

Accepted by the graduate faculty of the School of Education, Morehead State University, in partial fulfillment of the requirements for Specialist in Education Degree in Curriculum and Instruction.

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ABSTRACT OF APPLIED PROJECT

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1976

FIRST GRADE TEACHERS CAN LEARN TO MORE ACCURATELY
IDENTIFY SPECIFIC LEARNING DISABILITIES
IN THEIR CHILDREN

ABSTRACT OF APPLIED PROJECT

An applied project submitted in partial fulfillment of the
requirements for the degree of Education Specialist
at Morehead State University

by

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Morehead, Kentucky

1976

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ABSTRACT OF APPLIED PROJECT

FIRST GRADE TEACHERS CAN LEARN TO MORE ACCURATELY
IDENTIFY SPECIFIC LEARNING DISABILITIES
IN THEIR CHILDREN

Director of Applied Project: Dr. Leonard E. Burkett

Purpose of the Project:

The purposes of this paper are: 1) to discover how well teachers are presently observing those children who are having trouble learning; and 2) to determine whether short instruction concerning cognitive, physical, and cultural factors, and how they relate to learning potential and classroom performance, will help enable teachers to "bridge the gap" between reading and learning problems, and effective, diagnostic teaching.

Hypotheses:

The writer has proposed the following hypotheses: 1) that first grade teachers do not adequately observe a child to discover his learning characteristics, and any factors which may presently be hindering him from learning; and 2) that first grade teachers could learn to better identify problems, strengths, and modes of learning with only minimal instruction.

Design of the study:

All seventeen first grade teachers in the Ashland, Kentucky public schools were asked to refer those children in their rooms who were having difficulty learning. Forty-seven children were referred. Upon receipt of the referrals, the writer interviewed every teacher about each child's ability to perform specific tasks. Fifty tasks were selected and written in the form of a questionnaire. The questionnaire was designed to collect answers about cognitive, physical and physiological tasks or abilities which correlate with reading and learning.

The teachers were instructed to answer either "yes," "no," or "don't know," as to whether the child could perform the tasks. After all of the teachers had been interviewed, they received instruction in the form of a one-hour seminar. Each item on the questionnaire was discussed in relation to how it correlates with reading and learning problems; and how the teachers could test or observe the child's ability to perform the tasks. A question and answer session followed. The teachers were then given a blank copy of the same questionnaire for every child about whom they had been interviewed. They were asked to observe, test and check each item carefully using all the information learned during the seminar.

An arbitrary time period of two weeks was allowed for the teachers to observe the children and perform any

tasks with them they needed to complete the questionnaires. Upon completion of the questionnaires the results of the first group of data were statistically compared with the second ones using the student "t" test for correlated samples, to determine whether there was a significant discrepancy between the two. The hypotheses would be accepted at the .05 level of probability.

Findings:

Thirty-nine of the forty-seven questionnaires distributed were returned within the two weeks allotted. The significance of the hypotheses were tested statistically by performing statistical calculation on two different groups of data obtained from the two administrations of the questionnaires.

First, only the "don't know" answers of the questionnaires were taken into account. Second, an arbitrary weight of 2 for the "yes" answers, 1 for the "no" answers, and 0 for the "don't know" answers was given and a series of data was constructed for the two groups. The student "t" test was used to determine the level of acceptance.

Both groups of data, with 38 degrees of freedom, were found to be significant beyond the five (.05) percent level of probability. In fact both t_1 and t_2 were significant at the .0005 level of probability.

Conclusions:

The results showed that there was a significant difference between the two groups of data, even at a .0005 level of probability. Therefore, the hypotheses stated were accepted. This indicates that the first grade teachers in Ashland, Kentucky are not adequately observing many factors which correlate with reading and learning problems; but that they can do a much better job with only minimal instruction. It is therefore recommended that similar seminars and workshops be conducted for elementary school teachers.

Accepted by:

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APPLIED PROJECT

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Graduate School

Morehead State University

1976

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ACKNOWLEDGMENTS

I would like to thank Dr. Leonard Burkett for his guidance during the writing of this paper.

I especially want to thank my husband, without whose encouragement this paper would not have been written.

W. 11.16 - camera - 8/27/77

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CHAPTER I

INTRODUCTION

The purpose in diagnosing reading and learning problems is two-fold. A teacher needs to discover how a child learns best so that she can adapt her method of instruction accordingly, and she also needs to discover if there are any factors involved which may presently be keeping the child from learning. When a child is not progressing as well as the teacher feels he should, it must be determined, among other things, whether the child may be either mentally handicapped, a slow learner, environmentally disadvantaged, emotionally disturbed, have physical defects or disabilities, or have specific visual or auditory functional perceptual problems, all or any of which may be preventing him from learning normally. When this is determined, the necessary remedial steps can be followed, and instruction can be adjusted accordingly.

In many schools, the classroom teacher is still the person primarily responsible for the diagnosis and remediation of reading problems. Many school districts do not have any remedial teachers, reading specialists, psychologists or sociologists, and the teacher is the only person who can do the total diagnostic work necessary. Even when these auxiliary personnel are at hand, a teacher

can be of prime importance in aiding the total diagnostic and remedial process. Diagnosis should be an on-the-spot, continuous process. If the teacher is alert to symptoms and signs, and keeps accurate notes of her observations, she can then analyze the child's strengths and weaknesses, evaluate his progress in relation to the instruction he has received, make referrals to other professional personnel if needed, and make adjustments in teaching techniques.

