Question 3. How do sex differences in factor means compare for the U.S. and Jordan samples?

In their study of U.S. children Swift and Spivack (1968) state that "On 9 of the 11 factors, boys were rated as producing more problems than girls . . . all differences between boys and girls were highly significant." (p. 144)

No such consistent differences were found for the Jordan sample. Means on the 11 factors for the males and females in the Jordan sample are compared in Table 19. Significant differences occurred only for Factors 1 and 4; boys being rated as significantly more disturbed in the classroom, and as tending less to the external placement of blame.

In evaluating this finding it should be recalled that in the Jordan sample, females were rated by female teachers and males by male teachers, whereas in the U.S. sample all but 4 of the 32 teachers doing the rating were females. In any case, in the U.S. sample teachers rated children of both sexes whereas in Jordan teachers rated children of only one sex. Therefore, the failure to find the consistent sex differences in the Jordan sample, may be due to this different relationship between the sex of the rater and that of the child being rated in the two studies.

Table 13 --Mean factor scores and standard deviations as a function of sex and nationality

Table 19.--Mean factor scores and standard deviations as a function of sex and nationality.

	Factor	Female N = 285		Male N = 318		Diff.	Palestinian N = 340		Jordanian N = 266		Diff.
		M	SD	M	SD		M	SD	M	SD	
1.	Disturbance	10.4	(4.8)	11.6	(4.7)	-1.2*	11.1	(4.8)	10.9	(4.8)	.2
2.	Impatience	11.9	(5.2)	12.7	(5.4)	-.8	12.3	(5.2)	12.3	(5.4)	.0
3.	Defiance	7.2	(3.7)	7.6	(3.4)	-.4	7.4	(3.5)	7.4	(3.6)	.0
4.	Blame	9.0	(3.4)	8.5	(3.4)	.5*	8.8	(3.4)	8.6	(3.4)	.2
5.	Anxiety	13.0	(4.8)	12.7	(4.7)	.3	12.7	(4.6)	13.0	(5.0)	-.3
6.	Externality	18.3	(5.9)	18.8	(6.3)	-.5	18.0	(6.1)	18.3	(6.1)	.6
7.	Comprehension	11.9	(4.8)	12.4	(4.7)	-.5	12.0	(4.7)	12.4	(4.8)	-.4
8.	Inattention	10.9	(5.3)	10.7	(5.5)	.2	11.2	(5.5)	10.5	(5.4)	.7
9.	Irrelevance	8.1	(3.7)	8.0	(3.2)	.1	8.0	(3.3)	8.1	(3.5)	-.1
10.	Initiative	11.3	(4.8)	11.5	(4.6)	-.2	11.1	(4.7)	11.8	(4.8)	-.7
11.	Closeness	14.4	(4.5)	14.7	(4.8)	-.3	14.4	(4.8)	14.8	(4.6)	-.4

*Significant at the .05 level.

Question 4. How do the relationships between reading and arithmetic achievement scores and the factor scores compare for the Jordan and U.S. samples?

The correlations of factor scores with reading and arithmetic scores at each grade level are presented in Table 20 for the Jordan sample and in Table 21 for the U.S. sample. Z values and the significance of the differences between corresponding correlations are presented in Table 22. In Tables 20 and 21 statistically significant correlations are underlined.

It is immediately apparent from inspection of Tables 20 and 21 that, in the Jordan sample, the correlations between the factors and the two achievement measures tend to be higher than for the U.S. sample. In 52, or 93%, of the statistically significant differences reported in Table 22, the correlation is greater for the Jordan member of the pair. Thus, it may be concluded that the relationship between the DESB factors and school achievement has been successfully replicated in this Jordan sample.

For nine of the factors the pattern is for the Jordan correlations to be in the same direction, and often greater than in the U.S. sample. However, for two factors the pattern is different.

Factor 5 tends to be negatively correlated with achievement in the U.S. sample, but positively correlated with

Table 20.--Correlation between factor scores and reading and arithmetic classroom achievement grades for the Jordan Sample.

	Factor		Grade Levels					
			1 R:N=102 A:N=102	2 R:N=103 A:N=103	3 R:N=102 A:N=102	4 R:N=96 A:N=96	5 R:N=101 A:N=101	6 R:N=102 A:N=102
1.	Disturbance	R	-.20*	-.47	-.46	-.48	-.42	-.30
		A	-.20	-.45	-.43	-.47	-.38	-.41
2.	Impatience	R	-.41	-.54	-.54	-.54	-.57	-.54
		A	-.42	-.48	-.48	-.48	-.49	-.50
3.	Defiance	R	-.35	-.54	-.55	-.51	-.47	-.48
		A	-.37	-.51	-.55	-.49	-.37	-.47
4.	Blame	R	-.27	-.29	-.37	-.25	-.37	-.19
		A	-.22	-.28	-.37	-.23	-.33	-.33
5.	Anxiety	R	.31	.62	.50	.57	.52	.36
		A	.30	.66	.49	.49	.41	.39
6.	Externality	R	-.52	-.52	-.68	-.52	-.56	-.47
		A	-.57	-.49	-.67	-.50	-.49	-.44
7.	Comprehension	R	.73	.80	.72	.74	.78	.64
		A	.72	.73	.76	.70	.72	.66
8.	Inattention	R	-.58	-.67	-.75	-.63	-.67	-.64
		A	-.59	-.59	-.76	-.53	-.59	-.65
9.	Irrelevance	R	-.13	-.33	-.49	-.21	-.25	-.33
		A	-.13	-.32	-.47	-.16	-.32	-.38
10.	Initiative	R	.72	.71	.67	.67	.69	.64
		A	.72	.64	.71	.68	.71	.64
11.	Closeness	R	.37	.58	.52	.49	.55	.42
		A	.33	.51	.58	.51	.51	.46

*Underlined values are significant at the .05 level.

