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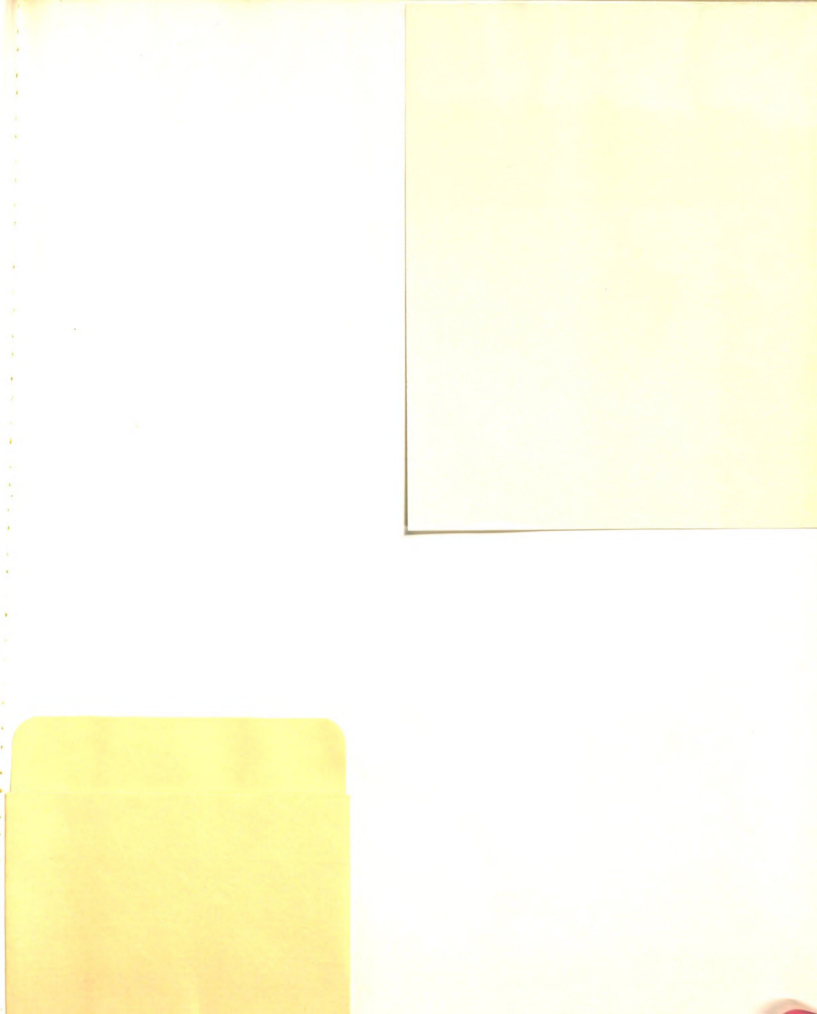
Beverly L. Bixler

has been accepted towards fulfillment
of the requirements for

Ph. D. degree in Elementary Education

Byron H. Van Roebel
Major professor

Date May 11, 1978



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1978

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HANDICAPPING CONDITIONS AMONG LOW

ACHIEVERS IN READING

By

Beverly Lee Bixler

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

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College of Education

1978

January 1971

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ABSTRACT

HANDICAPPING CONDITIONS AMONG LOW ACHIEVERS IN READING

By

Beverly Lee Bixler

The major purposes of the study were to provide a frame of reference for a descriptive profile of a typical student who is referred to a teacher education reading center, and to examine the relationship between specific variables which characterize the low achiever in reading. The data for this study were obtained from case histories of elementary and secondary school students who had been referred to the Michigan State University Reading Center for diagnosis of reading difficulties during the period 1957-1975.

The data were obtained from three questionnaires, School Form, Teacher Form, and Parent Form, which were submitted to the Reading Center for each student prior to an appointment for diagnostic services. Adjunct data were obtained from the Wechsler Intelligence Scale. These instruments provided data on 166 variables for a random sample of 95 students. From among these 166 variables were chosen 21 variables for which complete data were available. The investigation of these 21 variables proceeded with an analysis of the data on a random sample of 640 students classified according to grade placement as follows: grade block 1-12, grade block 1-3, grade block 4-6, grade block 7-8,

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and grade block 9-12. One hundred hypotheses were formulated to test relationships among the 21 variables. Chi-square was used to analyze the data and an alpha level of .01 was selected for rejecting the null hypothesis.