Being alert to the first signs of problems, and acting upon them, is the first and most important step in preventing reading and learning problems. Diagnosis is at the heart of both preventing and remediating reading difficulties. A well-trained teacher diagnoses as she teaches. She notes individual performance in her daily contact and gains an understanding of how the child acquires his skills, and why he makes certain errors. Without this on-going diagnostic observation, the teacher will tend to introduce new concepts to all of the children at the same time, and attempt to move all of them on at the same rate. Practice on skills may be neglected, and the concept may not have been fully understood before new concepts or skills are introduced. In the same manner, formal reading instruction may be introduced before the child has reached an adequate readiness level, and frustration and failure will probably be the result. Since it is well known that child-

ren develop and mature at different rates, some children may be ready to learn a particular skill while others are not.

Some children learn best by one method and others learn best by another. For example, a child with auditory perceptual difficulties will experience more difficulty with a phonetic method of reading instruction; whereas a child with visual defects or perceptual difficulties may experience more difficulty when a look-say method is emphasized. That is why teachers need to know not only the child's basic mental ability, and his achievement level to date, but also how the child learns best-his mode of learning. All of this information should be taken into account when a teacher groups her children for instruction. Trained teachers who observe children's strengths, weaknesses, and modes of learning, and adjust reading instruction accordingly, bridge the gap between diagnosis of problems and effective remediation.

Many studies such as those cited by Harris¹, have led to the conclusion that reading disability is usually caused by a multiplicity of factors. Blair² agrees that there is usually a plurality of factors operating to cause

¹ Harris, Albert J., and Edward R. Sipay, How To Increase Reading Ability (New York: David McKay Co., Inc., 1975), pp. 240-41.

² Glenn M. Blair, Diagnostic and Remedial Teaching (New York: The Macmillan Co., 1967), p. 48.

the reading problem. Early³ outlines three implications for the classroom teacher: 1) the child who is a reading failure must be viewed from all possible aspects and referred to other professionals when further diagnostic help is needed, 2) since the causation of reading failure is usually multiple, the remediation process must also involve many facets, and 3) diagnosis and resulting treatment must be continuous to meet new insights gained concerning the child and how he learns.

How much any one factor is responsible for a disability, or to what degree it is involved, is often too difficult to determine. Some authors question the necessity of identifying the cause or causes. Harris⁴ believes that teachers would be well advised to employ seven specific sequences in dealing with children who have a reading problem. This paper is concerned with the second and third sequences, namely: the child's particular strengths and weaknesses, and any discernable factors which may presently be hindering the child from learning.

It is especially desirable to detect children who do have problems or will experience difficulty as early as possible so that intervention and remediation can begin.

³ Margaret J. Early, "What Does Research Tell the Classroom Teacher About the Basic Causes of Reading Disability and Retardation?" from, Reading Disabilities Selections on Identification and Treatment, ed. Harold Newman, Indianapolis: The Odyssey Press, 1969, pp. 61-62.

⁴ Harris, op. cit., p. 242.

Problem Statement

The purposes of this paper are: 1) to discover how well teachers are presently observing those children who are having trouble learning, and 2) to determine whether short instruction concerning cognitive, physical, and physiological factors, and how they relate to learning potential and classroom performance, will help enable teachers to "bridge the gap" between reading and learning problems and effective, diagnostic teaching.

Rationale

If the first grade teachers were alerted to study a child's specific abilities, they would become more objectively aware of the child's characteristics. They could discover how the child learns best, and if there were any factors which might be keeping the child from learning. The teacher would be able to give more thorough and detailed information to the special-remedial teacher, the psychologist, and other related personnel who are involved in the total evaluation of the child. This information could then be used to develop a teaching prescription to teach to the child's strengths and remediate the weaknesses. A cooperative venture will have evolved, and the first grade teachers will have become important members of the identification and remediation team.

If the first grade teachers do become aware of their children's specific learning problems, and are better able to identify the child's learning characteristics, this would indicate that workshops for the first grade teachers in Ashland were of value. The teachers will have become more skilled at recognizing symptoms of problems, and at analyzing characteristics to discover modes of learning. The teachers will also be more adequately trained as to what they should observe and take note of when making subsequent referrals for help outside of the regular classroom.

Hypotheses

The following hypotheses are proposed: 1) that first grade teachers do not adequately observe a child to discover his learning characteristics, and any factors which may presently be hindering him from learning. 2) It is further hypothesized that first grade teachers could learn to better identify problems, strengths, and modes of learning with only minimal instruction.

CHAPTER II

REVIEW OF RELATED LITERATURE

Authorities seem to agree that the classroom teacher is in the best position to observe and recognize individual needs and to make an objective educational diagnosis. The classroom teacher has an excellent opportunity to note slight deviations which may indicate later problems in learning. Because she observes over a long period of time she can distinguish between typical behavior and temporary deviations which may help in a more objective evaluation of exact causes and results.

In an experiment they did to train teachers in methods of observation, Haring and Ridgway¹ concluded that the teacher plays a key role in the identification of learning disabilities; and that they could do a better job of predicting children's learning disabilities than a battery of tests, when provided with a structured guide to observation. Strang² sums up this point well:

¹Norris G. Haring and Robert W. Ridgway, "Early Identification of Children with Learning Disabilities," Exceptional Children, 33: 393, February, 1967.

²Ruth Strang, Diagnostic Teaching of Reading, (New York: McGraw-Hill Book Co., 1969), p. 43.