Table 21.--Correlations between factor scores and reading and arithmetic classroom achievement grades for the U.S. sample.

	Factor		Grade Levels					
			1 R:N=53 A:N=53	2 R:N=73 A:N=50	3 R:N=106 A:N=106	4 R:N=131 A:N=53	5 R:N=86 A:N=39	6 R:N=87 A:N=122
1.	Disturbance	R	-.24	-.22	-.37	-.28	-.29	-.21
		A	-.30*	-.37	-.20	-.39	-.40	-.34
2.	Impatience	R	-.54	-.30	-.37	-.29	-.45	-.10
		A	-.54	-.47	-.27	-.50	-.43	-.46
3.	Defiance	R	-.08	-.14	-.22	-.22	-.22	-.27
		A	-.20	-.27	-.11	-.22	-.26	-.28
4.	Blame	R	-.13	-.20	-.16	-.21	-.16	-.27
		A	-.07	-.39	-.05	-.22	-.35	-.28
5.	Anxiety	R	-.15	-.09	.00	-.20	-.05	-.27
		A	.03	-.27	.06	.08	-.50	-.68
6.	Externality	R	-.77	-.38	-.59	-.38	-.51	-.27
		A	-.62	-.47	-.50	-.35	-.56	-.68
7.	Comprehension	A	.89	.50	.77	.45	.63	.25
		A	.71	.51	.77	.47	.74	.78
8.	Inattention	R	-.74	-.37	-.52	-.30	-.48	-.15
		A	-.65	-.32	-.49	-.45	-.60	-.65
9.	Irrelevance	R	-.39	-.17	-.40	-.35	-.07	-.12
		A	-.45	-.36	-.20	-.37	-.50	-.25
10.	Initiative	R	.60	-.41	.39	.42	.35	.21
		A	.50	.13	.43	.34	-.04	.55
11.	Closeness	R	.51	.46	-.02	.08	.04	-.05
		A	.32	.06	.06	.05	-.01	.21

*Underlined values are significant at the .05 level.

Table 22.--Z values for differences between U.S. and Jordan samples in correlation coeffients relating DESB cases and achievement grades.

Factor	Grade Levels					
	1	2	3	4	5	6
1. Disturbance	R: -.23 A: -.64	R: 1.87 A: .51	R: .79 A: 1.86	R: 1.41 A: .57	R: 1.01 A: -.18	R: 1.35 A: .66
2. Impatience	R: -.92 A: -.87	R: 1.87 A: .06	R: 1.50 A: 1.71	R: 1.84 A: -.17	R: 1.14 A: .41	R: 3.38* A: .37
3. Defiance	R: 1.67 A: 1.10	R: 2.97* A: 1.59	R: 2.86* A: 3.64*	R: 2.09* A: 1.83	R: 1.95* A: .62	R: 1.62 A: 1.62
4. Blame	R: .87 A: .87	R: .65 A: -.68	R: 1.64 A: 3.14*	R: .30 A: .05	R: 1.54 A: -.15	R: -.61 A: .37
5. Anxiety	R: 2.72* A:-1.62	R: 5.29* A:-6.08*	R:-3.92* A:-3.42*	R:-5.21* A:-2.63*	R:-4.23* A:-5.08*	R:-4.46* A:-9.12*
6. Externality	R:-2.54* A: -.46	R: 1.16 A: .17	R: 1.07 A: 1.86	R: 6.01* A: 5.26*	R: .47 A: -.46	R: 1.55 A:-2.65*
7. Comprehension	R:-3.58* A: .12	R:-3.55* A:-2.10*	R: .79 A: -.64	R:-2.88* A:-2.06*	R:-2.08* A: .20	R:-3.38* A: 1.91
8. Inattention	R:-1.68 A: -.58	R: 2.71* A: 1.99*	R: 2.79* A: 3.29*	R: 2.64* A: .63	R: 1.95* A: -.31	R: 4.12* A: 0.0
9. Irrelevance	R:-1.62 A:-2.02*	R: 1.10 A: -.28	R: .86 A: 2.21*	R: -.98 A:-1.31	R: 1.27 A:-1.13	R: 1.49 A: 1.03
10. Initiative	R: 1.27 A:-2.08*	R:-8.58* A:-3.58*	R:-2.86* A:-3.07*	R:-2.21* A:-2.74	R:-3.22* A:-4.77*	R:-3.72* A:-1.03
11. Closeness	R: .98 A: .06	R:-1.03 A:-2.84*	R:-4.28* A:-4.28*	R:-2.82* A:-2.91*	R:-3.89* A:-2.92*	R:-3.38* A:-2.13*

*Significant at .05 level.

achievement in the Jordan sample. This means that in the U.S. sample there is little or no relationship between "achievement anxiety" and achievement, whereas in the Jordan sample subjects who are seen as anxious about achievement tend to be high achievers. In the U.S. sample, on the other hand, at grades 5 and 6 there are significant negative correlations between anxiety and achievement.

Factor 11 shows a similar pattern: generally low correlations for the U.S. sample; significant positive correlations for the Jordan sample. Thus, in the Jordan sample a need for closeness to the teacher tends to be positively correlated with achievement, while this tendency is not generally apparent for the U.S. sample.