Summary of Findings

The findings are summarized in two parts. First, in accordance with the major purposes of this study, the data provide a descriptive profile of the low achiever in reading; second, a summarization of the significant relationships among 21 specific variables for each of the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 is presented. The 21 variables are as follows: (1) sex of student, (2) Wechsler Verbal I.Q., (3) Wechsler Performance I.Q., (4) Wechsler Full Scale I.Q., (5) nature of the academic problem, (6) adjustment in school environment, (7) school failure, (8) peer acceptance, (9) acceptance by adults, (10) behavior when faced with a difficult task, (11) behavior when faced with a problem, (12) behavior with reference to authority, (13) behavior with reference to leadership, (14) behavior in the classroom, (15) relationship with other students, (16) communication pattern in the classroom, (17) choice of playmates, (18) grade level, (19) absenteeism in each of grades 1-6, (20) females in the family having a reading problem, and (21) males in the family having a reading problem.

The data suggest that the student scheduled for an appointment at a teacher education reading center is most likely to be a white male referral whose scores on the Wechsler I.Q. range in order of increasing magnitude from Verbal to Full Scale to Performance with the Verbal I.Q.

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falling below 100. His age will fall into the 8-10 year bracket and his grade placement will range from grades 4-6.

In social adjustment, he will be perceived as well adjusted and well liked by peers and adults. More likely he interacts to meet the social demands of the school environment by being responsive in his relationship with other children, by choosing children his own age for playmates, by being quiet in his communication pattern, and by being accepting of authority. When faced with a difficult task he will either withdraw from the situation or face the task intelligently, and will be easily discouraged when faced with a problem.

His feelings toward school will probably be ambivalent and he will view the acquisition of reading as such a formidable task that he may perceive it as being unachievable. His progress through school is reasonably continuous but it may be interrupted by the repetition of a grade which if it occurs will take place at either first, second, or third grade placement. He will show the least achievement in reading acquisition and the highest achievement in mathematics. Deficits in reading acquisition will have been noted in first or second grade, and he probably will have received tutorial assistance.

Accordingly, although in some instances this portrayal of a student referral to a teacher education reading center reflects the stereotype characterized in the literature dealing with the low achiever in reading, his profile is more likely to fit the major descriptors of the average student and, thus will be indistinguishable from the profile of his more academically successful peers except for a school history of low achievement in reading acquisition.

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CHAPTER I

INTRODUCTION

You are charged with excessive simplifying! You have spent your life making molehills out of mountains--that's what you are guilty of. When man was tragic, you made him trivial. When he was picaresque, you called him picayune. When he suffered passively, you described him as simpering; and when he drummed up enough courage to act, you called it stimulus and response. What do you plead, guilty or not guilty?¹

This excerpt from Rollo May's book, Psychology and the Human Dilemma, alludes to one of the most difficult problems facing school personnel--ascertaining the essential (mountains) and the non-essential (molehills) in order to make sound educational decisions.

Although the history of reading and writing and other school subjects date back to the Egyptians (2500 B.C.), who analyzed words and syllables into sounds, it is only from the middle of the nineteenth century that one finds in the literature evidence of the application of the scientific method to the study of school learning. Perhaps because reading had for so long been considered a school subject of such great importance, it was only natural that the first applications of the scientific method to education were investigation of reading problems.²

¹Rollo May, Psychology and the Human Dilemma (Princeton, N.J.: De Van Nostrand Company Inc., 1966), p. 4.

²William S. Gray, "Reading," in Encyclopedia of Educational Research, ed. Walter S. Monroe (New York: Macmillan Co., 1950), p. 965.