Too many teachers think that they must depend upon test results. It is better to select a few reliable instruments that the teacher can interpret and apply than to administer many tests whose results are poorly interpreted and used unwisely. Many teachers underestimate the diagnostic possibilities of their day to day contacts with students. Many do not realize that they themselves are the most important influence on students' reading achievement.

Schleichkorn³ organized a checklist which teachers can use to recognize problem areas, and subsequently refer children to appropriate specialists when needed. The checklist consists of 121 items divided into the following six categories: coordination and motor activities, behavior, responses (aural), communication (verbal), conceptual ability, and perception. The author warns that no diagnosis or conclusions be reached on the basis of the checklist, but that it be used to select children who need further study.

Haring and Ridgway⁴ screened over one thousand children in forty-eight kindergarten classes for learning

³ Jacob Schleichkorn, "The Teacher and Recognition of Problems in Children," Journal of Learning Disabilities, 5: 56, October, 1972.

⁴ Haring and Ridgway, loc. cit.

disabilities. The authors concluded that to prevent serious learning problems in later years, early identification of a child with learning problems is essential. The implications of their study confirmed the "teacher's key role" in identifying children with learning problems early; and also that individual assessment, programming, and teaching methods are needed for the modification of individual behaviors.

McKnab and Fine⁵ also concur that early identification is essential. They believe that if children with potential learning problems could be identified early, they could be placed in appropriate remedial programs, and many academic failures in later grades could be prevented. A position report by Education U.S.A.⁶ states:

The most important thing,---is to begin early in trying to diagnose a pupil's reading problems - almost from the moment that the youngster first enters class. A four-year study of some 10,000 pupils shows that the chances for correcting reading deficiencies are ten times greater if the problem is spotted in the primary grades,-----to the classroom teacher, authorities say, the most important thing is to discover specific skills in which a child is

⁵Paul A. McKnab and Marvin J. Fine, "The Vane Kindergarten Test as a Predictor of First Grade Achievement." Journal of Learning Disabilities. 5:57, Oct., 1972:

⁶Education U.S.A. Special Report, Reading Crisis: The Problem and Suggested Solutions (Washington, D. C. National School Public Relations Association, 1970), p. 5.

weak--so that she can concentrate on those areas and can determine at what level the pupil should be taught. 'A specific diagnosis is probably the key factor in prevention as well as in remediation of reading difficulties.'

There seems to be little disagreement among authorities that the duty or "burden" of the diagnostic, evaluative, and remedial process rests with the classroom teacher. Roswell and Natchez⁷ agree that in most cases, reading disability problems are of necessity handled by the classroom teacher. Burnett⁸ points out that as research tells us that there is no one best way to teach reading to all children, the teacher's role is increasingly being looked upon as being that of a diagnostic specialist. DeChant⁹ states:

"The teacher, if he is to prevent reading disabilities, needs to become somewhat of an expert diagnostician. He needs to be 'on top of the situation' as it were. Furthermore, he needs to become a diagnostic teacher who has command of various instructional techniques and methods."

⁷Florence Roswell and Gladys Natchez, Reading Disability, Diagnosis and Treatment (New York: Basic Books, Inc., 1971), p. 30.

⁸Richard W. Burnett, "The Diagnostic Proficiency of Teachers of Reading," The Reading Teacher, 16:229, January, 1963.

⁹Emerald DeChant, Diagnosis and Remediation of Reading Disability (West Nyack, N.Y.:Parker Pub. Co., Inc., 1968), p. 3.

Hammill¹⁰ believes that the school must recognize and accept the teacher as the "primary contributor to, and interpreter of results;" and that she must coordinate the total evaluation if the information obtained is ever put into educational action. Wilson¹¹ alleges that the teacher's ability to conduct "on-the-spot informal diagnosis" is directly related to his understanding of his children and knowledge of their strengths and weaknesses. Harris¹² writes:

Learning to understand a child who is having trouble in reading is a challenging and exciting task, like any other form of exploration. This learning process, which we call diagnosis, can be carried out to different degrees of completeness by teachers, by remedial specialists, and by special clinical centers. It is not expected that a classroom teacher should make a thorough diagnosis of every pupil; such an undertaking would leave little time or energy for teaching. Fortunately, many of the simpler difficulties in reading can be corrected by direct teaching of the missing skills, without an intensive search for reasons why the skills were not learned before. Teachers, nevertheless, should know the factors that can contribute to reading difficulties and should be able to carry out the simpler parts of a diagnostic study.

¹⁰Donald D. Hammill, "Evaluating Children for Instructional Purposes," Academic Therapy, 6:342, Summer, 1971.

¹¹Robert M. Wilson, Diagnosis and Remedial Reading (Columbus, Ohio: Charles E. Merrill Pub. Co., 1967), p. 16.

¹²Harris, op. cit., p. 132.

Strang¹³ agrees that the teacher does not have to wait for a specialist's report before remedial steps can be taken. She can observe the child herself in her daily work, and gain an understanding of weak areas on which to begin remediation. Capobianco¹⁴ also feels that it is not the teacher's responsibility to make a thorough diagnosis, but that it is her duty to utilize any techniques or methods which can alleviate the problem or causes responsible for it. He advises that the teacher "keep complete records, including achievement tests, samples of school work, anecdotal reports, and rating scales."