Question 5. How do the scores of Jordanian children, selected by teachers as disturbing, compare to the U.S. and Jordan norms?

In their profile to be used in the interpretation of the DESB, Spivack and Swift (1967) use the range of plus or minus 1 standard deviation from the mean to define non-deviant, or normal, scores. They state that:

> For all but Factors 7, 10, and 11, a score above plus 1 SD suggests an area of behavioral difficulty which is not conducive to successful academic functioning. For Factors 7, 10, and 11 . . . a score below (1 SD) . . . is indicative of learning difficulties. (p. 8)

To evaluate the effectiveness of the DESB in identifying behaviorally disturbed children in Jordan, the scores of a group so identified by teachers were evaluated by this use

of the profile suggested in the DESB manual. In Table 23 the mean scores for the group of disturbed children are presented along with the normal range as defined by the Spivack and Swift criterion: that is, plus and minus 1 standard deviation from the mean. Also included in the table is a column indicating for each factor the number of these disturbed children whose factor score is outside of the normal range, either below or above.

It is apparent that the mean factor scores for the disturbed children are generally "deviant" when compared to both the U.S. and Jordan samples, and in the expected direction.

As an exception to this trend the Factor 5 mean for the disturbed group is within normal range for both comparison groups. This means that these disturbed children, on the average, are not seen as having achievement anxiety--as being overly concerned about school success. It will be noted that the mean also falls in the normal range on Factor 11, closeness to the teacher.

Perhaps of more relevance are the data relating to the number of children whose factor scores would be interpreted as deviant as shown in the last column of Table 23. In these comparisons the Jordan norms were used since they tend to be consistently higher than the U.S. norms.

For the large majority of the factors the majority of these deviant cases have scores that fall in the deviant

Table 23.--Relationship of the scores of the Jordan sample of disturbed children to the Jordan and U.S. DESB norms.

	Factor	Disturbed Children		Normal Range		Number of Deviant Scores*		
		M	SD	Jordan	U.S.	Below	Normal	Above
1.	Disturbance	18.4	4.5	6.2-15.8	5.2-14.6	--	2	10
2.	Impatience	17.9	3.9	7.0-17.6	5.1-14.3	--	6	6
3.	Defiance	14.0	5.5	3.9-10.9	3.1-8.5	--	2	10
4.	Blame	11.3	2.3	4.3-12.1	2.7-10.3	--	9	3
5.	Anxiety	8.7	3.1	8.0-17.6	4.0-12.6	5	7	--
6.	Externality	25.4	3.1	12.5-24.7	7.6-19.8	--	5	7
7.	Comprehension	5.3	1.9	7.4-17.0	9.2-16.6	10	2	--
8.	Inattention	20.0	2.7	5.4-16.2	4.1-14.5	--	--	12
9.	Irrelevance	13.3	5.1	4.6-11.4	4.2-10.8	1	3	8
10.	Initiative	5.9	2.0	6.7-16.1	7.4-15.4	9	3	--
11.	Closeness	10.8	4.8	9.8-19.2	9.7-19.1	4	7	1

*Below or above the Jordan range.

area; that is, above or below the normal range. Thus, this scale would have identified those children who were singled out by teachers as classroom behavior problems.

Question 6. What are the differences in factor scores between Palestinian and Jordanian children?

The mean factor scores of the Palestinian and Jordanian subgroups and the differences between them are presented in Table 19. None of the differences are statistically significant. It is obvious that the writer's expectation that the Palestinian children would more frequently be rated as showing disturbing classroom behavior was not borne out.

CHAPTER 4

SUMMARY AND DISCUSSION

Summary

This study was undertaken as a first step in the development of an assessment device to be used in the emerging field of special education in the country of Jordan. The DESB was selected because it can be administered and evaluated by teachers, and provides information about behaviors that are immediately relevant to the conduct of the classroom.

The purpose of the study was to prepare an Arabic translation of the DESB scale and to compare the data derived from its application in Jordan with data from the use of the original DESB in the U.S. A by-product of this study is the beginning of the accumulation of standardization data to support future clinical use of the scale in Jordan.

For this study a sample of students in Jordan was selected to match the U.S. standardization sample. A total of 603 subjects were finally included in the study, approximately 100 from each grade level, first through sixth grade. Subjects were also divided by sex and nationality--Palestinian and Jordanian. In addition, 12 subjects identified by teachers as displaying disruptive behaviors in the classroom were included.

The findings are reported in terms of the following six research questions:

1. How do the mean scores on the 11 DESB factors for the Jordan sample compare to those for the U.S. standardization sample?
2. Is the pattern of intercorrelations of factor scores comparable for the Jordan and U.S. samples?
3. How do sex differences in factor means compare for the U.S. and Jordan samples?
4. How do the relationships between reading and arithmetic achievement scores and the factor scores compare for the U.S. and Jordan samples?
5. How do the scores of Jordanian children, selected by teachers as disturbing compare to the U.S. and Jordan norms?
6. What are the differences in factor scores between Palestinian and Jordanian children?

Rater agreement was also investigated as an important aspect of scale development.

Following is a summary of the major findings of the study:

1. The level of rater agreement for the Arabic DESB in Jordan appears to be satisfactory and encouraging for the future development of the scale. Based on the stringent definition of rater agreement used in this study, grade and sex subgroup means for

the percentage of items for each subject in which the agreement criterion was reached varied from 66.7% for sixth grade males to 79.5% for fourth grade males.

