



This is to certify that the
thesis entitled

PARENTS' PERCEPTIONS OF
ACADEMIC ACHIEVEMENT OF BOYS
DESIGNATED LEARNING DISABLED

presented by

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has been accepted towards fulfillment

of the requirements for

Doctor of
Philosophy degree in Elementary and
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A handwritten signature in cursive script, reading "Frank B. Bruno".

Major professor

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ABSTRACT

PARENTS' PERCEPTIONS OF ACADEMIC ACHIEVEMENT OF BOYS DESIGNATED LEARNING DISABLED

By

Wells J. Longshore

Summary

One of the primary ingredients for most successful school programs is effective communication between teachers and parents. Most teacher training institutions recognize the need for teachers to develop this competency in relating to parents. A difficulty in all types of interpersonal relationships is the different attitudes and expectations of the people involved due to different perceptual worlds. Good communication depends on clear messages and mutual agreement on goals. In teacher-parent contacts regarding a child's academic achievement, it is important that teacher, parent, and child agree on academic goals based on present level of achievement. Teachers usually begin planning a child's academic program by using formal and informal tests and methods of assessment. In conferencing with parents it is helpful to know how accurately parents understand their child's present level of academic skill

development. In teacher-parent conferences, the teacher often needs to explain to the parents the school curriculum and their child's progress.

The question has been raised concerning how accurate, or realistic, parents are regarding their children's social and academic development. Several research studies have investigated this question using different populations and different research methods. General research findings indicate that parents tend to make their children more normal than they really are. High achieving children have usually been underrated by their parents and low achieving children have been overrated by their parents. Mothers of exceptional children seem to overrate their children more than any other group of parents. Parents seem to be more accurate in rating present achievement than future achievement. It is not clear if the social class of the parents, or the sex, age, or degree of handicap of the child are significantly related to the accuracy of parents' estimates.

The present study adds to existing research (1) by exploring parental estimates of the achievement status of boys designated as "learning disabled," a group not previously studied; (2) by utilizing an achievement test - the Peabody Individual Achievement Test - that may be teacher administered and that is coming into wide use; and (3) by using an item-by-item parental judgment to generate "parental" test scores rather than asking parents for global estimates of achievement.

Fifty middle class families from suburban and rural areas of Michigan agreed to participate in the study after being contacted by their child's teacher, principal or psychologist. Twenty-five of the children were presumably normal boys in regular classes (ages 8 - 13 years), and 25 were boys of the same age designated learning disabled by State of Michigan Special Education guidelines. Both parents had to agree to participate. The boys were administered the Peabody Individual Achievement Test (PIAT) at their school. The parents were seen individually at school or home and asked to estimate how they thought their child would score on each item of the test. Standard scoring procedures were followed. Total test raw scores and grade equivalents were compared for children and their parents, and for parents of regular class children and children designated learning disabled.

Conclusions

1. Contrary to most previous research, and to the first two hypotheses of this study, there was no consistent tendency for mothers and fathers of boys in regular classes to underestimate their sons' present level of academic achievement. It was expected that these parents would tend to significantly underestimate their sons' academic achievement. The results showed mothers to have a mean overestimate of four months, and fathers to have a mean overestimate of five months (grade level equivalent). Neither of these overestimates was statistically significant.

2. In agreement with most previous research, mothers of boys designated learning disabled did, on the average, overestimate their son's academic achievement by about three months; however, this was not statistically significant and, therefore, did not support the hypothesis of this paper.
3. In agreement with previous similar studies and hypothesis IV of this study, fathers of boys designated learning disabled were more accurate in their estimates than other parents. Results of the present study showed these fathers to underestimate by less than one month. Fathers of these boys were significantly more accurate when compared to all other parents taken as a group.
4. As expected, there was a trend for the discrepancy between the estimates of mothers and fathers of boys designated learning disabled to be greater than the discrepancy between mothers and fathers of boys in regular classes. Again, no consistent pattern of underestimates or overestimates was found. The difference between a mean of 3.3 months and a mean of 1.1 months was not statistically significant, however.
5. Reading comprehension was the one area where a significant difference was found between the relative accuracy of groups of parents, with fathers of boys designated learning disabled being significantly more accurate than any other group.
6. As a total group, the scores of the majority of parents were within one grade equivalent of the score obtained by their child. While the occasional parent deviated widely from accuracy in assessing his child's achievement status, it was concluded that most of these parents were reasonably accurate in understanding their child's current achievement level.

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By

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This dissertation is dedicated to
my wife, Myrl, and my daughter, Jennifer,
with my love and appreciation.

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CHAPTER I

INTRODUCTION

Background

One of the primary ingredients for most successful school programs is effective communication between teachers and parents. Good communication is the basis for a teacher-parent partnership which leads to an understanding of the attitudes and expectations of each other regarding the child's school progress (Barsch, 1969). Teachers can learn a great deal from parents about the child's long term development at home, and parents can learn much from teachers about the child's development at school (Chilman, 1971). Many authors stress this need for clear communication between teachers and parents. Competency in communication skills and interpersonal relationships is a key element in many teacher training programs. Robert Carkhuff (1969, 1973) has shown that teachers can become helping persons when working with parents if they are given appropriate training by effective trainers. Haim Ginott (1972) gives many suggestions for teachers in planning teacher-parent conferences such as the importance of a private and

comfortable meeting place, giving the parent one's undivided attention, and accepting the parent's feelings. Tom Gordon (1974) explains how teachers can use the skills of active listening and "I" messages to improve communication with parents.

In regard to communicating with parents of exceptional children, Roger Kroth (1975) stresses the need to compare teacher and parent perceptions of the child's behavior. He suggests behavioral techniques such as the Q-Sort, target behavior, and reinforcement techniques for problem solving with parents.

Teachers realize that children's learning problems often effect all members of the family. They seek to have both parents become involved in planning programs for the child. They view the family as a system and can help to improve communication between mother and father, and between parents and child. The importance of understanding and communication between husbands and wives regarding their child's learning problems has been emphasized by Ross (1964) and Friedman (1973). Ross discusses family dynamics in psychoanalytical terms such as guilt, anxiety, and unconscious motivation. Friedman suggests that parents be asked to clearly state their expectations for their child. In regard to achievement expectation, he found some parents to be markedly inappropriate (Friedman, 1973).

The importance of studying the family as a social system has long been recognized by many family clinics such as the Mental Research Institute of Palo Alto, California founded by Donald Jackson, Virginia Satir and others (Jackson, 1968). These writers emphasize that problems effect all members of the family and effective helpers are aware of the interaction among family members. In regard to school learning disturbance, the need for clear communication within the family is outlined by Strickler (1969).

The Problem

The primary problem in all types of communication is the different perceptual perspectives of the people communicating. Every individual views life through his own perceptual world. Effective communicators try to see problems from the other person's perspective.

Teachers and parents often have different expectations regarding the child's school progress. This is particularly true, perhaps, when the child is suffering from some type of handicap. The literature of special education is replete with discussions of the failure of parents of handicapped children to accept realistically their child's academic limitations. Typically, the parent of a child labeled mentally retarded or learning disabled will complain

that the teacher underestimates the child's ability, and conversely, the teacher feels that the parent has unrealistic expectations for the child's academic achievement.

It has also been widely held that a handicapped child frequently creates tension and discord between the parents. The mother and father may seriously disagree in their perceptions of, and strategies for managing, the child.

These factors have led to a small body of research which seeks to objectively measure parental expectations. Characteristically, these studies, to be reviewed below, have compared the child's score on an ability or achievement measure with some type of parental estimate of the child's status. Most frequently, parents have been asked to estimate the child's mental age or IQ, which is then compared to the child's obtained score on an intelligence test.

Few studies have attempted to secure parental estimates of achievement on a widely used achievement test. Achievement, rather than general ability as measured by an intelligence test, would seem to be the most relevant area of investigation, since it is with the child's school achievement that parent and teacher communication is primarily concerned. The present study explores parent-child and parent-parent discrepancies on the Peabody Individual Achievement Test, a widely used achievement test.

Second, previous studies have rarely sought to secure parental judgments on the specific skills required by a particular test. It may well be that if a parent is asked, item by item, whether his child can pass the item, the total score estimate so generated will differ significantly from a global estimate such as a mental age or an achievement grade level. This item by item method was used in the present study on the assumption that such a procedure will give a truer estimate of the parent's perception of the child's achievement status than does a global estimate.

Finally, no studies were found involving children categorized as learning disabled and their parents. Since the learning disability category is currently the fastest growing area of special education, it was selected for study in the present investigation.

Purpose of the Study

The purpose of the present study, therefore, is to assess the accuracy with which the parents of boys designated as learning disabled can estimate their child's achievement on a widely used achievement test. As a framework for evaluating the responses of parents of learning disabled boys, they are compared with a group of parents of boys not so designated, and presumably normal in school achievement.

The study is limited to boys, only because of the relative inavailability of girls designated as learning disabled. A major focus of the study is on comparisons of the perceptions of mothers and fathers.

Definition of Terms

The term "Learning Disabled" will be used to refer to the group of boys designated as learning disabled by criteria described in Chapter III, and to the parents of these boys. The comparison group of boys, not designated learning disabled, and their parents will be referred to by the label "Regular Class."

The term "level of academic achievement," when referring to a boy's score, refers to his total score on the PIAT. When this term is applied to the parents, it refers to the total PIAT score created by the parent's item by item judgment as to whether the child would have passed the item. The parent has taken the test "as if" he were the child. Thus, when the parent is described as "estimating" the child's score, this term refers to this derived parental score and is not an estimate in the usual sense in which this term is used.

Hypotheses to be Tested

Based on previous research studies reviewed in Chapter II, five hypotheses will be tested.

- I. Mothers of boys in regular classes not designated learning disabled will underestimate their son's present level of academic achievement.
- II. Fathers of boys in regular classes not designated learning disabled will underestimate their son's present level of academic achievement.
- III. Mothers of boys designated learning disabled will overestimate their son's present level of academic achievement.
- IV. Fathers of boys designated learning disabled will accurately estimate their son's present level of academic achievement.
- V. The discrepancy between the mean PIAT raw scores of mothers and fathers of boys designated learning disabled will be significantly greater than the discrepancy between mothers and fathers of boys not designated learning disabled.

This hypothesis follows from the first four hypotheses which predict that both mothers and fathers of boys not designated learning disabled will underestimate while mothers of boys designated learning disabled will overestimate and fathers of boys designated learning disabled will be accurate.