Smith¹⁵ professes that teaching and learning will become effective in direct relation to the willingness of the teacher to take into account the individual differences among children when developing an appropriate educational prescription to meet each child's abilities and inabilities. Wilson¹⁶ suggests that the teacher make an informal "on-the-spot" diagnosis and adjust the instruction according to her

¹³Strang, op. cit., p. 31.

¹⁴R.F. Capobianco, "Diagnostic Methods Used With Learning Disability Cases," Exceptional Children, 31:188 December, 1964.

¹⁵Robert M. Smith, Teacher Diagnosis of Educational Difficulties (Columbus, Ohio: Charles E. Merrill Pub. Co., 1969), p. 8.

¹⁶Wilson, op. cit., p. 17

findings. If this does not help, she must conduct a thorough classroom diagnosis and individualize instruction. And only after these two steps have been unsuccessful, does he suggest that the teacher refer the child to a reading specialist, remedial teacher, or professional outside of the school. He writes, "Certainly the more informed he (the teacher) becomes concerning causation, the more effective he will become in analyzing a pattern of symptoms intelligently."¹⁷

Spache¹⁸ advises teachers to depend on observational and interview techniques when analyzing the student's self-concept and attitude toward reading. The teacher needs to carefully observe the child's behavior, comments, and reactions when reading, over a period of time. Attention to the child's spontaneous comments in relation to school and reading will give other clues as to the child's self-concept, and how important reading is to the child.

DeChant¹⁹ concludes:

To detect and diagnose the incipient reading problems, then, is a prime responsibility of the teacher and it is at this point that prevention of reading

¹⁷Wilson, op. cit., p. 8.

¹⁸George D. Spache, "Diagnosis of Reading Disabilities in the Classroom," Education Digest, 26:48, November, 1960.

¹⁹DeChant, op. cit., p. 3.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial operations.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It highlights the need for consistent and reliable data collection processes to support informed decision-making.

3. The third part of the document focuses on the analysis and interpretation of the collected data. It discusses the various statistical and analytical tools used to identify trends, patterns, and anomalies in the data.

4. The fourth part of the document discusses the importance of regular reporting and communication of the findings. It emphasizes that timely and accurate reporting is crucial for keeping stakeholders informed and engaged.

5. The fifth part of the document discusses the various challenges and risks associated with data collection and analysis. It highlights the need for robust security measures and data protection protocols to ensure the integrity and confidentiality of the data.

6. The sixth part of the document discusses the importance of ongoing monitoring and evaluation of the data collection and analysis process. It emphasizes that regular reviews and updates are necessary to ensure the process remains effective and relevant.

7. The seventh part of the document discusses the various applications and uses of the collected data. It highlights the wide range of potential uses, from strategic planning and decision-making to operational optimization and performance improvement.

8. The eighth part of the document discusses the importance of collaboration and teamwork in the data collection and analysis process. It emphasizes that effective communication and collaboration are essential for ensuring the success of the process.

9. The ninth part of the document discusses the various tools and technologies used in data collection and analysis. It highlights the importance of staying up-to-date with the latest developments in data science and analytics.

10. The tenth part of the document discusses the importance of ethical considerations in data collection and analysis. It emphasizes that data should be collected and used in a responsible and ethical manner, respecting the privacy and rights of individuals.

disability begins. Prevention of reading difficulties thus begins before the child begins formal reading instruction and continues throughout his entire school year. It begins in the readiness program and is best brought about by diagnosis of and constant alertness to any incipient or existing difficulty.

Many writers agree that diagnosis is an on-going process and that diagnosis implies remediation. Capobianco²⁰ declares, "Mere classification and/or testing does not necessarily prescribe treatment - complete diagnosis or assessment implies a course of remediation with prognosis." Smith²¹ views the effective teacher as being aware of the various strengths and weaknesses of all of her children; and she must offer special instruction in the classroom to those who need it. He states, "Competent and effective teaching demands constant evaluation of the curriculum, the individual characteristics of children, and the impact of various instructional strategies. These data provide the necessary documentation for adjusting teaching techniques appropriately." He offers the comparison of remedial instruction without prior diagnosis of difficulties as similar to a surgeon operating without prior information about his patient.

Blair²² thinks that remedial teaching by necessity

²⁰ Capobianco, op. cit., p. 188.

²¹ Smith, op. cit., pp. 5-6.

²² Blair, op. cit., p. 13.

is based upon a careful diagnosis of strengths and weaknesses, and factors which may be hindering reading growth and causing learning failures. He professes that an alert teacher can detect where and when the child is having difficulty learning through careful observation when the child is reading, and doing other close work.²³

Rutherford²⁴ stresses the importance of teacher-diagnostic evaluation at four levels when a child has difficulty learning to read. He calls our attention particularly to the fourth level which he calls prescription. He writes, "When a teacher explicates a child's reading problem in terms of reading skills that the child does and does not possess, and types of reading activities that he can and cannot perform, then the teacher has obtained the desired diagnostic level - the prescriptive level."

Perticone²⁵ also feels that whether the "minimally achieving child" will benefit from special remedial techniques in the regular classroom, or will need individual instruction outside of the classroom, teacher observations can

²³ Blair, op. cit., p. 19.

²⁴ William L. Rutherford, "From Diagnosis to Treatment of Reading Disabilities," Academic Therapy, 8:54, Fall, 1972.

²⁵ Eugene X. Perticone, "The Observant Teacher," Academic Therapy, 8: 26, Fall, 1972.

serve as the basis for identification and education of the child with learning problems.