2. There is a general trend for the mean scores on those DESB factors relating to disruptive behavior (Factors 1-6, 8, and 9) to be higher in the Jordan than in the U.S. sample. Thus, Jordanian children tend to be rated as being more disruptive than U.S. children.
3. On Factor 7, comprehension, the means for the Jordan groups are lower than for the U.S. groups, suggesting that the Jordanian children are seen as less able to comprehend the classroom activities.
4. When the mean raw factor scores for the Jordan and the U.S. samples are ranked the rankings correspond closely, offering some tangential support for the belief that the scale is being interpreted similarly by the raters in the two cultures, and that child behavior is reasonably similar. These rankings were highly correlated at all grade levels, with Spearman rho's varying from .76 to .88.

   The only factor that showed consistent discrepancy in rank between the two samples was Factor 5. This is interpreted to mean that achievement anxiety is viewed by the teachers as a relatively more frequent problem in the Jordan than in the U.S. sample.

5. The pattern of intercorrelations of the subscales for the Jordan sample was judged to be sufficiently similar to the U.S. pattern to suggest a similar factor structure. Eighty-five percent of the corresponding pairs of correlation coefficients were in the same direction. The two factors showing the least similarity in their pattern of intercorrelations were Factor 7, comprehension; and Factor 8, inattentive-withdrawn.
6. The consistent sex differences in DESB factor scores reported for the U.S. sample were not found in the Jordan sample. On only two factors were significant differences found: Factors 1 and 4. Boys were found to be more disruptive in the classroom and girls were found to be more likely to place blame externally.
7. The pattern of correlation of DESB factor scores with reading and arithmetic achievement in the Jordan sample approximated the pattern in the U.S. sample. The correlations are consistently higher in the Jordan sample. In 93% of the statistically significant differences between corresponding pairs of correlation coefficients, the Jordan member of the pair was the larger. Thus, the DESB appears to be a better predictor of academic achievement in Jordan than in the U.S.

Two factors did not fit this pattern: Factors 5 and 11. In Jordan, subjects who are seen as anxious about achievement tend to secure high achievement grades, whereas this relationship does not appear in the U.S. sample. Similarly, in Jordan a need for closeness to the teacher tends to be positively correlated with achievement, a tendency not generally apparent in the U.S. sample.

8. Jordanian children identified by teachers as disturbed tend to have DESB factor scores which fall outside of the range of normal on a profile developed from the DESB Jordan sample data. This finding offers evidence in support of the predictive validity of this Arabic translation of the scale.
9. Mean DESB factor scores did not differ significantly for the Palestinian and Jordanian subgroups.

Discussion

The writer reached the conclusion that, in general, the Arabic DESB rating scale produced data sufficiently similar to the U.S. data to suggest that the instrument in its present translation merits further development and application. This conclusion is based on the similarities of the U.S. and Jordan data in: (1) the pattern of mean DESB factor scores, (2) the pattern of subtest (factor) intercorrelations, and (3) in the relationship of factor scores to reading and arithmetic achievement.

The differences in the findings in the two cultures are of interest, particularly as they suggest areas for future investigation. It was recognized that the interpretation of the findings is inherently complicated by the fact that comparisons of the U.S. and Jordan data always involve two major variables: rater perceptions and child characteristics. If Jordanian children are found to secure different ratings from U.S. children it may be attributed to the fact that, although child behavior is the same, Jordanian teachers view behavior differently, or on the other hand, that Jordanian children do in fact behave differently. However, these differences can be tentatively interpreted, assuming one or the other of these causal explanations.

The first difference of note is to be found in the generally higher factor scores for the Jordan sample. The Jordanian children appear to show more of the behaviors that interfere with classroom achievement. To the writer this is a paradoxical finding since it is her observation that because of the more strict discipline and expectations of children in the classrooms of Jordan, overt disruptive behavior occurs less frequently than in U.S. classrooms. Therefore, the writer is inclined to attribute the generally higher scores to teacher perceptions. This would suggest that Jordanian teachers view infractions or deviance more seriously and thus set higher standards for their ratings.

Is there evidence to support the opposite assumption: namely, that the children in Jordan are in fact more inclined to engage in behavior detrimental to school learning than are U.S. children? The writer can find nothing in the data from the Jordan sample to support this assumption. However, Swift and Spivack (1968) report a finding that may have a bearing on this issue. They state that, ". . . the higher the parents' level of education, the lower the likelihood of behavior difficulties in the child, and the greater his understanding of and productive involvement in classroom activity." It is reasonable to assume that the level of education of the parents in the Jordan sample is lower than that for the U.S. sample. If the Jordanian children are less well adjusted to the academic classroom, the educational level of their parents may be a relevant factor, assuming that the relationship reported for the U.S. would be the same in Jordan.

A second difference between the U.S. and Jordan data was in the tendency for the correlation of DESB factors and achievement grades to be higher in Jordan. There is a possibility that in the Jordan study these correlations may have been inflated by the fact that in an undetermined number of instances the teacher who provided the DESB ratings also assigned the reading and arithmetic grades. It is reasonable to assume that a teacher's perception of the child's behavior may influence his/her grading, or that,

conversely, the child's level of academic success may influence his/her evaluation of the child's behavior. Such interaction of the two judgments would tend to produce spuriously high correlations between the DESB factor scores and reading and arithmetic grades. Since teachers who served both functions were not identified there is no way to test this assumption with the present data.