Significance of the Study

The intent of this study is to provide some objective evidence as to the validity of commonly held beliefs regarding the distorted perceptions of parents of handicapped children. Assuming that teachers and other professionals who have worked with parents of handicapped children have

correctly observed that many parents "expect too much," and thus apparently overestimate their child's capabilities, there may still be several explanations for what is determining this parental behavior. The parents' wishes may father their perceptions, so that they actually perceive the child as capable. If this is true, then if one were to secure from parents the item by item judgments of the child's performance as required in the present study, the parent would see the child as capable of specific performances of which the child is not capable.

On the other hand, the parent may see clearly what specific things the child can and cannot do, but does not accept this state of affairs as representing the child's "true," or potential, capabilities. If this is the state of affairs, the teacher might still evaluate the parent as overestimating the child's ability, since the parent would be under internal pressure to push the teacher to hold higher expectancies for the child than the teacher feels appropriate.

It is reasonable to assume that these alternate explanations of the parental dynamics would require different approaches to the parent. This study should provide some data as to the relative validity of these two possible explanations.

A second value of the study derives from a comparison of the discrepancies between parents of learning disabled children in estimating their child's performance as compared to the discrepancies among parents of children

without major school learning problems. Are the mothers and fathers of learning disabled children far apart? Or, has the disability caused them to attend more closely to their child's performance? Findings in this regard should correct or confirm the stereotypic notion that parents of such children deviate from the norm in their extent of disagreement.

Children categorized as learning disabled, while falling at present as a responsibility of special education, differ, of course, from other groups of handicapped children. Perhaps, most important, they are not as readily perceived as handicapped; there are generally no visible manifestations of the disability that make them socially identifiable as handicapped. Generalizations based on other handicapping conditions may not apply to them. The results of this study will make possible some evaluation of such generalizations as they apply to this disability category.

It is also of importance that the present study deals with a public school population. Previous studies have frequently secured subjects through clinics. Obviously, a population so identified is a biased sample, which may well be unrepresentative of the typical family of a learning disabled child.

This study includes only white, middle class families and caution should be taken when applying the results to families of other cultural backgrounds.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This chapter includes a review of 15 previous research studies related to the present investigation. Primary emphasis is given to those studies that compare parents' estimates of the present academic functioning level of their child to the child's actual score on some standardized test instrument. The contributions and limitations of each study are analyzed in light of the purpose of the present study. Special attention is given to the types of children and parents studied, and the instruments and procedures used. Conclusions from these studies are summarized at the end of this chapter.

Studies are presented according to the type of children and parents investigated. Under this division, studies of parents of children in regular classes are reviewed, followed by studies of parents of retarded children, and finally, studies of parents of physically handicapped children.

Parents' Perceptions of Children in Regular Classes

Two studies report the accuracy of parental estimates of the IQ's of boys in regular classes. Cotler and Shoemaker (1969) found mothers of boys in regular classes to underestimate their son's IQ by an average of 15.78 points with mothers of high achieving boys consistently underestimating performance and mothers of low achieving boys consistently overestimating performance. Most of the boys in this sample were high achievers. This team of researchers from Southern Illinois University selected 40 boys (ages 7 to 13 years) and their mothers from the University School in Carbondale, Illinois. The subjects for this study were middle and upper-middle class and volunteered to participate. For the IQ estimate, they used only the Block Design performance test from the WISC and compared the mothers' estimates with the child's actual score. The testing procedure took place in the homes of the subjects. The mothers observed their sons complete each of the seven items on the Block Design subtest of the WISC. The mothers then rated their child's performance in percentiles compared to how the mothers thought their child would score compared to other boys of the same age. These percentiles were converted to IQ scores and compared to the child's actual IQ score for that one test. Discrepancy scores between mothers' estimates and child's actual score were compared. The discrepancies between the

boys' IQ's and the mothers' predicted IQ ranged from -17 to +53, with an average discrepancy showing mothers to underestimate by 15.78 points. The mothers' range of scores (82 - 125) were significantly smaller than the boys actual scores (65 - 156). The authors claim that this agrees with previous research that shows that parents tend to rate their children more average than they really are with high achievers being underrated and low achievers overrated.

Boerger (1970) sent a questionnaire to 950 parents of fifth and sixth grade boys in a middle class suburban school district asking them, among other things, to estimate their son's IQ. The social class of these parents is similar to those studied by Cotler and Shoemaker. Boerger also studied only boys, however, he included both parents in his study. Boerger compared the parents' estimates with the boys' scores on group intelligence tests. The writer could not obtain this study to determine how the parents made their estimates or what group IQ tests were used. Cotler and Shoemaker used an individual IQ test and spoke with the parents directly. Of the approximately 650 responses, Boerger found that parents tended to underestimate their son's IQ, with low achievers being overestimated and high achievers being underestimated. This agrees with the findings of Cotler and Shoemaker. Boerger does not mention differences between the estimates of mothers and fathers.

Parents' Perceptions of Retarded Children

Eight related studies have been conducted with the parents of retarded children. Four of these studies have found parents to be generally accurate in their estimates of their child's present academic development. Four studies found parents to overestimate their child's present, or future, development. Two studies concerned with parents' estimates and social class, but not parents' accuracy, are also mentioned.

Ewert and Green (1957) interviewed the mothers of 100 retarded children (60 boys and 40 girls, ages 1 to 14 years). The mothers were from all social classes. The childrens' IQ's ranged from 7 to 69 with a mean IQ of 44.1. Fifty of these children had no known contributing physical condition, while the remaining fifty were found to have some major physical abnormality. The mothers were asked to estimate the age most compatible with her child's present behavior. The mother's estimated age of the child's current functioning level was used as a mental age in determining an estimated IQ score. These estimates were compared to the child's score on the Vineland, Cattell, Stanford-Binet, or WISC. These researchers at the Mayo Clinic, Rochester, Minnesota, found the mothers to accurately rate 65 of the 100 children. By "accurately" they indicated that the mother's estimate did not vary more than 15 points

from the child's actual IQ score. The range of estimated IQ scores was from 8 to 100 with a mean estimated IQ of 58 and a standard deviation of 20.1. The childrens' actual scores ranged from 7 to 69 with a mean of 44.1 and a standard deviation of 14.7. These authors found mothers to be slightly, but not significantly, more accurate in estimating the IQ of boys than of girls. They found no significant difference in the accuracy of mothers from different social classes. Ewert and Green reported that children with physical impairments were rated as accurately as children with no physical impairments. The authors, clinical psychologists, are concerned with the accuracy of parents' ratings and add that they are not suggesting accuracy implies acceptance or rejection as these terms are used in psychiatric practice (p. 521).

Schulman and Stern (1959) of Johns Hopkins Hospital, Baltimore, Maryland agree with the findings of Ewert and Green. Their investigation involved parents of 50 retarded children ages 3 - 12 (24 boys and 26 girls). The social class of the parents is not mentioned. The children's IQ's ranged from 17 to 82 with a mean of 55.5. Information was obtained in only seven cases from both parents, in 36 cases from the mother alone, four cases from the father alone, and one case each from an aunt, a grandmother, and a sister. The parents were asked to estimate their child's developmental age which was converted to an IQ and compared to the child's score on the Stanford-Binet, Gesell Develop-

mental Scale, or the Vineland. The average deviation between parental estimate and the child's score was 9.9 points which was not a significant difference. The average IQ estimated by parents was 57.2 with a range of 17 to 100 and a standard deviation (SD) of 17.4, the child's actual scores were 17 to 82 with a mean of 55.5 and a SD of 16.6. In 23 cases, parents overestimated by 12.6 IQ points, in 19 cases underestimated by 10.7, eight cases exact.

In the entire 50 cases there were only 4 instances where the parents' estimate exceeded the test IQ by more than 20 points and 7 instances where the parents' estimate exceeded the test IQ by more than 15 points. In only 1 case did the parents estimate that their child's mental abilities were normal (p. 698).

Schulman and Stern admit that the tests employed are not completely comparable with each other. Their method of a global estimate of level of development is similar to Ewert and Green. Schulman and Stern do not mention differences between the accuracy of mothers and fathers or relationships between the accuracy of estimates and the sex of the child.

Some of the most extensive research into parental estimates of retarded children has been done by Kurtz (1965) and Wolfensberger and Kurtz (1971). In the report published in 1965, Kurtz compared 115 parental estimates of the functioning level of their retarded child to the professional judgments of psychologists, speech pathologists, and pediatricians. No mention is made of the social

class of the parents. Parents are not separated into mothers and fathers. The children range in age from 1 to 12 years. They are not divided into boys and girls. Kurtz found parents' estimates correlated .74 with the child's score on an IQ test. The name of the IQ test is not mentioned. Parents' estimates ranged from 20 to 140 with a mean of 64.4, the children's actual scores ranged from 15 to 100 with a mean of 58.1. Sixty-two of 115 parents estimated their child's IQ within 15 points. He does add that there is a tendency for parents to over-estimate their child's intellectual functioning.

In a lengthy report published in Genetic Psychology Monographs, Wolfensberger and Kurtz (1971) present a very involved study of parental perceptions of their children's development. They considered numerous variables in their study of 190 parents of 117 children seen at an evaluation center for developmentally retarded children. Parents were from all social classes. In 73 cases, they had the estimates of both mother and father. Among other things, they had parents estimate their child's present IQ, present achievement level, and future achievement level. They found both mothers and fathers to be very accurate when estimating IQ and present academic achievement, but very "unrealistic" when predicting future achievement. They compared parental estimates of present achievement-grade level to the child's actual score on the Wide Range

Achievement Test (Jastak and Jastak, 1965). Parents were asked to estimate their child's achievement in three areas: reading, spelling and arithmetic. The parents chose a grade level equivalent for each of those areas: e.g., 2.6 for second grade - sixth month achievement level. It is not mentioned if the parents saw any of the test items on the WRAT. This is the only study found that used an achievement test to compare parents and children. They found no significant difference between mothers and fathers when evaluating either boys or girls. They found a correlation between parent-estimate and child's actual score to be .92 for reading, .68 for spelling, and .77 for arithmetic. These writers conclude that parents of upper social classes are more accurate than parents of lower classes. This does not agree with Ewert and Green who found no differences according to social class. Wolfensberger and Kurtz make an important distinction between the accuracy of parents' estimates of present achievement, and estimates of future achievement. Several studies were found that asked parents to predict future achievement. These studies all found parents to over predict compared to professionals using test scores and professional judgment. The present study is concerned only with the accuracy of parents' estimates of present achievement.

In contrast to these four studies which found parents of retarded children to be accurate in their estimates, four other research efforts found parents to overestimate their child's functioning.