When information is gathered, the teacher must also know what to do with it. She must be able to outline strong and weak areas and plan her remedial program accordingly. Rutherford²⁶ is of the opinion that diagnosis of reading problems is only useful to the teacher in relation to what it tells her about what the child specifically knows and doesn't know, and how the child can learn best.

Buktenica²⁷ suggests that we stop some of the existing methods such as labeling "and develop screening methods that will identify pertinent (probably nonverbal) perceptual and cognitive factors at an early age." He goes on to outline the purpose of screening as being three-pronged: 1) to predict those children who will most likely have learning problems, 2) to describe the child's learning strengths and weaknesses, and 3) to give the necessary information to develop an appropriate intervention program designed to prevent learning disabilities.

²⁶ Rutherford, op. cit., p. 54.

²⁷ Norman A. Buktenica, "Identification of Potential Learning Disorders," Journal of Learning Disabilities, 4: 35, August/September, 1971.

Ozer and Richardson²⁸ advise that when diagnosing children with learning problems, rather than simply labeling them -- which places them into a category -- data as to what will help the child succeed in learning needs to be ascertained. The authors use a set of tasks in a Neuro-Developmental Observation (NDO) to determine how the child learns best, and where the child's weaknesses are. Hartlage and Lucas²⁹ developed a group screening for reading disability in children beginning first grade. The authors concluded that the group screening test can be of value in predicting first graders' reading success. They also indicate, more importantly, the possibility of using the test for identifying a child's specific deficits and mode of learning as a means of selecting a teaching method and planning a remediation program.

Perticone³⁰ considers that teacher evaluation of performance should not be an end product but a means

²⁸ Mark N. Ozer and H. Burt Richardson, Jr., "The Diagnostic Evaluation of Children with Learning Problems: A Communication Process," Childhood Education, 48:247, February, 1972.

²⁹ Lawrence C. Hartlage and David G. Lucas, "Group Screening for Reading Disability in First Grade Children," Journal of Learning Disabilities, 6: 320, May, 1973.

³⁰ Perticone, op. cit., p. 22.

by which the child can be aided to learn. Systematic observation should not be done only at the time report cards are filled out, but long before, when identification of possible problems could prevent failures. Smith³¹ contends that the effectiveness of the educational program depends upon the degree to which the teacher recognizes individual differences in children as being educationally significant and accounts for them in her planning and teaching strategies.

The diagnostic-remedial process usually involves both formal testing and informal evaluation. The teacher is most often the one who carries out the informal techniques. Gunderson³² asserts that the diagnosis of learning disabilities should be a team approach, with the school personnel doing the preliminary screening and identification, and other professional areas completing the evaluation. Hammill³³ outlines four aims of a total evaluation: 1) to identify those children who may experience difficulty in school, 2) to refer the children for appropriate medical attention if necessary, 3) to pinpoint specific areas of

³¹ Smith, op. cit., p. 4.

³² Bernice V. Gunderson, "Diagnosis of Learning Disabilities - The Team Approach," Journal of Learning Disabilities, 4: 49, February, 1971.

³³ Hammill, op. cit., p. 341.

difficulty (including perceptual, motoric, language, academic, physical, and emotional problems), and 4) to investigate problem areas in sufficient depth to determine what remedial steps are necessary. This four step process is ideally handled using a team approach, but in reality, the major burden of the evaluation falls on the shoulders of the classroom teacher. Hammill writes, "Ideally, the total evaluation should be a joint venture to which the school psychologist, teacher, speech therapist, remedial reading specialist, and auxiliary personnel, such as the physician, optometrist, social worker, etc., contribute their unique abilities."³⁴

However, the burden of action remains with the teacher.

Keeping complete records on learning disability cases is one of his major responsibilities. Armed with an organized series of reports, including test results, rating scales, sociograms, anecdotal records, and personal impressions, the teacher is in an excellent position to discuss the particular problem with the school psychologist.³⁵

Strang³⁶ concludes well, "The teacher is the most important member of a team that is concerned with making better readers and better persons."

³⁴ Hammill, loc. cit.

³⁵ Capobianco, op. cit., p. 192.

³⁶ Strang, op. cit., p. 43.

CHAPTER III

DESIGN OF THE STUDY

Sample Selection

All seventeen first grade teachers in the Ashland, Kentucky public schools were asked to refer those children in their rooms who were having difficulty learning. Forty-seven children were referred.

Instrumentation and Data Collection

Upon receipt of the referrals, this writer interviewed every teacher about each child's ability to perform specific tasks. Fifty tasks were selected and written in the form of a questionnaire. The questionnaire, (see Appendix A), was designed to collect answers about cognitive, physical, and physiological tasks or abilities which correlate with reading and learning. To develop the questionnaire, the author used five sources.¹

The teachers were instructed to answer either "yes," "no," or "don't know," as to whether the child can perform the tasks. However, since accuracy of infor-

¹ Harris, Albert J. and Edward R. Sipay, How to Increase Reading Ability (New York: David McKay Co., Inc., 1975), pp. 238-312; Wilma H. Miller, Identifying and Correcting Reading Difficulties in Children (New York: The Center for Applied Research in Education, Inc., 1971), pp. 21-52; Jerome Rosner, Helping Children Overcome Learning Difficulties (New York: Walker and Co., 1975), pp. 27-54; Ruth Strang, Diagnostic Teaching of Reading (New York: McGraw-Hill Book Co., 1969), pp. 167-190; and John A. R. Wilson, ed., Diagnosis of Learning Difficulties (New York: McGraw-Hill Book Co., 1971), pp. 37-134.

nation is necessary for an objective evaluation, each teacher was asked not to respond either "yes" or "no" unless she was certain of her information. As indicated earlier, the researcher believes that the teachers will be sufficiently unsure of their knowledge about the child's ability to perform specific tasks that they will be unable to answer either "yes" or "no" to a significant number of the questions.