Data from the small sample of children volunteered by teachers as displaying disturbing behavior in the classroom offer strong support for the potential ability of this adaptation of the DESB to serve a useful purpose in Jordan. The children received many highly deviant scores and thus would have been identifiable as disturbed on the basis of this assessment device. It is noteworthy that apparently the DESB scale gave teachers the opportunity to express in their ratings the strong feelings about the child that had originally motivated them to volunteer to undertake the ratings.

The data relating to rater agreement was interpreted as showing a satisfactory level of agreement. At the same time, it was apparent that the teachers had difficulty in agreeing on the ratings for some children. The possible sources of error have been discussed, particularly the possible rating of a child in three different settings. The fact that there is a moderately high level of agreement in spite of these sources of error argues for the possibility

of highly satisfactory rater agreement under better circumstances.

Recommendations for Further Research

If the DESB is to be used in cross-cultural studies of child behavior it will be important to be able to establish the fact that obtained differences or similarities between children's behavior in two cultures are due to child behavior and not to rater perceptions. In the present study these two sources of variance are not separable.

One method of approach to this problem would be to hold the child behavior variable constant. For example, child behaviors recorded on film or TV tape, could be rated by teachers in the U.S. and Jordan in an effort to determine if there are differences in the teachers' perceptions of the same behavior.

A second approach might be to attempt to control rater evaluations of behavior by more intensive training of raters, including the provision of behavior samples to more clearly define the rating variables.

While it was concluded from the present study that this translation of the U.S. form of the DESB appears to be a useable test for the Jordan population, a more useful form of the test for everyday use in Jordan might be created by developing an Arabic version of the DESB by carrying out, in Jordan, the test development procedures that were followed during its development in the U.S. That is, examples of

disruptive behavior would be gathered from teachers in Jordan and these would be assembled and processed to create the final set of items for inclusion in the rating scale.

When differences occurred in comparisons of results for the U.S. and Jordan samples, Factor 5 relating to achievement anxiety was often involved. When the total group means for the Factor scores were rank ordered in the U.S. and Jordan samples it was the only factor with a sizeable discrepancy in its rankings. When the subtest intercorrelation matrices for the U.S. and Jordan samples were compared, Factor 5 was involved in the only pair of correlations in which one member was significant and positive while the other was significant and negative in value. Factor 5 tended to positively correlate with achievement in the Jordan sample, while being uncorrelated or negatively correlated with achievement in the U.S. sample. Finally, unlike the great majority of the other factors, scores on Factor 5 for the disturbed group tended to be nondeviant. It is obvious that achievement anxiety differs somehow among U.S. and Jordanian children, or it is perceived differently by teachers in the two cultures. This difference merits further exploration.

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APPENDIX

DEVEREUX ELEMENTARY SCHOOL BEHAVIOR RATING SCALE *

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

Devereux Foundation Institute for Research and Training

Student's Name _____ Teacher's Name _____

Student's Sex _____ Age _____ Academic Subject _____

Grade _____ School _____ Date of Rating _____

RATING GUIDE

1. Base rating on student's recent and current behavior.	Consider only the behavior of the student over the past month.
2. Compare the student with normal children his age.	The standard for comparison should be the average youngster in the normal classroom situation.
3. Base rating on your own experience with the student.	Consider only your own impression. As much as possible, ignore what others have said about the student and their impressions.
4. Consider each question independently.	Make no effort to describe a consistent behavioral picture or personality. It is known that children may show seemingly contradictory behavior.
5. Avoid interpretations of "unconscious" motives and feelings.	As much as possible, base ratings on outward behavior you actually observe. Do not try to interpret what might be going on in the student's mind.
6. Use extreme ratings whenever warranted.	Avoid tending to rate near the middle of all scales. Make use of the full range offered by the scales.
7. Rate each item quickly.	If you are unable to reach a decision, go on to the next item and come back later to those you skipped.
8. Rate every question.	Attempt to rate each item. If you are unable to rate a particular item because it is not appropriate to the child in question, or because of lack of information, circle the item number.

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YOU ARE GOING TO RATE THE OVERT BEHAVIOR OF A STUDENT. FOR ITEMS 1-26 USE THE RATING SCALE BELOW. WRITE YOUR RATING (NUMBER) FOR EACH ITEM IN THE BOX TO THE LEFT OF THE ITEM NUMBER.

Very frequently	Often	Occasionally	Rarely	Never
5	4	3	2	1

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, HOW OFTEN DOES THE CHILD...

Rating	Item
☐	1. Start working on something before getting the directions straight?
☐	2. Say that the teacher doesn't help him enough (i.e., won't show him how to do things, or answer his questions)?
☐	3. Bring things to class that relate to current topic (e.g., exhibits, collections, articles, etc.)?
☐	4. Tell stories or describe things in an interesting and colorful fashion (e.g., has an active imagination, etc.)?
☐	5. Speak disrespectfully to teacher (e.g., call teacher names, treat teacher as an equal, etc.)?
☐	6. Initiate classroom discussion?
☐	7. Act defiant (i.e., will not do what he is asked to do, says: "I won't do it")?
☐	8. Seek out the teacher before or after class to talk about school or personal matters?
☐	9. Belittle or make derogatory remarks about the subject being taught (e.g., "spelling is stupid")?
☐	10. Get the point of what he reads or hears in class?
☐	11. Have to be reprimanded or controlled by the teacher because of his behavior in class?
☐	12. Poke, torment, or tease classmates?
☐	13. Annoy or interfere with the work of his peers in class?
☐	14. Tell stories which are exaggerated and untruthful?
☐	15. Give an answer that has nothing to do with a question being asked?
☐	16. Break classroom rules (e.g., throw things, mark up desk or books, etc.)?
☐	17. Interrupt when the teacher is talking?
☐	18. Quickly lose attention when teacher explains something to him (e.g., becomes fidgety, looks away, etc.)?
☐	19. Offer to do things for the teacher (e.g., erase the board, empty the pencil sharpener, open the door, get the mail, etc.)?
☐	20. Makes you doubt whether he is paying attention to what you are doing or saying (e.g., looks elsewhere, has blank stare or faraway look, etc.)?
☐	21. Introduce into class discussion personal experiences or things he has heard which relate to what is going on in class?
☐	22. Get openly disturbed about scores on a test (e.g., may cry, get emotionally upset, etc.)?
☐	23. Show worry or get anxious about knowing the "right" answers?
☐	24. Look to see how others are doing something before he does it (e.g., when teacher gives a direction, etc.)?
☐	25. Complain teacher never calls on him (e.g., that teacher calls on others first, etc.)?
☐	26. Make irrelevant remarks during a classroom discussion?