Psychologists, the first to apply the scientific method in reading research, focused their early attempts on the nature of the reading act, particularly as a perceptual process. Later, lateral dominance, visual anomalies, auditory limitations, physical attributes, methods of learning to read, the value of phonics, nature of reading materials, and multiple causation were among the issues explored. Subsequently, two trends in reading research emerged: "(1) a trend towards more basic research in reading or the explanation of reading phenomena in smaller and smaller units, and (2) a trend towards construction of theoretical models. . . ."³ Hence, the teaching of reading is continually plagued by the inability to ascertain molehills and mountains for it would appear that the researchers concerned with the acquisition of reading are divided--some preferring to investigate a component or fragment believed to be related to the process of learning to read, and others choosing to construct theoretical models which describe the physiological and psychological processes involved in the reading act.

These two trends evolved in the midst of increasing concern regarding the question, "Why is Johnny not reading?" This concern was articulated 22 years ago by Rudolf Flesch in his book, Why Johnny Can't Read.⁴ The controversy created by this book aroused the public and

³Harry Singer, "Theoretical Models of Reading: Implications for Teaching and Research," in Theoretical Models and Processes of Reading, ed. Harry Singer and Robert B. Ruddell (Newark, Del.: International Reading Association, 1970), p. 150.

⁴Rudolf Flesch, Why Johnny Can't Read (New York: Harper and Brothers, 1955).

heightened its awareness of the importance of reading instruction. From the interest stimulated by the book, educators, psychologists, linguists, sociologists, as well as parents, began to formulate their own ideas about the teaching of reading in the schools. Unfortunately, many of these ideas were a matter of opinion and emotion rather than theories based upon accurate observation and reasoning.

Because of external influences such as Flesch's book, the composition of explanations and descriptions of the reading process gradually increased in complexity. Earlier descriptions of the reading process as talk written down were replaced by statements such as Buswell's: "The essential difference between knowing how to read and how to understand oral speech is the substitution of visual perception of printed verbal symbols for the auditory impression of the same symbols when spoken."⁵ Or Anderson and Dearborn's: "Learning to read is primarily a process of associative learning,"⁶ or Harris': "Learning as a product, process, and function has to be considered when discussing the teaching of reading."⁷ Barbe reiterated Harris' statement by saying, "Much of the disagreement about the

⁵Guy T. Buswell, "The Process of Reading," in Teaching Reading: Selected Materials, ed. Walter B. Barbe (New York: Oxford University Press, 1965), p. 6.

⁶Irving H. Anderson and Walter F. Dearborn, The Psychology of Teaching Reading (New York: The Ronald Press Company, 1952), p. 138.

⁷Theodore L. Harris and Wilson E. Schwab, Selected Readings on the Learning Process (New York: Oxford University Press, 1961), pp. 1-3.

teaching of reading is on whether learning to read is a process, function, or product."⁸

The statements of Harris and Barbe strike at the heart of the issue. Even a cursory examination of early attempts to describe the reading act reveals that the literature emphasized the nature of the reading process and attempted to relate physiological traits to failure to learn to read. However, in 1970 Irene Athey gently admonished the classroom teacher by saying, "If we want our children to be intellectually literate, perhaps we should worry less about Johnny's reading ability and more about Johnny."⁹

Need for the Study

If one peruses the voluminous literature relating to the teaching of reading, one could easily be overwhelmed by the sheer number and variety of topics that have been investigated. However, if one weaves together the ideas presented in the various publications, it becomes apparent that in the course of time the literature has focused on causal relationship--why Johnny cannot read, not who Johnny is.

Historically, "men in the medical profession preceded all others in the study of children who had difficulty in learning to

⁸Walter B. Barbe, ed., Teaching Reading: Selected Materials (New York: Oxford University Press, 1965), p. 4.

⁹Irene Athey, "Affective Factors in Reading," in Theoretical Models and Processes of Reading, ed. Harry Singer and Robert B. Ruddell (Newark, Del.: International Reading Association, 1970), p. 114.

read."¹⁰ Among these were surgeons and neurologists who concluded that brain lesions of one form or another were largely responsible for failure to learn to read and for loss of ability to read. Others in the medical profession "attributed the cause of reading retardation to 'congenital alexia' or 'word blindness.'"¹¹

In time, the psychologists became involved and attempted to deal with reading. Accordingly, "more than half of the studies published prior to 1910 were laboratory studies pertaining to the psychology and physiology of reading."¹² Later, in 1930 to be exact, Marion Monroe suggested that both mild and extreme cases of reading retardation were due to one or more, or many causes.¹³ She centered her attention on the following causes:

. . . limited learning capacity, congenital or acquired neurological defects, conflicting cerebral tendencies, poor perceptual habits, ill-health, improper glandular functioning, poor vision or hearing, abnormal emotional reactions, poor environment, and inappropriate teaching.¹⁴

¹⁰ Nila Banton Smith, "Reading: Seventy-Five Years of Progress," in Reading: Seventy Five Years of Progress, Proceedings of the Annual Conference on Reading held at the University of Chicago, ed. H. Alan Robinson (Chicago: University of Chicago Press, 1966), p. 3.

¹¹ *Ibid.*, p. 4.

¹² William S. Gray, "Reading," in Encyclopedia of Educational Research, ed. Chester W. Harris (New York: Macmillan Co., 1960), p. 1087.

¹³ Marion Monroe, Children Who Cannot Read (Chicago: University of Chicago Press, 1932), p. 110.

¹⁴ Helen Mansfield Robinson, Why Pupils Fail in Reading (Chicago: University of Chicago Press, 1946), preface by William S. Gray, p. vi.

In summation, Monroe stressed that "the reading defect is caused by a constellation of factors rather than one isolated factor."¹⁵ It was this notion--that severe reading retardation may be due to a combination of causes--that initiated the work of Helen Robinson in the 1940s. Her book, Why Pupils Fail in Reading, represented a significant signpost in the progress of reading research. She attempted ". . . the first comprehensive survey and appraisal of the significance of various possible causal factors in the case of each of several seriously retarded readers. . . ."¹⁶ Robinson explored the relationship of visual maladjustments, neurological problems, auditory and speech difficulties, physical deficiencies, as well as emotional and personality problems, environmental and social characteristics, and intelligence to achievement in reading.

In the 1950s, Blair attempted to clarify the term "remedial teaching." He explained that the term referred to instructional procedures "based upon a careful diagnosis of defects and causes,"¹⁷ and was "concerned with two types of deficiencies--the presence of bad habits and the absence of good habits."¹⁸ Thus, reading specialists of this era were led to conclude that prerequisite to the identification, description, and treatment of disabled readers was the determination of the causal factors inducing difficulties in reading.

¹⁵ Monroe, p. 110.

¹⁶ Robinson, p. vii.

¹⁷ Glenn Myers Blair, Diagnostic and Remedial Teaching (New York: Macmillan Co., 1956), p. 13.

¹⁸ Ibid., p. 14.

But the phenomenologists warn that "one must cut through the tendency in the West to believe one understands things if one only knows their causes, and describe instead what the thing is as a phenomenon--the experience, as it is given to us in its givenness."¹⁹ Nevertheless, the academicians continued to explore etiological relationships now attempting, however, to describe how the reading act was developed.

One finds intimations of the transition from a focus on why is Johnny not reading to how does Johnny read in Gates' statement in 1947. He wrote that "there is one significant cause, which when it is recognized, makes evident the reasons for difficulty in teaching and learning to read. This is that reading comprises highly complex abilities, that are not easily detected and observed."²⁰ Ruddell concurred by stating, "Many essential informational areas which are required to explain the multitude of interactions which occur during the reading process are blank."²¹ To compensate for the absence of such essential informational areas in explaining the reading act, theoretical models were created by modifying theories in an attempt to integrate the variables that influence the perception, recognition,

¹⁹ May, p. 88.

²⁰ Arthur J. Gates, The Improvement of Reading (New York: Macmillan Co., 1947), p. 3.

²¹ Robert B. Ruddell, "Language Acquisition and the Reading Process," in Theoretical Models and Processes of Reading, ed. Harry Singer and Robert B. Ruddell (Newark, Del.: International Reading Association, 1970), p. 15.

comprehension, and utilization of printed stimuli. Each of the models served to illuminate a small facet of the reading act, as each author sought to describe the reading process.