After all of the teachers had been interviewed and either a "yes," "no," or "don't know," answer had been obtained for all the questions, the teachers were instructed as indicated earlier in chapter one. This instruction was in the form of a one hour seminar. Each item on the questionnaire was discussed in relation to how it correlates with reading and learning problems, and how the teachers could test or observe the child's ability to perform the tasks. A question and answer session followed. The teachers were then given a blank copy of the same questionnaire for every child about whom they had been interviewed. They were asked to observe, test, and check each item carefully using all the information learned during the seminar.

An arbitrary time period of two weeks was allowed for the teachers to observe the children and perform any tasks with them they needed to complete the questionnaire.

Data Analysis

Upon completion of the questionnaires the results of the first group of data were statistically compared with the second ones, using the student "t" test for correlated samples, to determine whether there was a significant discrepancy between the two. If a significant difference is found, the data would support the stated hypotheses. The hypotheses would be accepted at the .05 level of probability. Specifically, a significant difference would indicate that those first grade teachers tested do not adequately observe a child who is having learning problems to discover his most efficient learning mode, and any factors which may be preventing him from learning; and that the teachers did benefit from only minimal instruction regarding specific factors which correlate with reading and learning problems.

CHAPTER V
FINDINGS AND INTERPRETATION

As stated in chapter one the hypotheses are that:
1) the first grade teachers do not adequately observe a child to discover his best mode of learning and any factors which may presently be hindering him from learning; and 2) that these first grade teachers could learn to better identify learning characteristics and modes with only minimal instruction.

The significance of the above hypotheses has been tested statistically by performing statistical calculations on two different groups of data obtained from the two questionnaires of fifty items administered to 17 first grade teachers in the Ashland Public schools. Out of forty-seven questionnaires distributed to the teachers at the seminar for completion, thirty-nine were returned after the two-week period allotted. Only these thirty-nine were used to determine the findings.

First, only the "don't know" answers of the questionnaires were taken into account (see Table 1). The rationale for this is that this writer believes less "don't know" answers will be given on the second group of questionnaires. To statistically test this difference, the student "t" test for correlated samples was used. The two variables X and Y were constructed.

TABLE 1.

DATA USED TO COMPUTE THE "t" FOR THE FIRST GROUP

<u>Questionnaire</u>	<u>X</u>	<u>Y</u>	<u>Questionnaire</u>	<u>X</u>	<u>Y</u>
1	12	0	21	14	0
2	13	0	22	13	0
3	7	0	23	12	0
4	9	0	24	18	0
5	11	0	25	15	0
6	11	3	26	19	0
7	12	0	27	10	0
8	21	5	28	19	1
9	21	5	29	13	2
10	20	8	30	12	1
11	18	6	31	12	0
12	13	1	32	14	1
13	12	0	33	3	1
14	11	0	34	11	4
15	20	5	35	1	0
16	6	1	36	7	1
17	7	1	37	6	0
18	4	0	38	6	1
19	5	1	39	27	12
20	6	0			

Where: X = "don't know" answers on the first administration of the questionnaire.

Y = "don't know" answers on the second administration of the questionnaire.

The results obtained are as follows:

$$\bar{X} = 12.08, \quad \bar{Y} = 1.54$$

$$S_x = 5.75, \quad S_y = 2.64$$

$$t_1 = 14.55$$

Where: \bar{X} , \bar{Y} are the means of X and Y respectively.

S_x , S_y are the standard deviations of X and Y , and t is the student "t" test.

Second, an arbitrary weight of 2 for the "yes," answers, 1 for the "no" answers, and 0 for the "don't know" answers was given and a series of data has been constructed for the two groups of data (see Table 2). The following variables W and Z have been constructed, where they denote the numerical series of data obtained from the first and second administrations of the questionnaires respectively.

The justification of this is that some teachers, with the knowledge gained from the seminar, had to change their answers in the first administration of the questionnaire from either "yes" to "no" or vice versa; or from

TABLE 2.

DATA USED TO COMPUTE THE "t" FOR THE SECOND GROUP

<u>Questionnaire</u>	<u>W</u>	<u>Z</u>	<u>Questionnaire</u>	<u>W</u>	<u>Z</u>
1	56	74	21	55	80
2	55	80	22	48	70
3	58	66	23	57	81
4	58	73	24	45	64
5	50	69	25	56	79
6	56	65	26	46	72
7	48	60	27	63	77
8	35	67	28	42	64
9	33	63	29	54	76
10	40	60	30	49	64
11	49	65	31	53	74
12	52	74	32	56	77
13	53	76	33	66	70
14	59	81	34	51	63
15	39	69	35	84	82
16	53	50	36	60	72
17	53	61	37	70	86
18	62	78	38	68	82
19	55	74	39	33	61
20	64	70			

"don't know" to either "yes" or "no." Again the "t" test was used to statistically determine if there was a significant difference between the two series of data. The results obtained are outlined below:

$$\bar{W} = 53.44 \quad \bar{Z} = 71.00$$

$$S_w = 10.28 \quad S_z = 7.93$$

$$t_2 = 21.29$$

Where: \bar{W} , \bar{Z} are the means of W and Z respectively.