FOR ITEMS 27-47 USE THE RATING SCALE BELOW:

Extremely	Distinctly	Quite a bit	Moderately	A little	Very slightly	Not at all
7	6	5	4	3	2	1

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, TO WHAT DEGREE IS THE CHILD...

Rating	Item
☐	27. 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.)?
☐	28. Oblivious to what is going on in class (i.e., not "with it," seems to be in own "private" closed world)?
☐	29. Reliant upon the teacher for directions and to be told how to do things or proceed in class?
☐	30. Quickly drawn into the talking or noise-making of others (i.e., stops work to listen or join in)?
☐	31. Outwardly nervous when a test is given?
☐	32. Unable to follow directions given in class (i.e., need precise directions before he can proceed successfully)?
☐	33. Sensitive to criticism or correction about his school work (e.g., gets angry, sulks, seems "defeated", etc.)?
☐	34. Prone to blame the teacher, the test, or external circumstances when things don't go well?
☐	35. Able to apply what he has learned to a new situation?
☐	36. Sloppy in his work (e.g., his products are dirty or marked up, wrinkled, etc.)?
☐	37. Likely to know the material when called upon to recite in class?
☐	38. Quick to say work assigned is too hard (e.g., "you expect too much," "I can't get it," etc.)?
☐	39. Responsive or friendly in his relationship with the teacher in class (vs. being cool, detached or distant)?
☐	40. Likely to quit or give up when something is difficult or demands more than usual effort?
☐	41. Slow to complete his work (i.e., has to be prodded, takes excessive time)?
☐	42. Swayed by the opinion of his peers?
☐	43. Difficult to reach (e.g., seems preoccupied with his own thoughts, may have to call him by name to bring him out of himself)?
☐	44. Unwilling to go back over his work?

COMPARED WITH THE AVERAGE CHILD IN THE NORMAL CLASSROOM SITUATION, TO WHAT DEGREE DOES THE CHILD...

☐	45. Like to be close to the teacher (e.g., hug or touch the teacher, sit or stand next to teacher, etc.)?
☐	46. Have difficulty deciding what to do when given a choice between two or more things?
☐	47. Rush through his work and therefore make unnecessary mistakes?

DEVEREUX ELEMENTARY SCHOOL BEHAVIOR RATING SCALE*

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DESB PROFILE

Student's Name _____ Teacher's Name _____

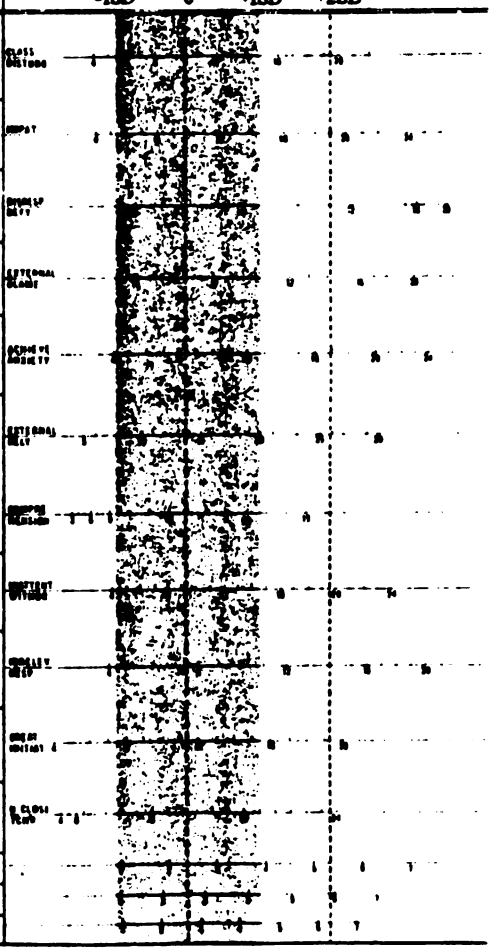
Student's Sex _____ Age _____ Academic Subject _____