Geyer stated that his model could enable one to say that "reading is not a matter of an instantaneous recognition of the contents of a visual span, but is rather a function of the interaction of complex systems over time."²² He called attention to experimental psychology and said that cognitive psychology takes as its central function the study of the processes by which ". . . the sensory input is transformed, reduced, elaborated, stored, recovered, and used. Since this function on the visual-verbal dimension could serve as a definition of reading . . . it bears close watching by anyone interested in understanding reading phenomena."²³

Ruddell's contribution was to recognize the following four significant factors:

First, the child's ability to comprehend language precedes and exceeds his ability to produce language. Second, his language comprehension appears to be a direct function of his control over the grammatical and lexical components of the discourse. Third, his language competence and performance appear to move through a developmental sequence during the elementary school years which in some respects parallels the competency model proposed by the transformational grammarians. And, fourth, his language performance is directly related to his language environment, including the available language model and opportunity for

²² John J. Geyer, "Models of Perceptual Processes in Reading," in Theoretical Models and Processes of Reading, ed. Harry Singer and Robert B. Ruddell (Newark, Del.: International Reading Association, 1970), p. 85.

²³ Ibid., p. 47.

language interaction, his comprehension strategies and objectives, and possible maturation of his latent language structures.²⁴

On the other hand, Singer was concerned with a theory which would serve as a cognitive map for improving development of speed and power of reading.²⁵ He suggested that a longitudinal investigation be undertaken based upon a theory of the hierarchical structure of learning and a comprehensive set of objectives. He further suggested that one seek to construct a comprehensive pattern of the "common routes to maturity around which individuals vary"²⁶ and to determine how these common routes interact with the personality of the individual, his environmental influences, and his biological support systems.

Stauffer emphasized reading as cognitive functioning and "a process akin to thinking."²⁷ He attempted to prod us forward with the idea that reading is a thinking act with its roots in action.

Yet as each model developed and new theories were formulated, one is reminded once again of the call of the phenomenologists to describe

. . . what the thing is as a phenomenon--the experience, as it is given to us, in its givenness. First, that is, we must know what we are talking about. This is not to rule

²⁴ Ruddell, p. 15.

²⁵ Singer, p. 175.

²⁶ Ibid.

²⁷ Russell G. Stauffer, "Reading as Cognitive Functioning," in Theoretical Models and Processes of Reading, ed. Harry Singer and Robert B. Ruddell (Newark, Del.: International Reading Association, 1970), p. 124.

out causation and genetic development. Rather, it is to say that the question of why one is who one is does not have meaning until it is known who one is.²⁸

Accordingly, the question of why one has a reading disability does not have meaning until it is known who one is. Thus, one comes to the all-important question, "Who is the child who has a reading disability?"

In the past, in the effort to transform the art of teaching to the science of teaching, educators borrowed such terms as "symptoms" and "causes" from the medical profession. They attempted to clarify, categorize, and label children so as to identify the "problems" in education. David M. Nolan states:

Aside from organizational matters the biggest educational problem the new administration has is the regulations for the handicapped children act. No one, so far, has been able to come up with an acceptable formula or definition of a learning disability which the law says is covered by the act.²⁹

In the effort to help children, the knowledge of who the child is has been obscured. The terms or labels, such as, mentally deficient, hyperactive, emotionally disturbed, dyslexic, perceptual-motor, hyperkinetic, etc., have only added to the confusion. Instead of aiding in differentiating the children who have difficulty in learning, the terms have overlapped or become diffused as each group of educators uses them in different ways. What the classroom teacher calls a learning disability is different from the special education teacher, the reading teacher, the state department, or the "specialist." What is

²⁸ May, p. 88.

²⁹ David M. Nolan, "Washington Notes: The New Administration," NCME Measurement News 20 (Spring 1977): 5.

needed is to perceive the child in a different way. One needs to understand that the make-up of the child evolves from three influences, unique hereditary factors, unique environmental factors, and unique self; one needs to see the child as a person who has, potentially,

. . . the ability not only to know but to know that he knows, who has a sense of right and wrong, good and bad, who has esthetic urges, historical awareness, metaphysical concerns as well as the behavioral characteristics such as language, tool making, and culture making.³⁰

Each child represents more than a "problem" to be solved, a cause to be remedied, a symptom of a changing society, or a challenge into the unknown.