S_w , S_z are the standard deviations of W and Z,
and t is the student "t" test.

According to Yamane¹, table 3, both groups of data, with 38 degrees of freedom, are significant beyond the five (.05) percent level of probability. In fact both t_1 and t_2 are significant even at the .0005 level of probability.

From these statistical results, it can be concluded that the hypotheses stated previously should be accepted. This means that there is a significant difference between the two different administrations of the same questionnaire, i.e., before and after the one-hour seminar was held.

¹ Yamane, Taro, Statistics, An Introductory Analysis, (New York: Harper and Row, Pub., 1967), p. 878.

At the seminar, all of the teachers were also asked to indicate how many years of teaching experience they had had, and also if they had taken any courses in learning disabilities. The writer wanted to see if these factors had anything to do with the teacher's ability to complete the questionnaires accurately. None of the teachers had had any courses in learning disabilities. With respect to the years of experience, eight teachers had over 15 years of experience, three teachers had between five and nine years of experience, and six had less than five years of experience.

It was observed that the older the teachers, in terms of years of experience, the less able they were to fill out the questionnaires, i.e., they averaged more "don't know" answers, as shown in the table below.

TABLE 3

YEARS OF TEACHING EXPERIENCE AS A FACTOR		
Years of Experience	Number of Teachers	Average of "Don't Know" answers
15 ⁺	8	14
6-10	3	12
5 or less	6	9

Although the reasons for this are uncertain the implications seem to be that the more years of teaching experience a teacher has, the less she observes specific abilities.

Also, perhaps the teacher training curriculums have changed such that the "newer" teachers are more aware of what they should be observing in children who are having difficulty learning. The "more experienced" teachers may also be more cautious in making their answers.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

All seventeen first grade teachers in Ashland, Kentucky were interviewed using a fifty item questionnaire designed to find out how well the teacher knew the child's ability to perform specific tasks. During the interviewing, many teachers made a comment similar to, "I wish I had known what I was supposed to be looking for." After interviewing every teacher, a one-hour seminar was conducted which all first grade teachers attended. The seminar covered how each of the fifty items of the questionnaire correlates with learning and reading problems; and how the teachers could discover the child's ability or inability to perform each task.

Following the seminar the teachers were given a blank copy of the original questionnaire to fill out for every child they had referred. They were given an arbitrary two weeks to observe, test, and check carefully each item. After two weeks thirty-nine of the forty-seven distributed questionnaires were returned and statistical calculations were performed on the two groups of data received. The "t" statistic was used to determine if there was a significant difference in the accuracy of information given between the first group of questionnaires and the second group.

Conclusions

Findings from the statistical calculations performed on data received from the two administrations of the questionnaire revealed that: 1) the teachers do not adequately observe a child to discover his learning characteristics, and any factors which may presently be hindering him from learning, and 2) that the first grade teachers could learn to better identify problems, strengths and modes of learning with only minimal instruction. As a matter of fact, the student "t" test showed a statistically significant difference between the two groups of data far beyond the .05 level of probability (.0005). Therefore, both hypotheses were accepted.

The data collected point out that the initial responses of the teachers on the first administration of the questionnaire, were low compared with the responses on the second administration of the same questionnaire. Due to the very low level of probability in accepting the hypotheses, it can be concluded that the first grade teachers are not adequately observing many factors which correlate with reading and learning problems. However, this study has shown that the teachers can do a much better job with only minimal instruction. The findings have shown that the seminar and subsequent testing which all of the teachers participated in was indeed beneficial for the Ashland, Kentucky first grade teachers.

Recommendations

Immediately following the seminar, the seventeen teachers who attended were asked if they would be interested in taking a course in learning disabilities. It was interesting to note that eight teachers responded that they definitely would want to take a course. Perhaps teacher preparation curriculums, should offer, or even require, all prospective teachers to have a basic course in the various learning disabilities displayed by children who have difficulty learning.

The conclusions of the study seem to indicate that seminars, similar to the one described in this study, and teacher participation, would be worthwhile in all first grade classes. In fact, it is believed by the writer that such seminars and teacher participation would be beneficial at all elementary grade levels.

An inservice day might be well-spent covering the seminar material. A workshop annually would further reinforce what the teachers have learned, and give them a chance to discuss specific problems and solutions.

It is further recommended that similar studies be conducted to determine whether the seminar and teacher participation would be as beneficial elsewhere.

BIBLIOGRAPHY

- Blair, Glenn M. Diagnostic and Remedial Teaching.
New York: The Macmillan Co. 1967.
- Buktenica, Norman A. "Identification of Potential Learning Disorders." Journal of Learning Disabilities. 4:
35. August/September, 1971.
- Burnett, Richard W. "The Diagnostic Proficiency of Teachers of Reading." The Reading Teacher. 16:229.
January, 1963.
- Capobianco, "Diagnostic Methods Used With Learning Disability Cases." Exceptional Children. 31:188.
December, 1964.
- DeChant, Emerald. Diagnosis and Remediation of Reading Disability. West Nyack, N.Y.: Parker Pub. Co. Inc.
1968.
- Early, Margaret J. "What Does Research Tell the Classroom Teacher About the Basic Causes of Reading Disability and Retardation?" from, Reading Disabilities Selections on Identification and Treatment.
ed. Harold Newman. Indianapolis: The Odyssey Press.
1969.
- Education U.S.A. Special Report. Reading Crisis: The Problem and Suggested Solutions. Washington, D.C.:
National School Public Relations Association. 1970.
- Gunderson, Bernice V. "Diagnosis of Learning Disabilities-The Team Approach." Journal of Learning Disabilities.
4:49. February, 1971.
- Hammill, Donald D. "Evaluating Children for Instructional Purposes." Academic Therapy. 6:34. Summer, 1971.
- Haring, Norris G. and Robert W. Ridgway. "Early Identification of Children with Learning Disabilities." Exceptional Children. 33:393. February, 1967.
- Harris, Albert J. and Edward R. Sipay. How To Increase Reading Ability. New York: David McKay Co. Inc.
1975.