Grade _____ School _____ Date of Rating _____

Behavior Factor	Factor Item Raw Scores	Tot'l Raw Sc.
1. Classroom Disturbance	needs control 11 ___ 13 ___ interfere noises 12 ___ 30 ___ drawn in	
2. Impatience	starts 1 ___ 44 ___ go back sleepy 36 ___ 47 ___ rushes	
3. Disrespect-Defiance	disrespect 5 ___ 9 ___ subject defy t'ch'r. 7 ___ 16 ___ rules	
4. External Blame	t'ch'r. help 2 ___ 34 ___ blames called on 25 ___ 38 ___ too hard	
5. Achievement Anxiety	test scores 22 ___ 31 ___ testing right answ. 23 ___ 33 ___ sensitive	
6. External Reliance	see others 24 ___ 42 ___ swayed rely t'ch'r. 29 ___ directions 32 ___ 46 ___ choices	
7. Comprehension	understands 10 ___ 37 ___ recites applies 35 ___	
8. Inattentive - Withdrawn	lose attn. 18 ___ 28 ___ oblivious not attnd. 20 ___ 43 ___ reachable	
9. Irrelevant - Responsiveness	exagg. story 14 ___ 17 ___ interrupt answers 15 ___ 26 ___ irrel. talk	
10. Creative Initiative	brings in 3 ___ 6 ___ start disr. act. imag. 4 ___ 21 ___ talk super	
11. Need Closeness to Teacher	seeks t'ch'r. 8 ___ 39 ___ friendly helps 19 ___ 45 ___ phys. close	
Additional Items	27 Unable change 40 Quits 41 Slow Work	

Raw Score in Standard Score Units

-1SD 0 +1SD +2SD



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مقياس د يغروكس لتقد ير السلوك في المرحلة الابتد ائية

اسم الطالب

الجنـــس　　العمـــر　　اسم المعلم (المعلمة)

الصـــف　　المد رسة　　معد ل علامات الطالبفي القراءة

عد د الاخوة والاخوات　　معد ل علامات الطالب في الحساب

ترتيبه او ترتيبها بين الاخوة والاخوات　　التاريخ . . . . . .

تعليمات خاصة بالاجـــــراء

١ . اعتمد في التقد ير على سلوك الطالب الحد يث والحالي . خذ بعين الاعتبار سلـوك الطالب لفترة الشهر الاخير .

٢ . قارن سلوك الطالب مع سلوك الطلبة العاد يين (المتوسطين) في نفس عمره .

٣ . اعتمد في التقد ير على خبرتك الشخصية مع الطالب . اعتمد على انطباعك الخاص قد ر الامكان وتجاهل انطباعات الاخرين وارائهم حول نفس الطالب .

٤ . خذ بعين الاعتبار كل سؤال على انفراد . لا تبذل جهدا في اعطاء صورة متكاملـة عن السلوك او الشخصية ، حيث ان الاطفال يمكن ان يظهروا سلوكات متناقضة احيانا .

٥ . تجنب تفسيراتك للد وافع والانفعالات الغير شعورية . اعتمد في التقد ير قد ر الامكـان على السلوك الظاهر الذى يمكنك ملاحظته ولا تحاول ان تفسر ما يمكن ان يجرى د اخل الطالب .

٦ . استخد م طرفي التقد ير كلما كان ذلك ضروريا . تجنب النزوع نحو الوسط في التقد ير حيث ان المقياس يعطيك مد ى واسعا للتقييم .

٧ . قد ر سلوك الطفل على كل فقرة وبسرعة . اما اذا كنت غير قاد ر على اتخاذ قرار فيمـا يتعلق بتلك الفقرة ، اترك هذه الفقرة وانتقل الى التي تليها ثم عد الى الفقرات التي كنت قد تركتها بعد انتهائك من التقد ير .

٨ . حاول الاجابة على كل فقرة في المقياس . اما اذا كنت غير قاد ر على تقد ير فقرة مـا لانها غير ملائمة للطفل او لنقص في معلوماتك حولها ، ضع د ائرة حول رقم تلك الفقرة .

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المطلوب منك تقدير السلوك الظاهر لدى الطالب ، استخدم في تقديرك لهذا السلوك المقياس المبين ادناه ، ضع الرقم المناسب (الذى ينطبق على سلوك الطالب) في المربع الى يمين كل فقـــرة .

ابدا	نادرا	احيانا	غالبا	غالبا جدا
١	٢	٣	٤	٥

مقارنة هذا الطفل بالطفل المتوسط في الصف العادى ، مامدى تكرار قيام الطفل بالسلوكات التاليـــة . . .

التقدير	الفقـــرة
☐	١ . يبدأ العمل قبل ان يحصل على التعليمات الصحيحة
☐	٢ . يقول ان المعلم لا يساعده المساعدة الكافية (لا يوضح كيفية القيام بالعمل ، او الاجابة على الاسئلة) .
☐	٣ . يحضر اشياء للصف لها علاقة بالموضوع الذى يدرسه (يجمع اشياء ، مقالات) .
☐	٤ . يحكى قصص ويصف اشياء بطريقة جذابة (عنده خيال نشط وواسع)
☐	٥ . يتحدث مع المعلم بدون احترام (مثال ذلك : ينادى المعلم باسمه ، يعامـــل المعلم بالمثل) .
☐	٦ . يبدأ النقاش في الصف (عنده روح المبادرة في النقاش)
☐	٧ . مشاكس (مثال ذلك : لا يقوم بما يطلب اليه) .
☐	٨ . يبحث عن المدرس قبل او بعد الصف ليتحدث عن المدرسة او عن امور شخصية .
☐	٩ . يقلل من قيمة او اهمية المواضيع التي يدرسها (مثال ذلك : الاملاء موضوع سخيف وتافه
☐	١٠ . يفهم ما يقرأ ويسمع في الصف
☐	١١ . يحتاج الى الضبط من قبل المدرس بسبب سلوكه في الصف .
☐	١٢ . يخبط او يدفع زملاءه صفـــه .