G. H. Zuk (1959) writing the Journal of Consulting Psychology, conducted research at the Mental Retardation Clinic at St. Christopher's Hospital in Philadelphia. Zuk compared parents' estimates on the Vineland Social Maturity Scale to the estimates by teachers and psychologists. He does not mention social class. He studied the parents of 145 non-physically handicapped children who were retarded, and the parents of 22 retarded and physically handicapped children. The children's IQ's ranged from 10 - 92 with a median of 48. They note that several children had "dull normal" IQ's but functioned at a retarded level. He found that parents (he doesn't distinguish mothers and fathers) consistently rated the abilities of their children higher than "relatively objective observers" (p. 174). Parents' overestimations ranged from +4 to +58 points with a median overestimate of +40 points. Zuk found parents of multi-handicapped children to be more accurate than parents of less handicapped children. Ewert and Green had found no difference in the accuracy of the estimates of parents of more severely handicapped children and the accuracy of parents of less handicapped children. Zuk considers overestimation to be due to a positive bias (labeled an autistic distortion) which is consistent with the Freudian notion of unconscious wish fulfillment (p. 176).

Jensen and Kogan (1962) questioned 110 parents (65 mothers and 45 fathers) of 68 retarded and/or physically handicapped children to estimate their child's future

achievement in academic and social areas. The social class of the parents is not mentioned. Children were 4 to 6 years of age with IQ's in the retarded and normal ranges. Discrepancy between staff and parent ratings was the unit of measurement used. They found both parents to overestimate future achievement. The mothers' average rating was 101.12 and the fathers' average rating was 100.86; the correlation coefficient of the ratings of both parents was .586. The average staff rating for these 42 cases, in which both parents participated, was 85.67; the differences between the mean staff scores and the mean scores for either parent are significant at the .05 level. Parents of children both retarded and physically handicapped overrated their children by a greater degree than parents of children less handicapped. These findings are the opposite of Zuk who found parents of multi-handicapped children to be more accurate (realistic) than parents of less handicapped children. Ewert and Green (1957) found no differences between parents of multi-handicapped and non multi-handicapped children.

The second study that reported parents of retarded children to overrate their children was done by school psychologists R. J. Capobianco and Stanley Knox (1964). Writing in the American Journal of Mental Deficiency, these researchers add several interesting findings to previous studies. They spoke with 66 parents (27 couples). The parents for this study were obtained by appealing to

organized parents groups whose members are probably more sophisticated in matters pertaining to mental retardation than parents attending an out-patient clinic or similar agency. The parents were middle class. The children were 5 to 17 years old with IQ's of 30 to 84. They are not separated into boys and girls. The authors had the parents answer each item on a modified version of the Stanford-Binet Form L instead of using the more global estimates of mental age used by earlier investigators (Ewert and Green, 1957 and Schulman and Stern, 1959). They separated the estimates of mothers and fathers and found mothers to overrate their children while fathers were accurate. The mothers' mean estimate was 67.7, the fathers' 61.7, and the children's mean IQ was 61.1. The mothers' estimates are significantly different from the children's scores and from the fathers' estimate at the .05 level.

The third study of parents of retarded children and the one most similar to the procedure used in the present study was conducted by Gorelick and Sandhu (1967) with families in Los Angeles. The sample consisted of 25 mothers and their retarded children (14 boys and 11 girls) ranging in age from 3 to 15 years. Social class of the mothers is not mentioned. The revised Stanford-Binet was employed for both parent and child. The examiner proceeded the administration of the Binet to the mother with an explanation that she was to answer the questions and perform the

required tasks in the exact manner she thought her child would respond. The test was administered and scored according to standardized procedures.

The children's actual IQ scores (CIQ) ranged between 27 and 82, with a mean of 51.8. The parents' perceived IQ scores (PIQ) ranged from 24 to 126, with a mean of 58.7. A t test performed to test the significance of the differences between the two sets of scores ($t = 1.76$, $p < .05$) one-tailed test. The average of the difference between CIQ and PIQ scores was +6.92 points, confirming the hypothesis that the parents in this sample tended to overestimate their children's ability to perform items on a standardized intelligence test (p. 383).

The authors claim the value of the procedure used in this study can be seen when counseling with the parents and comparing their protocol with that of their child. This provided useful information regarding the areas in which parents tended to be most accurate, or inaccurate, and was valuable in setting appropriate goals with these parents. They recommended that future researchers explore the worth of administering the test to both parents to expose differences between mothers and fathers in their perceptions of their child.

The fourth study reporting parents of retarded children to overestimate their child's IQ was done at Johns Hopkins Hospital by Heriot and Schmickel (1967). They report that mothers of 65 children evaluated at the Diagnostic and Evaluation Center for Handicapped Children slightly, but significantly overestimated their child's full scale IQ. The 65 mothers from all social classes estimated the

developmental level of their child. The children ranged from 1 to 14 years with full scale IQ's ranging from 30 - 132 with a mean of 77. There were 44 boys and 24 girls of which 54 were white and 11 Black. The mothers' estimates were given in years (not years and months as in some studies) and converted into an IQ which was compared to the child's actual score on the Vineland, and either the WISC, Stanford-Binet, or the Cattell Infant Test of Intelligence. The average maternal estimate was 80.54 compared to the children's mean full scale IQ of 77.32 and mean Vineland Quotient of 80.79.

"The difference of 3.22 between full-scale IQ and maternal estimate was significant with a P greater than 0.98 (two-tailed t test). The 0.25 difference between the mean Vineland Quotient and maternal estimate was not significant ($P < .95$)."
(pp. 921, 922)

They found no significant relationship between accuracy of maternal estimate and mothers' social class, child's sex or race.

Another study of parental estimates of retarded children was done by Iano (1970). Iano compared the estimates of parents of different social classes. He did not, however, compare these estimates with an actual score by the children and, therefore, is not concerned with accuracy of parental estimates which is the main focus of the present investigation. Iano is one of the only researchers who contacted his families through public school systems rather than relying on parents who sought assistance

from various clinics and agencies. He claims that those who seek assistance probably have judged their child to be a problem while parents who do not seek assistance might not consider their child to be a problem and, therefore, these parents would have automatically been excluded from most studies and reports (p. 62). Capobianco and Knox (1964) asked for volunteers through parent organizations in order to reach more parents than might be available through a clinic. Iano personally contacted 212 parents of 106 educable mentally retarded children (ages 9 to 14 years, IQ's 50 - 80), from ten public school systems in upstate New York. He selected only those parents who were both living in the home and both agreed to be interviewed. It is amazing that he was able to get the cooperation of so many parents. He saw these parents in their homes and had them complete a Rating of the Child Questionnaire (RCQ) which he developed for his study. The RCQ was used to elicit parents' estimates of the child's intellectual, independence, and social abilities. His results showed that parents' social class was significantly related to parent evaluation of their child. He states that his results indicate that parents in higher social classes were generally lower in their evaluations than were parents of lower social classes.

A similar study by Touliatos and Lindholm (1974) shows that mothers of children diagnosed as minimally brain-injured rated their children lower than mothers of normal

children. These authors, however, also do not state which group of parents were more accurate which is the principal focus of the present study.

Parents' Perceptions of Physically Handicapped Children

Three studies of the parents of handicapped children all show parents to overestimate their child's present or future level of functioning.

Barclay and Vaught (1964) used a technique similar to Jensen and Kogan (1962) and asked mothers of 40 cerebral palsied children to predict their child's future educational, vocational, and social functioning. The social class of the mothers is not mentioned. The 40 children of all IQ levels were 25 boys and 15 girls. Ages are not given other than 20 were under 6 years and 20 over 6 years. These clinical psychologists compared the mothers' estimates to their own estimates of future achievement based on the child's score on the Stanford-Binet, Form L-M, and the Vineland Social Maturity Scale.

The average mother's rating was 97.40, with the highest possible rating being 140, while the average investigator's rating, based on test performance, was 58.92; the difference between the two mean ratings ($t:8.44$; $df\ 39$; $p < .01$) was significant ($p. .63$).

In contrast to Ewert and Green (1957), they found no significant difference between the mothers' estimates of boys and girls.

As Wolfensberger and Kurtz (1971) point out, it is important to note that the studies of Jensen and Kogan, and Barclay and Vaught both ask parents to predict future achievement. This might reflect the hopes of parents even though they might be accurate in assessing present level of development.

Keith and Markie (1969) compared the estimates of present and future performance by parents and professionals. They do not mention the social class of the 17 mothers and 11 fathers who participated in the project. The children were 1 to 5 years old of all IQ levels. The sex of the children is not reported. They asked the parents of these cerebral palsied, nursery school children and a pediatrician, teacher, physical therapist, and occupational therapist to rate the child's independent behavior. The instrument used was the Age Independent Scale, which consists "of 75 items of behavior taken from developmental schedules, intelligence tests, the Vineland Social Maturity Scale or texts on child development, or derived from experience with children. Included are motor, cognitive, social and self-care behaviors from infancy up to primary school level" (p. 737). They found both mothers and fathers to rate the children significantly higher than the professional staff on both present and future achievement. The mean number of tasks that parents said their child could perform at present was 32.26 compared to the professionals' estimate of 27.93. Although these differences

are significant, the authors add that these differences are somewhat misleading since the parents of only ten of the 17 children overestimated present functioning in relation to judgments of professionals. In regard to future achievement, the mean age at which parents estimated their child would perform the tasks specified was 5.00 and the staff 5.74. This study, and Wolfensberger and Kurtz, are the only two found that ask parents to estimate both present and future achievement. Both studies found parents to overestimate future achievement. Wolfensberger and Kurtz, however, found parents to be accurate on present achievement.

The most recent study of parents of physically handicapped children was done by Tew, Laurence, and Samuel in South Wales (1974). The parents were from all social classes. The children, 33 boys and 24 girls, were 9 to 15 years old with a mean IQ of 84. The parents estimated the mental age of the child in years and months. They found the parents of 57 children with spina bifida cystica to overestimate their child's WISC IQ by slightly less than nine IQ points. Thirty-nine parents overestimated the scores by an average of 17.82 points, and 18 parents underestimated scores by an average of 10.94 points. They found a significant difference between parents' estimate of boys and girls. The mean parental IQ estimate for boys was 93.52 (SD 12.46) and the boys actual mean was 91.52 (SD 17.72). For girls, the mean parental

estimate was 91.33 (SD 21.31) and girls' actual mean was 73.04 (SD 23.07). This agrees with Ewert and Green (1957). They do not report separate results for mothers and fathers. They report that higher social class parents had lower estimates of their child than working class parents, but the number of cases was so small that no reliable conclusions could be drawn. Wolfensberger and Kurtz found higher classes to be more accurate.