- Hartlage, Lawrence C. and David G. Lucas. "Group Screening for Reading Disability in First Grade Children." Journal of Learning Disabilities. 6:320. May, 1973.
- McKnab, Paul A. and Marvin J. Fine. "The Vane Kindergarten Test as a Predictor of First Grade Achievement." Journal of Learning Disabilities. 5:57. Oct., 1972.
- Miller, Wilma H. Identifying and Correcting Reading Difficulties in Children. New York: The Center for Applied Research in Education, Inc. 1971.
- Ozer, Mark N. and H. Burt Richardson, Jr. "The Diagnostic Evaluation of Children with Learning Problems: A Communication Process." Childhood Education. 48:247. February, 1972.
- Perticone, Eugene X. "The Observant Teacher." Academic Therapy. 8:26. Fall, 1972.
- Rosner, Jerome. Helping Children Overcome Learning Difficulties. New York: Walker and Co. 1975.
- Roswell, Florence and Gladys Natchez. Reading Disability, Diagnosis and Treatment. New York: Basic Books, Inc. 1971.
- Rutherford, William L. "From Diagnosis to Treatment of Reading Disabilities." Academic Therapy. 8:54. Fall, 1972.
- Schleichkorn, Jacob. "The Teacher and Recognition of Problems in Children." Journal of Learning Disabilities. 5:55-56. October, 1972.
- Smith, Robert M. Teacher Diagnosis of Educational Difficulties. Columbus, Ohio: Charles E. Merrill Pub. Co. 1969.
- Spache, George D. "Diagnosis of Reading Disabilities in the Classroom." Education Digest. 26:48. November, 1960.
- Strang, Ruth. Diagnostic Teaching of Reading. New York: McGraw-Hill Book Co. 1969.
- Wilson, John A. R. ed. Diagnosis of Learning Difficulties. New York: McGraw-Hill Book Co. 1971. pp. 37-134.

Wilson, Robert M. Diagnosis and Remedial Reading. Columbus, Ohio: Charles E. Merrill Pub. Co. 1967.

Yamane, Taro. Statistics, An Introductory Analysis. New York: Harper and Row Pub. 1967.

APPENDIX A

	yes	no	don't know
IV. Fine-Motor Coordination			
18. can cut on a line with scissors: (coordinates use of both hands)	---	---	---
19. can color well for age (attempts to stay in line, does not press too hard or too softly):	---	---	---
20. holds pencil correctly (2-3 fin- ger grasp with thumb):	---	---	---
21. can button own buttons:	---	---	---
22. can tie a shoelace in a bow:	---	---	---
V. Time Orientation			
23. distinguishes seasons and morning from evening:	---	---	---
VI. Tactile Kinesthetic Ability			
24. can recognize small familiar objects placed in hand and letters written on the pad of the forefinger, with eyes closed:	---	---	---
VII. Memory			
25. appears to have a good memory for what he/she hears:	---	---	---
26. appears to have a good memory for what he/she sees:	---	---	---
VIII. Perseveration			
27. perseverates when writing or speaking:	---	---	---
IX. Visual/Perceptual Abilities			
28. can put a simple puzzle together:	---	---	---
29. has written letter or number reversals: If yes, which _____	---	---	---
30. has written letter or number inversions: If yes, which _____	---	---	---
31. when writing letters are of different sizes:	---	---	---

	yes	no	don't know
32. letters often slant in different directions:	---	---	---
33. can discriminate between letters that look alike:	---	---	---
34. can recall visual patterns, series, and sequences well:	---	---	---
 X. Auditory Perceptual Abilities			
35. seems to confuse words of somewhat similar sounds:	---	---	---
36. can say phoneme of graphemes: if yes, all___, only some___	---	---	---
37. can indicate grapheme of phoneme: if yes, all___, only some___	---	---	---
38. can discriminate between different beginning sounds:	---	---	---
39. middle sounds:	---	---	---
40. ending sounds:	---	---	---
41. can recognize and discriminate between the sounds: s, sh, z, th, f, and v:	---	---	---
42. can blend letter sounds together to form a word:	---	---	---
43. can answer factual questions about a story read to him/her:	---	---	---
44. follows simple directions (1-2) well:	---	---	---
45. can count without losing place:	---	---	---
46. can tap rhythmically alternating hands:	---	---	---
47. can recall auditory patterns, series, and sequences well:	---	---	---
 XI. Speech and Language			
48. has a speech or language problem: underline: too low or too high a voice, stuttering, leaves off parts of words, omits words.	---	---	---
49. has an articulation problem: if yes, which sounds_____	---	---	---
 XII. Copy Forms			
50. can copy drawings or designs well for age:	---	---	---

1991