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☐ ١٣ . يزعج او يتدخل في عمل زملائه في الصف

☐ ١٤ . يحكي قصص مبالغ فيها وغير حقيقية

☐ ١٥ . يعطي اجابة ليس لها علاقة بالسؤال الموجه اليه .

☐ ١٦ . يخرج عن قوانين الصف (مثال ذلك : يرمي الاشياء ، يشحط على المقعد او على الكتب) .

☐ ١٧ . يقاطع المعلم اثناء كلامه .

☐ ١٨ . يتشتت انتباهه بسرعة عند ما يشرح المعلم شيئا له (يسرح بنظره خارج الصف ويصبح متململا) .

☐ ١٩ . يعرض خدماته على المدرس (مثال ذلك : مسح اللوح ، فتح الباب) .

☐ ٢٠ . يجعلك تشك في هل هو منتبه لما تعمل او تقول (مثال ذلك : ينظر الى مكان اخر ، يحملق او ينظر بعيدا (يسرح)) .

☐ ٢١ . يشارك في المناقشات الصفية بما لديه من خبرات شخصية لها علاقة بالموضوع .

☐ ٢٢ . يتأثر كثيرا فيما يتعلق بعلاماته على الاختبارات (مثال ذلك : ممكن ان يبكي او ينزعج انفعاليا) .

☐ ٢٣ . يظهر قلقا في محاولته معرفة الاجابات الصحيحة .

☐ ٢٤ . ينظر حوله ليرى كيف يعمل الاخرين قبل ان يبدأ عمله (مثال ذلك عندما يعطي المدرس تعليماته) .

☐ ٢٥ . يشكو من ان المدرس لا ينادي اسمه (مثال ذلك : ان المدرس دائما ينادي على الاخرين اولا) .

☐ ٢٦ . يعلق تعليقات لاعلاقة لها بالموضوع خلال المناقشة الصفية .

اما بالنسبة للفقرات من ٢٧ - ٤٧ استخدم مقياس التقدير التالي . . .

ابدا	قليلا جدا	قليلا	متوسط	اكثر من المتوسط	كثيرا	كثيرا جدا
١	٢	٣	٤	٥	٦	٧

مقارنة هذا الطفل بالطفل المتوسط في الصف العادي ، ما درجة تواجد هذه الصفات (السلوكات) عند الطفل . . .

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☐ ٢٧ . غير قادر على التغيير من مهمة الى اخرى حين يطلب منه ذلك (مثال ذلك : يجد صعوبة في بداية مهمة جديدة) يشعر بالضيق ويفقد قدرته على التنظيم) .

☐ ٢٨ . غير واعي لما يجرى في الصف (مثال ذلك : يظهروكأنه دائما في عالمه الخاص المغلق) .

☐ ٢٩ . يعتمد على المدرس فيما يتعلق بالتعليمات وكيفية اداء الاشياء .

☐ ٣٠ . من السهل عليه ان ينشغل او ان ينجر في حديث الاخرين او ما يصدر عنهم من ضجيج ،(مثال ذلك : يقف عن العمل ليتسمع لهم او يشاركهم) .

☐ ٣١ . يبدو عصبيا جدا عند اعطائه الفحص (الاختبار) .

☐ ٣٢ . غير قادر على اتباع التعليمات المعطى في الصف (مثال ذلك : يحتاج الى تعليمات اكثر دقة ليستطيع مواصلة العمل بنجاح) .

☐ ٣٣ . حساس للنقد او لمحاولات تصحيح اخطاء في اعماله المدرسية .

☐ ٣٤ . ينزع الى لوم المعلم ، الاختبار او الظروف الخارجية عندما لا تجرى الامور على مايرام .

☐ ٣٥ . قادر على تطبيق ما تعلمه الى مواقف جديدة .

☐ ٣٦ . فوضوى في عمله المدرسي (مثال ذلك : كتبه المدرسية قذرة وغير مرتبة) .

☐ ٣٧ . على الاغلب ان يكون عارفا بمادته حين يطلب منه التسميع في الصف .

☐ ٣٨ . يستصعب جدا القيام بأية مهمة مدرسية تطلب منه (كأن يقول " انت تتوقع الكثير، انا لا استطيع القيام بها") .

☐ ٣٩ . علاقته جيدة مع المدرس في الصف (ودود ومستجيب) .

☐ ٤٠ . على الاغلب ان يتوقف او يستسلم حين يكون الشيء المطلوب منه صعبا او يتطلب جهدا اكبر من الجهد العادي .

☐ ٤١ . بطيء في اتمام عمله (مثال ذلك : انه يحتاج الى وقت اضافي) .

☐ ٤٢ . يأخذ بآراء زملائه (يتبع زملائه) .

☐ ٤٣ . من الصعب ان تخرجه من عزلته (مثال ذلك : افكاره الخاصة مسيطرة عليه لهذا يجب مناداته بالاسم لتحقيق ذلك) .

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☐ ٤٤ . لا يحب مراجعة عملـــه .

مقارنة هذا الطفل بالطفل المتوسط في الصف العادى ، الى اى درجة . . .

☐ ٤٥ . يحب التقرب من المعلم (مثال ذلك : المعانقة ، اللمس ، الجلوس ، او الوقوف بجانب المعلم) .

☐ ٤٦ . يعاني من صعوبة الاختيار بين شيئين او اكثر (اتخاذ قرار)

☐ ٤٧ . يتسرع في العمل لذا فانه يرتكب اخطاء لاضرورة لها .