Conclusions from Previous Research and Need for Present Study

It is difficult to summarize the findings of these research studies because of the different populations studied, the various instruments used, and the different ways in which parents were asked to "estimate" the child's performance. Nevertheless, some general conclusions can be stated. Most studies found that parents tend to rate their children as more normal than they actually are. Parents tend to underrate high achieving children and overrate low achieving children.

Mothers of both normal children and exceptional children tend to overrate their children more than fathers.

Parents seem to be more accurate in rating present achievement than in predicting future achievement.

It is not clear if the social class of parents or the sex, age, or degree of handicap of child are significantly related to the accuracy of parental estimates.

There is some evidence to indicate that the method of asking parents to estimate their child's functioning is significant in determining the parents' accuracy. Most studies used a global estimate of mental age or developmental level. Two studies claim their results are more accurate because the parents went through each item of the same test that was given to the child.

CHAPTER III

METHODOLOGY

Subjects

Selection of the Learning Disability Group

It was initially intended to develop a pool of Learning Disability boys and their parents who would meet certain criteria and, from this population of families, to draw a random sample. The criteria established for inclusion of a family were the following:

1. The boy had been designated as learning disabled by State of Michigan rules (P.A. 198, 1971 - Appendix A).
2. The child had been born between September 1962 and December 1966 so that they were between 8.5 years and 13.5 years of age at the time of the study.
3. The boy was in grade 3, 4, 5 or 6 at the time of the study.
4. The natural parents were both in the home, or if a step-parent was present, the step-parent had been living in the home for at least one year.
5. The families were white and of middle socio-economic status.

The definition of learning disabled varies slightly from state to state. The State of Michigan, like 27 other states, uses the federal definition, as found in

PL 91-320, the Elementary and Secondary Educational Amendments of 1969, with additional components (Gillespie, Miller, and Fielder, 1975). This definition is rather broad and includes children with various learning difficulties. It was not possible to control for the various types or degrees of learning disabilities covered by the definition. All of the children classified as learning disabled had been screened by a Michigan Educational Planning and Placement Committee (EPPC) and officially certified as having a learning disability as their primary handicap.

The EPPC's base their decision to categorize a child on the criteria set forth in the Michigan Department of Education's document, "Guidelines for Special Education Programs and Services in Michigan." These criteria are enumerated in Rule 13 of that document.

"Learning disabled" means a person identified by an educational planning and placement committee, based upon a comprehensive evaluation by a school psychologist or certified psychologist or certified consulting psychologist or an evaluation by a neurologist, or equivalent medical examiner qualified to evaluate neurological dysfunction, and other pertinent information, as having all the following characteristics:

- (a) Disorder in one or more of the basic psychological processes involved in understanding or in using spoken or written language, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculation.
- (b) Manifestation of symptoms characterized by diagnostic labels such as perceptual handicap, brain injury, minimal brain dysfunction, dyslexia or aphasia.

- (c) Development at less than the expected rate of age group in the cognitive, affective or psychomotor domains.
- (d) Inability to function in regular education without supportive special education services.
- (e) Unsatisfactory performance not found to be based on social, economic or cultural background.

While these criteria appear specific, the group of children categorized as learning disabled is not a homogeneous one. It can be said, however, that all children so categorized have seriously failed in some aspect of school work to the degree that they are judged to require special school programming.

It was not feasible to develop a large pool of such families from which a random sample could be drawn as originally planned. Instead, families that met the five criteria were located until a sample of 25 families was achieved.

It was not feasible to establish socio-economic status on the basis of an established evaluational scale specifically for this purpose. Rather, several methods were used to give reasonable assurance that the families were not in the socio-economically deprived category. First, families were selected from predominantly suburban or rural middle income school districts. Second, the examiners were asked to report on the characteristics of the parents that were tested. Several families were rejected, after testing had been done, on the basis of this feedback from the examiners. Finally, there is some

protection against the securing of socio-economically deprived families in criterion E from State rules:

"Unsatisfactory performance not found to be based on social, economic, or cultural background." The procedure for securing families was as follows. Experienced teachers of the learning disabled and teachers of regular classes who were willing to carry out the testing were located. They were asked to find appropriate Learning Disability families among those with whom they worked. In selecting families for both groups, the teachers were, of course, governed by the criteria described above. Generally, the teachers approached families with whom they were somewhat acquainted through the child and who they felt would be willing to participate.

Selection of the Regular Class Group

Regular class families met the same criteria as those described for the Learning Disability families except that the boy in each case had not been labelled as learning disabled, nor had he been provided any other special services that would suggest school achievement difficulties.

TABLE 3.1
 Characteristics of Subjects (Boys)*

<u>Age</u>	<u>Regular Class</u>	<u>L.D.</u>
8- 9 years	1	1
9-10 years	8	6
10-11 years	12	8
11-12 years	4	3
12-13 years		2
13-14 years		5
TOTAL	25	25
Range	8-8 to 11-10	8-9 to 13-5
Mean	10.3	10.9
	(10 yrs. 4 mos.)	(10 yrs. 11 mos.)

*All subjects were white

Test Instrument

The Peabody Individual Achievement Test was published in 1970 by American Guidance Associates, and developed by Lloyd M. Dunn and Frederick C. Markwardt, Jr., as a wide range screening measure of achievement. It has received favorable reviews in The Journal of Special Education (Proger, 1970), Journal of Educational Measurement (Lyman, 1971) and The Seventh Mental Measurements Yearbook, Vol. I (Buros, 1972). Its use with children with learning problems and its correlation with other test instruments has been reported by Soethe, 1972; Ysseldyke, 1973; Burns, Peterson and Bauer, 1974; Wilson and Spangler, 1974; and Bray and Estes, 1975. Participants (examiners) in this project were given a list of all research studies for the PIAT as part of the workshops given in connection with the projects (Appendix B). The

writer has found the PIAT to be more useful for classroom teachers to plan academic programs than IQ tests, while avoiding the controversy associated with IQ tests. The writer decided to use an instrument that could be legally administered by teachers, thereby developing a procedure that may be used by school personnel in planning teacher-parent conferences.

The PIAT was standardized on all socio-economic groups according to the 1967 census. This test gives an accurate measure of performance in five areas: mathematics, reading recognition, reading comprehension, spelling, and general information. General information covers the areas of social studies, science, fine arts, and sports. All subtests except reading comprehension have 84 test items. Reading comprehension has 66 items. Reading comprehension ranges from grades 2 to 12. The other subtests extend from grades K to 12. Scores can be reported in grade equivalents or age equivalents, as well as standard scores and percentiles. By an analysis of errors, teachers can specify those learning areas that need improvement. An unpublished item analysis form has been developed by several local resource teachers (Kutinski, Land, Loose, 1975) and was given to participants in this project (Appendix C).

All test record booklets were returned to the examiners for their future use with their students and parents.

Procedures

Most of the examiners in this study were experienced teachers (plus one psychologist and one principal) who were also graduate students in education and were already familiar with the PIAT which they used to evaluate students. The participants were given two workshops on the administration and scoring of the PIAT to make sure they followed standardized procedures. They were also given written directions for use of the PIAT in this project (Appendix D). The investigator was in regular contact with the participants regarding testing with families. The investigator checked the scoring on all PIAT record booklets.

The PIAT was administered to the child, at his school, in the standard manner. During the pilot phase of this research, the writer realized that children were often uncomfortable being tested at home with his parents nearby. In most cases, the examiner was the child's regular, or special education, teacher or someone with whom the child was familiar and comfortable.

Parents were contacted at conferences or by phone and given a copy of the letter explaining the project (Appendix E). Some parents did not want to participate, or one parent did, and the other didn't. One of the most successful special education resource teachers mentioned that she told the

parents that they could be a great help to her by participating, and thereby enabling her to fulfill the requirements for a class assignment. Most parents enjoyed the experience and found it enlightening, even though they were hesitant at first. The idea of helping their child's teacher as the initial motive for participation perhaps reflects the notion of an opportunity to repay the teacher for all the work she (or he) had done with the child.

The mother was generally seen at the school as part of a regular conference. Fathers were usually seen at home followed by a conference of both parents with the teacher to discuss their estimates and their child's actual score. The PIAT takes about 40 minutes to administer.

The parents were asked to respond to each item on the PIAT as they thought their child would respond. The parents were asked to respond yes, their child would know the answer (scored as a +), or no, he wouldn't (scored -) to each item on the test. Parent responses were recorded on the standard record booklet. Basal and ceiling items were established as with the child, and raw scores and grade equivalents were computed for each of the five subtests and for the total test.

The only identifying data on the record booklets was the child's birthdate, school, "LD" or regular class, examiner's name, and family code number. The code

numbers were assigned so that the child, mother and father of the same family could be kept together (e.g., Child #1, Mother #1, Father #1).

All members of the family were tested within thirty days of each other. Parents were asked not to discuss the test with the child or with each other until all members had been tested.

After testing was completed, each examiner was contacted and asked to give their reactions and the parents' reactions to the project. A form was developed for this purpose (Appendix F). These results are reported in Chapter V.

Research Hypotheses

I. Mothers of boys in regular classes not designated learning disabled will significantly underestimate their son's present level of academic achievement as measured by the PIAT total raw score.

II. Fathers of boys in regular classes not designated learning disabled will significantly underestimate their son's present level of academic achievement as measured by the PIAT total test raw score.

III. Mothers of boys designated learning disabled will significantly overestimate their son's present level of academic achievement as measured by the PIAT total test raw score.

IV. Fathers of boys designated learning disabled will be significantly more accurate in their estimates of their son's present level of academic achievement than any other group of parents in this study.

V. The discrepancy between the estimates of the mothers and the fathers of boys designated learning disabled will be significantly greater than the discrepancy between the estimates of the mothers and fathers of boys not designated learning disabled.

CHAPTER IV

RESULTS

The data for all fifty families in this study is presented in Table 4.1. Each child's PIAT grade equivalent score is given, followed by each parent's score, and the discrepancy, in grade equivalent terms, between parent and child. The last rows in Table 4.1 provide the Range, Means, and Standard Deviations for the scores in each column. Data in this table is referred to below as appropriate in the discussion of each research hypothesis.

Hypothesis I

Regular class mothers will significantly underestimate their son's present level of academic achievement as measured by the PIAT.

This hypothesis was tested using the Wilcoxon Signed Ranks Test for Matched-Pairs. As applied here, this test determines whether there is a consistent tendency for mothers to overestimate or underestimate their son's academic achievement. Total test raw scores were used instead of grade equivalents because the raw scores are a more exact measure of the actual number of items passed or failed on the test. The T statistic obtained from this analysis was

TABLE 4.1
PIAT Total Test Scores and Child-Parent
Discrepancies in Grade Equivalents

	REGULAR EDUCATION					LEARNING DISABLED				
	1 Child's Score	2 Mother's Est.	3 Disc.	4 Father's Est.	5 Disc.	6 Child's Score	7 Mother's Est.	8 Disc.	9 Father's Est.	10 Disc.
1.	4.6	3.9	-.7	4.3	-.3	2.5	2.0	-.5	3.0	+.5
2.	6.0	5.1	-.9	5.6	-.4	3.2	3.5	+.3	3.5	-.3
3.	4.6	4.5	-.1	3.9	-.7	2.0	1.4	-.6	2.3	+.3
4.	8.7	7.7	-1.0	11.6	+2.9	2.2	1.3	-.9	1.6	-.6
5.	4.5	8.0	+3.5	10.0	+5.5	2.3	1.4	-.9	2.7	+.4
6.	6.3	5.8	-.5	6.0	-.3	4.5	4.2	-.3	3.8	-.7
7.	4.3	4.6	+.3	4.5	+.2	2.8	3.8	+1.0	2.7	-.1
8.	5.6	5.8	+.2	6.3	+.7	1.9	2.0	+.1	2.3	+.4
9.	5.3	7.4	+2.1	7.4	+2.1	3.9	2.5	-1.4	4.5	+.6
10.	9.0	10.4	+1.4	7.7	-1.3	2.3	2.2	-.1	2.0	-.3
11.	4.2	3.2	-1.0	3.6	-.6	2.3	3.4	+1.1	2.8	+.5
12.	4.6	4.8	+.2	3.9	-.7	7.1	9.0	+1.9	7.1	0
13.	4.8	3.5	-1.3	3.5	-1.3	4.2	4.8	+.6	3.9	-.3
14.	3.4	4.3	+.9	3.1	-.3	3.4	4.5	+1.1	3.4	0
15.	5.6	5.0	-.6	7.4	+1.8	2.0	.6	-.4	1.9	-.1
16.	9.0	10.0	+1.0	9.4	+.4	3.9	3.8	-.1	3.5	-.4
17.	6.8	9.4	+2.6	12.1	+5.3	5.3	7.1	+1.8	4.8	-.5
18.	5.6	5.0	-.6	4.8	-.8	2.6	3.4	+.8	2.8	+.2
19.	4.6	5.6	+1.0	4.3	-.3	2.8	3.9	+1.1	3.9	+1.1
20.	5.8	9.4	+3.6	6.6	+.8	1.6	2.0	+.4	1.1	-.5
21.	3.2	3.2	0	2.2	-1.0	2.3	3.0	+.7	2.2	-.1
22.	5.3	6.3	+1.0	4.6	-.7	3.0	3.1	+.1	2.6	-.4
23.	6.6	5.6	-1.0	8.0	+1.4	4.6	6.3	+1.7	4.0	-.6
24.	6.6	6.8	+.2	8.4	+1.8	5.1	5.1	0	5.0	-.1
25.	6.3	5.6	-.7	4.6	-1.7	2.3	1.7	-.6	1.4	-.9
R.	3.2	3.2	-1.3	2.2	-1.7	1.6	1.3	-1.4	1.1	-.9
TO	9.0	10.4	+3.6	12.1	+5.5	7.1	9.0	+1.9	7.1	+1.1
M.	5.65	6.04	+.39	6.15	+.50	3.20	3.48	+.28	3.15	-.05
SD.	1.51	2.06	1.35	2.60	1.84	1.30	1.86	.87	1.29	.47

138.0 which is not significant. Thus, the null hypothesis may not be rejected and it is concluded that, counter to the predictions, there is no significant tendency for regular class mothers to underestimate their son's achievement level.

Table 4.1, column 3, shows that mother-child discrepancies ranged from -1.3 to +3.6 with a mean of +.39 and a standard deviation of 1.35.

The Wilcoxon test does not bear on the accuracy of the parents' estimates. The accuracy of the parents in predicting their child's score may be evaluated in terms of the established standard error of measurement (SEM) for the PIAT total test raw score, which is 12.05 raw score points. Thus, parental estimates may be considered as accurate if they are within one SEM of their child's score. Table 4.2 gives the distribution of parents according to whether their scores are accurate, underestimates, or overestimates.

TABLE 4.2
Distribution of Parents According to
Accuracy* of Estimate of Child's PIAT Total Test

	Under	Accurate	Over	N
Mothers				
Reg. Ed.	9	7	9	25
Fathers				
Reg. Ed.	9	7	9	25
Mothers				
L.D.	8	6	11	25
Fathers				
L.D.	7	13	5	25
TOTAL	33	33	34	100
*within 12.05 points on total test				

It can be seen from Table 4.2 that seven regular class mothers accurately estimated their son's score, while nine underestimated by 12.05 points or more, and nine overestimated by 12.05 points or more.

There is no way to evaluate the accuracy of the parents in this study relative to other groups of parents since no norms for this type of performance are available. However, one frame of reference by which to judge the accuracy of these parents can be obtained by inspection of the grade equivalent discrepancies reported in Table 4.1. It can be observed that 19 of the 25 regular class mothers' scores are within one grade level of their son's obtained score, while this is true for 15 of the 25 regular class fathers.

Table 4.3 gives the distribution of parents according to the accuracy of their estimates for each subtest of the PIAT. An accurate estimate is one that is within the SEM of that subtest. Regular class mothers were most accurate in estimating their son's math scores (14 of 25 were accurate) while they were least accurate in estimating reading recognition (7 of 25).

TABLE 4.3
Distribution of Parents According to
Accuracy* of Estimate of Child's PIAT Subtests

Test	SEM	U	A	O	N
Mathematics	5				
	M-R	6	14	5	25
	F-R	5	15	5	25
	M-LD	7	10	8	25
	F-LD	5	13	7	25
Reading Recognition	3				
	M-R	5	7	13	25
	F-R	6	10	9	25
	M-LD	2	11	12	25
	F-LD	4	14	7	25
Reading Comprehension	6				
	M-R	7	8	10	25
	F-R	3	16	6	25
	M-LD	2	18	5	25
	F-LD	1	24	0	25
Spelling	5				
	M-R	5	10	10	25
	F-R	3	14	8	25
	M-LD	2	18	5	25
	F-LD	3	18	4	25
General Information	4				
	M-R	10	12	3	25
	F-R	11	11	3	25
	M-LD	8	9	8	25
	F-LD	10	11	4	25
*within SEM	U = under	A = Accurate	O = Over		

Hypothesis II

Regular class fathers will significantly underestimate their son's present level of academic achievement as measured by the PIAT.

Again, as for Hypothesis I, the Wilcoxon Signed Ranks Test for Matched-Pairs was used to determine whether a tendency existed for parents to underestimate or over-

estimate their child's score. The Wilcoxon T was 151.5 which is not significant. Thus, it may be concluded that there is no significant tendency for regular class fathers to underestimate their son's achievement level.

Table 4.1, column 5, shows that these fathers had a range of discrepancies from -1.7 to +5.5 with a mean of +.50 and a standard deviation of 1.84.

Table 4.2 shows the same distribution as regular class mothers: seven accurate, nine underestimates, and nine overestimates.

Table 4.3 shows these fathers to be most accurate in estimating reading comprehension (16 of 25), and least accurate in estimating reading recognition (10 of 25).

Hypothesis III

L.D. mothers will significantly overestimate their son's present level of academic achievement as measured by the PIAT.

The Wilcoxon test was again used, as in Hypotheses I and II. The Wilcoxon T statistic was 116.0 which was not significant. It may be thereby concluded that there is no significant tendency for L.D. mothers to overestimate their sons' achievement.

Table 4.1, column 8, shows these mothers' discrepancies to range from -1.4 to +1.9 with a mean of +.28 and a standard deviation of .87.

Table 4.2 shows six of these mothers were accurate, while eight underestimated, and 11 overestimated.

Table 4.3 shows these mothers to be most accurate in estimating reading comprehension and spelling (both 18 of 25), while they were least accurate in estimating their son's score in general information (9 of 25).

Hypothesis IV

L.D. fathers will be significantly more accurate in their estimates of their sons' present level of academic achievement than the other parents in this study.

It was felt that fathers of L.D. boys would be accurate in estimating their sons' scores. Since accuracy must be defined according to some standard, it was decided to use the scores of all other parents in the group as a standard and to hypothesize that fathers of L.D. boys would be significantly more accurate than the rest of the parents.

To make this comparison, the distribution of parents according to the accuracy of their scores as presented in Table 4.2 was used. By collapsing the cells of this table, a four-fold contingency table was set up with fathers vs. all other parents constituting the two rows and accurate vs. underestimates plus overestimates constituting the columns. A Chi Square test applied to this contingency table yielded a χ^2 of 4.35, significant at the .05 level. This level is a conservative estimate since it represents a two-tailed test.

Thus, it was concluded that fathers of L.D. boys are significantly more accurate in estimating their child's achievement status than are the other parents.

Table 4.1, column 10, shows these fathers' estimates to range from -9 to +1.1 with a mean of $-.05$ and a standard deviation of $.47$.

Table 4.2 shows 13 fathers were accurate, while seven underestimated and five overestimated. It is noteworthy that, as can be seen in Table 4.1, only one father's total score estimate was beyond one grade level from the child's score.

Table 4.3 shows these fathers to be most accurate in estimating their son's reading comprehension (24 of 25) and least accurate in estimating general information (11 of 25).

Hypothesis V

The discrepancies between the estimates of L.D. mothers and fathers will be significantly greater than the discrepancies between the estimates of regular class mothers and fathers.

The previous hypotheses have involved consideration of the discrepancies between parents and child scores. In this hypothesis, attention is focused on discrepancies between the two parents of a child. It should be noted that it would be possible for parent-child discrepancies to be great, while parent-parent discrepancies remained small. That is, parents could agree in their misperception of a child.

It was assumed initially that because of the family stress posed by a failing child, and the perceptual distortions accompanying this stress, L.D. parents would be less able to accurately evaluate their child's status. Thus, it was hypothesized that, as compared to parents of non-L.D. children, they would show greater discrepancies in their PIAT total scores.

To test this hypothesis, the Wilcoxon Signed Ranks Test for Two Independent Samples was applied. A Z score for large sample approximations of .87 was obtained which is not significant. Thus, the hypothesis is not supported, and it is concluded that parents of L.D. boys do not disagree in their perceptions to a greater extent than do parents of regular class non-L.D. boys.

In order to compare parents according to the accuracy of their estimates on each of the five PIAT subtests, and total test, the data in Table 4.3 was rearranged and is presented in Table 4.4.

Parents are listed as either accurate or inaccurate for each subtest, and total test, depending on whether they estimated their child's score within the SEM for that subtest (see Table 4.3) or for the total test (SEM = 12.05 points)

TABLE 4.4
Distribution and Comparison of Parents
According to Accuracy* of Inaccuracy of
Estimate of Child's PIAT Subtests

<u>REGULAR CLASS</u>					
<u>Test</u>	<u>Mothers</u>		<u>Fathers</u>		<u>Sig.</u>
	<u>Accurate</u>	<u>Inaccurate</u>	<u>Accurate</u>	<u>Inaccurate</u>	
Mathematics	14	11	15	10	NS
Reading Recognition	7	18	10	15	NS
Reading Comprehension	8	17	16	9	.05
Spelling	10	15	14	11	NS
General Information	12	13	11	14	NS
TOTAL TEST	7	18	7	18	NS

<u>L.D.</u>					
<u>Test</u>	<u>Mothers</u>		<u>Fathers</u>		<u>Sig.</u>
	<u>Accurate</u>	<u>Inaccurate</u>	<u>Accurate</u>	<u>Inaccurate</u>	
Mathematics	10	15	13	12	NS
Reading Recognition	11	14	14	11	NS
Reading Comprehension	18	7	24	1	.05
Spelling	18	7	18	7	NS
General Information	9	16	11	14	NS
TOTAL TEST	6	19	13	12	NS

*Accurate is within SEM for each subtest, see Table 4.3

Table 4.4 (continued)

<u>MOTHERS</u>					
<u>Test</u>	<u>L.D.</u>		<u>Regular</u>		<u>Sig.</u>
	<u>Accurate</u>	<u>Inaccurate</u>	<u>Accurate</u>	<u>Inaccurate</u>	
Mathematics	10	15	14	11	NS
Reading Recognition	11	14	17	18	NS
Reading Comprehension	18	7	8	17	.02
Spelling	18	7	10	15	.05
General Information	9	16	12	13	NS
TOTAL TEST	6	19	7	18	NS

<u>FATHERS</u>					
<u>Test</u>	<u>L.D.</u>		<u>Regular</u>		<u>Sig.</u>
	<u>Accurate</u>	<u>Inaccurate</u>	<u>Accurate</u>	<u>Inaccurate</u>	
Mathematics	13	12	15	10	NS
Reading Recognition	14	11	10	15	NS
Reading Comprehension	24	1	16	9	.02
Spelling	18	7	14	11	NS
General Information	11	14	11	14	NS
TOTAL TEST	12	13	7	18	NS

The numbers in each row of Table 4.4 were cast into a contingency table to which a X^2 test was applied. Thus, for the row for the subtest reading comprehension in the Regular Class section, the X^2 test is significant at the .05 level, indicating that fathers of regular class boys are significantly more accurate in predicting reading comprehension performance than are the mothers of these boys.

It will be observed that, with one exception, the spelling test comparison for L.D. and regular class mothers, the only subtest on which the various parent groups consistently differ in their accuracy is the reading comprehension test. Both L.D. mothers and fathers are more accurate than their regular class counterparts. And within the L.D. and regular class groups, fathers are more accurate than mothers.

Summary of Results

1. The prediction that mothers and fathers of regular class boys not designated L.D. would underestimate their sons' total PIAT scores (Hypothesis I and II) was not borne out. In fact, the average discrepancy for both sets of parents was in the direction of overestimates, opposite to that predicted.
2. Mothers of boys designated L.D. did not significantly overestimate their sons' total PIAT scores (Hypothesis III). However, the average discrepancy was in the direction of overestimates, as predicted.

3. Fathers of boys designated L.D. were, as predicted, significantly more accurate than the other parents in predicting their sons' total PIAT scores. Thus, Hypothesis IV was supported.
4. The discrepancy between the estimates of mothers and fathers of boys designated L.D. was not significantly greater than the discrepancy between the estimates of mothers and fathers of boys in regular classes. Thus, Hypothesis V was not supported. However, the average discrepancy for L.D. parents was greater as had been predicted.
5. The reading comprehension subtest of the PIAT significantly distinguished the accuracy of parents' estimates in this study with fathers or boys designated L.D. being significantly more accurate than any other group of parents.
6. If parental estimates of total PIAT scores are considered accurate if they fall within one grade level of their child's obtained score, then the large majority of parents in all groups may be considered accurate, varying from 15 accurate out of 25 for regular class fathers to 24 out of 25 for L.D. fathers.

CHAPTER V
SUMMARY AND CONCLUSIONS

Summary

One of the primary ingredients for most successful school programs is effective communication between teachers and parents. Most teacher training institutions recognize the need for teachers to develop this competency in relating to parents. A difficulty in all types of interpersonal relationships is the different attitudes and expectations of the people involved due to different perceptual worlds. Good communication depends on clear messages and mutual agreement on goals. In teacher-parent contacts regarding a child's academic achievement, it is important that teacher, parent, and child agree on academic goals based on present level of achievement. Teachers usually begin planning a child's academic program by using formal and informal tests and methods of assessment. In conferencing with parents it is helpful to know how accurately parents understand their child's present level of academic skill development. In teacher-parent conferences, the teacher often needs to explain to the parents the school curriculum and their child's progress.

The question has been raised concerning how accurate, or realistic, parents are regarding their children's social and academic development. Several research studies have investigated this question using different populations and different research methods. General research findings indicate that parents tend to make their children more normal than they really are. High achieving children have usually been underrated by their parents and low achieving children have been overrated by their parents. Mothers of exceptional children seem to overrate their children more than any other group of parents. Parents seem to be more accurate in rating present achievement than future achievement. It is not clear if the social class of the parents, or the sex, age, or degree of handicap of the child are significantly related to the accuracy of parents' estimates.

The present study adds to existing research (1) by exploring parental estimates of the achievement status of boys designated as "learning disabled," a group not previously studied; (2) by utilizing an achievement test - the Peabody Individual Achievement Test - that may be teacher administered and that is coming into wide use; and (3) by using an item-by-item parental judgment to generate "parental" test scores rather than asking parents for global estimates of achievement.

Fifty middle class families from suburban and rural areas of Michigan agreed to participate in the study after being contacted by their child's teacher, principal or psychologist. Twenty-five of the children were presumably normal boys in regular classes (ages 8 - 13 years), and 25 were boys of the same age designated learning disabled by State of Michigan Special Education guidelines. Both parents had to agree to participate. The boys were administered the Peabody Individual Achievement Test (PIAT) at their school. The parents were seen individually at school or home and asked to estimate how they thought their child would score on each item of the test. Standard scoring procedures were followed. Total test raw scores and grade equivalents were compared for children and their parents, and for parents of regular class children and children designated learning disabled.

Conclusions

1. Contrary to most previous research, and to the first two hypotheses of this study, there was no consistent tendency for mothers and fathers of boys in regular classes to underestimate their sons' present level of academic achievement. It was expected that these parents would tend to significantly underestimate their sons' academic achievement. The results showed mothers to have a mean overestimate of four months, and fathers to have a mean overestimate of five months (grade level equivalent). Neither of these overestimates was statistically significant.

2. In agreement with most previous research, mothers of boys designated learning disabled did, on the average, overestimate their son's academic achievement by about three months; however, this was not statistically significant and, therefore, did not support the hypothesis of this paper.
3. In agreement with previous similar studies and hypothesis IV of this study, fathers of boys designated learning disabled were more accurate in their estimates than other parents. Results of the present study showed these fathers to underestimate by less than one month. Fathers of these boys were significantly more accurate when compared to all other parents taken as a group.
4. As expected, there was a trend for the discrepancy between the estimates of mothers and fathers of boys designated learning disabled to be greater than the discrepancy between mothers and fathers of boys in regular classes. Again, no consistent pattern of underestimates or overestimates was found. The difference between a mean of 3.3 months and a mean of 1.1 months was not statistically significant, however.
5. Reading comprehension was the one area where a significant difference was found between the relative accuracy of groups of parents, with fathers of boys designated learning disabled being significantly more accurate than any other group.
6. As a total group, the scores of the majority of parents were within one grade equivalent of the score obtained by their child. While the occasional parent deviated widely from accuracy in assessing his child's achievement status, it was concluded that most of these parents were reasonably accurate in understanding their child's current achievement level.

Discussion

The results of this study seem to contradict the findings of most previous studies. In most previous studies, parents of children in regular classes and

parents of exceptional children were found not to be accurate in estimating their child's academic development. The present study does agree with the large study done by Wolfensberger and Kurtz (1971) who found parents of retarded children to be accurate when estimating present academic achievement on a standardized, individual achievement test (WRAT).

The present study involved a different population than previous studies. Previous studies had considered parents of children in regular classes but had not compared them to parents of exceptional children on the same task. Previous studies had involved the parents of children who were retarded and/or physically handicapped while the present study involved parents of mildly handicapped children designated learning disabled. The present study included only boys and, like most similar studies, relied on volunteer parents.

The present study used a different test instrument than any previous study. This test is frequently used by educators to plan academic programs on an individual basis.

The procedure followed in this study is similar to that used by Capobianco and Knox (1964), and Gorelick and Sandhu (1967) by having parents respond to each item on the same standardized test as was given to their child. This seems to be a more precise method of measuring the

accuracy of parental estimates than the global estimates of mental age or grade level achievement used in previous studies. This study is one of few reported in the literature that was conducted by teachers in public school.

A major finding of this study is that parents as a whole are rather accurate in their estimates of their child's school progress. Parents of boys with learning problems are generally as accurate as parents of boys without identified learning problems. This finding might make some school personnel hesitate before blaming a child's school difficulties on disinterested or unrealistic parents.

A significant side benefit of this study seems to be the initial development of a method to improve teacher-parent communication. The 23 participants in this study reported that the contact with the families in this project lead to meaningful discussions about the child's school progress, present school curriculum and many other concerns of the parents. The procedure gave many teachers an opportunity to meet both of their students' parents, and visit many of their students' homes. The participants report that parents were interested in the study and happy to participate and learn more about their child's school work. The participants also reported that they benefitted by learning more about the PIAT.

Earlier it was noted that many special educators feel that parents of handicapped children hold unrealistic expectations for their child's school achievement. Several alternate explanations for the parental dynamics that might produce this impression were proposed. The results of this study would support, for most parents in the learning disabled group, the hypothesis that they do accurately perceive the current achievement status of the child, but that if they do impress school personnel as unrealistically high in their expectations, it is because they are not accepting current status as representing the child's true potential. This conclusion is in keeping with the findings of previous studies to the effect that parents are more accurate in estimating current status than in predicting future status.

However, it should be noted that the paragraph above was written with the implicit assumption that the school personnel, in holding reduced expectations for special class children, are being more realistic than parents. This may be true when the children in question are legitimately designated as mentally retarded. But, the majority of children in this study are probably of average intelligence or above. It may well be that their failure to achieve up to expectancy in certain school subjects at this stage of their elementary school years is not a good predictor of success in life, or even of their later school careers. Teachers may be unduly influenced

in their perceptions of a child by the tangible evidence they possess of the child's academic retardation. On the other hand, parents may be more attuned to strengths they perceive in the child's out-of-school functioning. This study has demonstrated that, for this population of children categorized as learning disabled, the parent's perceptions of the child's current achievement status is remarkably accurate. If this is so, it would have to be demonstrated by concrete evidence that they are not equally accurate if they hold expectations of future achievement within the normal range. And school personnel would be well-advised to exercise great caution in conclusions which they may reach regarding the child's probable future achievement.

Implications for Future Research

The author had considerable difficulty in obtaining his research population and learned much about the realities of doing research especially near a large university. After several months of effort, it was learned that the best method of obtaining families for this type of research was by direct contact with classroom teachers enrolled in graduate classes who usually had to complete some type of term project for their class. Much time was spent seeking volunteers through parent organizations and contacting school districts with limited

results. It was learned that classroom teachers had the direct, personal contact with children and their families and could get volunteers particularly when they told the parents that they would help the teacher complete a graduate class assignment. Classroom teachers could usually easily obtain permission from their building principal or special education director to participate in this project since it was part of a graduate class. When school districts were contacted, it was usually necessary to explain the idea to numerous administrators and answer many possible problems such as confidentiality, financing, and time and location of testing. After clearing this hurdle, perhaps none of the school district's teachers might want to participate. By seeking volunteers through graduate classes, many more teachers could be contacted directly with less time being used.

It would be of interest to determine if results would be different if the parents of girls were studied. Would mothers be more accurate in estimating girls' achievement? It might be difficult, however, to obtain a large sample of girls designated learning disabled since most of the children in these programs are boys.

In studies such as this, seeking parental estimates of child capabilities, the form in which these estimates are secured would appear to be of crucial importance. The method used in this study, which required judgments of parents on specific bits of behavior, would appear to be most thorough and accurate. However, feedback from

the examiners suggested that problems may arise unless great care is taken in administering the test to the parent. For example, some examiners reported that parents became involved in the test as if they were being examined. They appeared eager to give the correct answer, and seemed to have lost the set to decide only whether the child would or would not know the correct answer.

In any event, caution must be exercised in comparing the results of studies that generate parental for-the-child scores, and those that ask for global estimates, since the parent must rely on different evaluational processes in the two situations. The global estimate method, for example, may allow the parent's aspirations for the child to play a greater part. Thus, the theoretical rationale for future studies in this area should determine the choice of the method for securing parental estimates. Perhaps most useful at this stage would be a study in which several kinds of parental estimates were obtained so that a direct comparison of the influence of these various kinds of estimates could be made.

As mentioned at the beginning of this study, the subjects investigated were white, middle class boys and their parents. The findings of this study should not be applied to all families in public schools. Research is needed of parents' perceptions in families of other cultural backgrounds.

Research is also needed on a longitudinal basis to determine how well learning disabled children function later in life. Are parents of learning disabled children accurate if they have higher expectations than teachers and other professionals? Parents hopes for their children are a powerful resource for a better future.

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A P P E N D I C E S

APPENDIX A

Learning Disabled, defined

APPENDIX A

Michigan
SPECIAL EDUCATION CODE

Under the Provisions of
Public Act 198 of 1971

Michigan Department of Education
October 10, 1973

R 340.1713. Learning disabled, defined.

Rule 13. "Learning disabled" means a person identified by an educational planning and placement committee, based upon a comprehensive evaluation by a school psychologist or certified psychologist or certified consulting psychologist or an evaluation by a neurologist, or equivalent medical examiner qualified to evaluate neurological dysfunction, and other pertinent information, as having all the following characteristics:

(a) Disorder in 1 or more of the basic psychological processes involved in understanding or in using spoken or written language, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell or do mathematical calculation.

(b) Manifestation of symptoms characterized by diagnostic labels such as perceptual handicap, brain injury, minimal brain dysfunction, dyslexia or aphasia.

(c) Development at less than the expected rate of age group in the cognitive, affective or psychomotor domains.

(d) Inability to function in regular education without supportive special education services.

(e) Unsatisfactory performance not found to be based on social economic or cultural background.

APPENDIX B

Peabody Individual Achievement Test

APPENDIX B

Peabody Individual Achievement Test

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APPENDIX C

PIAT, Mathematics
Reading Recognition
Spelling
General Information

Peabody Individual Achievement Test

MATHEMATICS

1. number match - blank alternative
2. number match - object alternatives
3. number match - math sign alternatives
4. number match - number alternatives
5. size comparison
6. size comparison
7. basic addition with picture clues
8. basic subtraction with picture clues
9. equivalent sets
10. counting
11. curved line recognition
12. 2-digit number recognition (place value)
13. recognition of fractional parts
14. subtraction story problem (money)
15. comparative/superlative
16. monetary values
17. concept of before and after
18. adding money of different denominations
19. time concepts
20. recognition of fractional parts
21. telling time - hours
22. concept of double
23. concept of pair, addition
24. basic subtraction story problem
25. concept of number sequence (before and after)
26. money addition problem
27. quantitative age comparison
28. telling time - parts of hour
29. comparison of monetary denominations
30. choice of appropriate operation
31. divisibility into fractional parts
32. basic division story problem
33. number sequence
34. story problem (multiples of 5)
35. time concept
36. story problem (multiples of 5)
37. number sequence (multiples of 5)
38. place value
39. multiplication (3's)
40. linear measure (unit equivalence)
41. shape recognition
42. comparison of value with different monetary denominations
43. money multiplication story problem
44. operations with zero
45. computation of time passage - story problem
46. place value
47. fraction operation
48. place value

PIAT Math

49. liquid measure
50. money division story problem
51. place value
52. money division story problem
53. temperature
54. place value addition
55. equivalent fractions
56. parts of circle
57. area of rectangle
58. dozens, multiplication
59. story problem (linear measure)
60. story problem (decimals)
61. story problem (2-step, multiplication)
62. expanded notation
63. story problem (pattern seeking)
64. triangles (definition of type)
65. place value - effects of multiplying by zeroes
66. story problem (percentage)
67. algebra factoring
68. geometric forms (name recall)
69. Roman Numerals
70. ratios - exponents
71. cube roots (algebra)
72. distributive property
73. areas of circle
74. triangles (sum of angles)
75. square roots
76. area of triangles
77. algebra
78. story problem (percentage)
79. degrees in circle (multiple)
80. algebra
81. area of cylinder
82. algebra graphing
83. factorials
84. trigonometry

Kutinsky, Land, Loose - 1975

Name _____

Date _____

PIAT Reading Recognition

Problem areas are indicated by circles.

Keep in mind that a correct response may indicate lucky guess or sight word mastery vs. mastery of all skills listed.

1. Capital letter match - blank alternatives
 2. Capital letter match - picture alternatives
 3. Capital letter match - other lowercase letter alternatives
 4. Capital letter match - other capital letter alternatives
 5. Word match (written in capitals) - attended only to (2) initial/
(3) final letter
 6. Word match - (1 & 3) reversals
 7. Word match - (2 & 4) inversion (3) reversal (4) not attending to
final letter
 8. Word match - (1) partial word reversal (3) transpositions and not
attending to final letter (4) letter reversals
 9. Word match - (1) inversion (2) u/w discrimination (3) n/m discrimination
 10. Verbal letter name recall - consonant capital and lowercase
 11. Verbal letter name recall - vowel capital and lowercase
 12. Verbal letter name recall - vowel capital
 13. Verbal letter name recall - consonant capital
 14. Verbal letter name recall - consonant capital
 15. Verbal letter name recall - consonant lowercase
 16. Verbal letter name recall - vowel lowercase
 17. Verbal letter name recall - consonant lowercase
 18. Verbal letter name recall - consonant lowercase
-
-
-

Questions 19-85 have the student read words aloud. Errors they make in pronunciation are indicated. If the student makes no attempt at the word, the task number will be circled.

I-initial sound

M-middle sound

F-final sound

SV-short vowel

LV-long vowel

VR-vowel - R

VD-vowel digraph sound

Schwa-schwa sound

Sub-substitution

Ins-insertion

Inv-inversion

L.Rev-letter reversal

W.Rev-word reversal

Trans-transposition

O-omissions

Ph-Ph sound

CB-consonant blend

Pre-prefix

Suf-suffix

G-choice of G sound

Ch-choice of Ch sound

S-silent letters

19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____

I-initial sound	Sub-substitution	CB-consonant blend
M-middle sound	Ins-insertion	Pre-prefix
F-final sound	Inv-inversion	Suf-suffix
SV-short vowel	L.Rev-letter reversal	G-choice of G sound
LV-long vowel	W.Rev-word reversal	Ch-choice of Ch sound
VR-vowel - R	Trans-transposition	S-silent letters
VD-vowel digraph sound	O-omissions	
Schwa-schwa sound	Ph-Ph sound	

26.	_____	56.	_____
27.	_____	57.	_____
28.	_____	58.	_____
29.	_____	59.	_____
30.	_____	60.	_____
31.	_____	61.	_____
32.	_____	62.	_____
33.	_____	63.	_____
34.	_____	64.	_____
35.	_____	65.	_____
36.	_____	66.	_____
37.	_____	67.	_____
38.	_____	68.	_____
39.	_____	69.	_____
40.	_____	70.	_____
41.	_____	71.	_____
42.	_____	72.	_____
43.	_____	73.	_____
44.	_____	74.	_____
45.	_____	75.	_____
46.	_____	76.	_____
47.	_____	77.	_____
48.	_____	78.	_____
49.	_____	79.	_____
50.	_____	80.	_____
51.	_____	81.	_____
52.	_____	82.	_____
53.	_____	83.	_____
54.	_____	84.	_____
55.	_____		

Name _____
Date _____

PIAT Spelling

Problem areas circled

1. discrimination of letter from pictures
2. discrimination of letter from numbers
3. discrimination of letter from numbers
4. discrimination of letter from math signs
5. discrimination of letter from math signs
6. discrimination of letter from math signs
7. discrimination of letter from pictures
8. discrimination of letter from numbers
9. discrimination of letter from numbers
10. discrimination of letter from math signs
11. discrimination of letter from numbers
12. discrimination of letters
13. discrimination of grossly different words
14. discrimination of words with different initial sounds
15. discrimination of grossly different words
16. discrimination of grossly different words
17. discrimination of words with same initial letters

The rest of the words are finer discriminations. The numbers within each problem indicate possible wrong answers - and the type of confusion shown.

18. (1, 2 & 3) vowel digraphs
19. (1 & 3) vowel digraphs (4) vowel choice
20. (1 & 2) Z vs. S (3) vowel choice
21. (1) vowel choice (2) doubling insertion (4) wh blend
22. (2, 3 & 4) long vowel - e
23. (1 & 3) vowel - R (1 & 4) schwa
24. (1 & 2) Z vs. S (2 & 4) transposition of vowel - R
25. (1 & 3) consonant blend (1 & 4) vowel choice (3) plural
26. (2) letter reversal (3 & 4) ow confusion (4) doubling insertion
27. (1) omission final consonant (2) transposition (4) omission in consonant blend
28. (1) vowel choice (2) letter inversion (4) insertion
29. (1) vowel digraph transposition (3) Y (3) final E insertion (3 & 4) vowel digraph omission
30. (1) vowel - E rule (2) omission silent letter (3) vowel insertion
31. (1 & 4) Sh vs. S (3) choice of vowel - R
32. (1 & 3) omission silent letter (3) doubling insertion (4) silent letter insertion
33. (1 & 3) long vowel (2 & 3) silent letter insertion
34. (1) ow confusion (2) vowel digraph (3) silent letter insertion
35. (1) vowel choice (1 & 2) choice of vowel - R (4) doubling omission
36. (2) transposition (3) omission (4) vowel choice
37. (2 & 3) schwa choice (2 & 4) ending substitution
38. (1 & 4) long I vs. Y (3) vowel insertion
39. (1 & 3) SC vs. S (2 & 3) vowel digraph transposition
40. (1, 2 & 3) vowel - R
41. (1) vowel digraph insertion (3) vowel digraph omission (4) vowel - R
42. (2 & 3) doubling insertion (3 & 4) vowel choice
43. (2) doubling insertion (3 & 4) vowel choice (3) vowel digraph insertion

44. (1 & 2) transposition (2 & 3) doubling omission
45. (2 & 3) vowel choice (4) vowel omission
46. (1 & 4) vowel digraph omission (2) consonant doubling omission
47. (2 & 3) insertion (4) schwa choice
48. (2 & 3) vowel choice (4) vowel transposition
49. (1 & 4) doubling insertion (2 & 4) PH vs. F
50. (1) vowel choice (1 & 2) doubling insertion (3) vowel transposition
51. (1 & 4) schwa choice (2) doubling omission
52. (1, 2 & 3) doubling omission
53. (1) Y vs. I (2) vowel digraph insertion (3) C vs. S
54. (1) Y vs. I (3 & 4) C vs. S (3) vowel choice
55. (2) schwa choice (2, 3 & 4) doubling omission (4) vowel digraph insertion
56. (1 & 3) schwa choice (2) insertion
57. (1) vowel transposition (3) schwa choice (4) vowel digraph omission
58. (1, 2 & 3) vowel transposition (2) vowel choice
59. (1 & 4) vowel omission in suffix (2) choice of vowel - R
60. (1 & 4) vowel omission in suffix (3 & 4) choice of vowel - R
61. (1, 2 & 3) complex suffix
62. (2, 3 & 4) choice of vowel - R (2 & 3) doubling insertion
63. (1 & 3) schwa (1) doubling insertion (4) vowel insertion
64. (2 & 3) SC vs. SS (4) doubling omission (3 & 4) schwa
65. (1 & 4) S vs. C (1) schwa (2) doubling insertion
66. (2, 3 & 4) SC vs. C (3 & 4) complex suffix
67. (1, 3 & 4) schwa
68. (1 & 3) schwa (1, 3 & 4) vowel digraph insertion
69. (1 & 4) PH vs. F (1) N vs. M (1 & 3) vowel insertion
70. (2, 3 & 4) schwa
71. (1, 3 & 4) schwa (3 & 4) PH vs. F
72. (1 & 3) doubling insertion (1 & 2) vowel digraph omission
73. (1) schwa (1, 2 & 3) doubling omission
74. (1 & 4) schwa (3 & 4) doubling omission
75. (1 & 2) doubling omission (2 & 4) choice of vowel - R
76. (1, 2 & 4) doubling omission (4) doubling insertion
77. (1, 2 & 4) CK vs. C (3) K vs. CK
78. (1 & 3) doubling insertion (1 & 2) doubling omission
79. (2 & 4) schwa (3 & 4) doubling and vowel insertion
80. (2, 3 & 4) complex suffix
81. (1, 3 & 4) complex suffix
82. (1, 2 & 4) doubling insertion
83. (1) vowel choice (2 & 4) complex transposition/insertion
84. (1) C vs. S (2) doubling insertion (4) SC vs. C

Name _____

Date _____

Score _____

Peabody Individual Achievement Test

GENERAL INFORMATION

1. body awareness - point
2. body awareness - associate name with function
3. body awareness - associate name with location
4. animal sounds
5. properties of water
6. awareness of community job functions
7. awareness of community job functions
8. food sources
9. basic weather
10. U.S. flag
11. transportation energy sources
12. space travel
13. basic botany growing process
14. plant/animal differentiation
15. transportation vehicles
16. concept of contagion - common cold
17. sequence seasons
18. awareness of community job functions
19. landforms - definition
20. textile sources
21. fire - properties - (needs oxygen)
22. food sources
23. food sources
24. community store functions
25. student's home location (state)
26. basic anatomy; physiology
27. color mixing - properties of color
28. basic physiology
29. sports - (identification)
30. sports - (identification)
31. farm equipment
32. music - people involved
33. nutrition - infant care
34. weather - (thermometer reading)
35. basic government - democracy
36. U.S. history - famous people
37. physiology - vocabulary
38. animal anatomy/physiology
39. sources of everyday items
40. landforms - (definition)
41. basic astronomy - (relate size and distance)
42. student's geographic location (country)
43. famous inventors
44. seasons
45. basic government

46. earth science
47. Black history
48. judicial system
49. international travel
50. music - people involved
51. astronomy
52. first aid
53. geology
54. government budget
55. art
56. animals - yearly life cycle
57. pattern of seasons
58. basic chemistry
59. musical instruments - classification
60. travel - procedure
61. sports - identification
62. world awards -
63. astronomy - comparative relationships
64. government - national structure
65. physiology - health study
66. sound
67. world government - current
68. world transportation
69. government - import - export (concept)
70. international awareness - relative populations
71. famous artist
72. government - definition of type
73. astronomical discoveries
74. physics - energy
75. world politics (United Nations)
76. religion (comparative)
78. astronomy
79. law
80. economics (definition of systems)
81. geography
82. music - famous composers
83. physics
84. English language

APPENDIX D

Instructions for Administration of PIAT

APPENDIX D

Teacher - Parent Communication Project

Instructions for Administration of PIAT with Children, and Parents

I. Children:

Please follow standardized procedures for administration and scoring of PIAT. On the front page of the Individual Record Booklet, please put the family number according to the sequence of numbers you were assigned (e.g., 31, 32, 33). Please put your name as Examiner. Fill in the Grade and whether the child is designated LD. Complete Age Data. For test scores, put raw scores and grade equivalent for all tests and for total test.

In math subtest, follow the directions of asking the child to make a choice after approximately 30 seconds and go to the next item. For Reading Comprehension, have the child carefully read the sentence once (not linger over difficult words or meaning of sentence). This is a difficult procedure to manage and can greatly effect scores if the child is given unlimited time to study the sentence. On the General Information subtest, after I have reached a ceiling, I usually conclude the test by asking the child several easy items (below their basal) in order to have the child end on a successful note.

II. Parents:

Whenever possible, try to see the parent at school since testing and conferencing in homes is often difficult due to distractions and interruptions. Ask the parents not to discuss the test with each other or with the child until all three have taken the test. Thank the parent for taking the time to meet with you for this study. Explain that this is a project to improve teacher-parent communication. It is an opportunity for the parent to see what kind of material is being taught in school and to see how their child scored. The information should help teachers to improve teacher-parent conferences. All information is confidential. No names will be used. Each family will have a number in order to keep the family information together.

On the parent record booklet, please put the family number (e.g., 31, 32, 33), sex of parent (i.e., mother or father), your name as examiner, date of test (date of birth for child only will be on child's booklet), and subtest scores (raw scores and grade equivalents).

On each of the subtests, ask the parent to tell you whether they think their child would know the answer to each item by saying "yes" or "no". On the record booklet mark a plus (+) for yes and a minus (-) for no next to each item. Establish a basal and ceiling in the standard manner. When parents are not sure of the item, ask them to make their best guess as their child is asked to do on the test.

In conferencing with the parents, explain that this is only one test and the child might function higher or lower in class on a day-to-day basis.

If you have any questions, please call me.
(517) 485-4507

Wells Longshore

APPENDIX E

Letter to Parents

APPENDIX E

Dear

I am taking a course in teacher-parent communication through Michigan State University. One of my assignments is to meet with both of the parents of several students regarding their child's academic progress. I think this can be an opportunity for you and me to gain a better understanding of your child's school work. I would like to evaluate your son's progress in math, reading, spelling and general information and then share the results with you. I would like to meet with each of you individually and have you estimate how you think your son would perform in these academic areas. Then the three of us would meet and discuss your son's actual results. I would see your son at school and then meet with you at school, or at your home. My conference would take about 40 minutes with each of you, and then our follow-up discussion. This procedure can be done at one conference or in two shorter conferences. No names will be used for my assignment report. I hope you might be able to participate in this project with me. Thank you.

Sincerely,

APPENDIX F

Post Project Questionnaire

APPENDIX F

Teacher-Parent Communication Project
(Post Project Questionnaire)

1. Examiner's Name: _____ Child's School: _____
Child's Race: _____ Primary Language of the Home: _____
Natural Parents: _____, or Step-Parents: _____
2. Number of Families Tested: Regular Ed _____ L.D. _____
3. Method of Contacting Parents (conference, phone, letter, other): _____

4. Number of Families Contacted: Regular Ed _____ L.D. _____
5. Reasons Given for Not Participating: _____

6. Time and Location of Testing:
 - a. Child _____
 - b. Mother _____
 - c. Father _____
7. Problems of Difficulties in Testing (time, travel, lack of test kit, etc.):

8. Reactions, Comments, Questions, Suggestions by Child and Parents:
 - a. Child _____

c. Father _____

Thanks again, without you it couldn't have been done.

Wells J. Longshore, Ph.D. (Almost)



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