Statement of the Problem

The problem for this study evolved from the fact that an investigation of the child from a different perspective--in a wholeness over a period of time--is needed. These two requirements were met by the Michigan State University Reading Center which was first established in the Fall of 1956 by an act of the Michigan State University Board of Agriculture--predecessor to the current Board of Trustees.

Thus, the major problem of the present study was to provide a frame of reference for a descriptive profile of a typical student who is referred to a teacher education reading center, and to examine the relationship between specific variables. The data were gathered within an 18-year period for students ranging from grades one to twelve

³⁰G. Marian Kinget, On Being Human (New York: Harcourt Brace Jovanovich, 1975), pp. 3-4.

who were referred for testing at the Michigan State University Reading Center.

The primary instruments used were three questionnaires: School Form, Teacher Form, and Parent Form. The School Form and the Teacher Form were not changed over the 18-year period, but the Parent Form underwent alterations three times. A secondary instrument was the Wechsler Intelligence Scale.

In all, 166 variables were obtained from the instruments. Data concerning the 166 variables were collected for a random sample of 95 students. A frequency distribution was calculated on the responses.

From the 166 variables, 21 variables were chosen. Selected data from all three instruments as well as from the Wechsler Intelligence Scale were gathered for a random sample of 640 students. This random sample was divided into grade blocks, 1-3, 4-6, 7-8, and 9-12. One hundred hypotheses were formulated in order to test specific relationships between the 21 variables. The responses were analyzed using the chi-square analysis to determine the relationships.

An alpha level of .01 was set for rejecting the null hypotheses. Further elaboration of these variables and the specific null hypotheses are included in Chapter VI.

Some cautions to be observed by the reader of this dissertation are the following:

1. The random sample of students was mainly caucasian and middle class, therefore, not representative of the general population. No attempt was made to have a stratified random sample by age, grade, sex, or intelligence.

2. Causal factors were not part of the inquiry in this study; rather relationships between certain forms of behavior and certain attitudes were investigated.
3. The behavior analysis of the student was limited to information obtained from the Teacher and Parent Forms. Thus, biases may have been present.
4. No attempt was made to use data from diagnostic tests administered to the student.
5. The study was concerned only with students in grades one to twelve who had been referred to the Michigan State University Reading Center and who lived in the State of Michigan within a five-hour driving radius of the campus.

Assumptions

The following assumptions were made:

- The three questionnaires, namely, School Form, Teacher Form, and Parent Form, were sufficiently reliable and valid.
- The data submitted to the Michigan State University Reading Center from the School Form, Teacher Form, and Parent Form were an accurate description of the student and his environment.
- The study may be generalized to teacher education reading centers who serve primarily rural or town districts.

Organization of the Study

The study is composed of eight chapters. The related literature is reviewed in Chapter II. A description of the research design involving a random sample of 95 students diagnosed at the Michigan State University Reading Center, including the related procedure and instrumentation, is presented in Chapter III. The results of the descriptive study for 95 students are presented in Chapter IV. The regression analysis for the 95 students is presented in Chapter V. A description of the research design involving a larger random sample

of 640 students diagnosed at the Michigan State University Reading Center, including the related procedure, instrumentation, hypotheses, and statistical analysis, is presented in Chapter VI. The results of the study of the 640 students are presented in Chapter VII. The summary of the complete study, discussion of the findings, and recommendations for future research are included in Chapter VIII.

CHAPTER II

REVIEW OF LITERATURE

Research in reading began in the laboratories of Europe midway in the nineteenth century, and by the advent of the twentieth century, 14 scientific studies related to reading had been published in England and the United States.¹ The interest created by these studies led to the avalanche of research in reading that was to be reported in the first seven decades of the twentieth century. Although opinions vary, it appears reasonable to estimate that at least 7,000 careful, scientific studies of the physiology, sociology, and teaching of reading are available. A 1960 estimate by W. S. Gray accounted for some 4,000 investigations.² Theodore L. Harris in 1969 estimated that more than 1,400 investigations were reported in the decade 1957-67.³ An extrapolation of these estimates suggests that in the period 1967-77 at least another 1,600 studies have been reported.

In view of the broad scope of the literature on reading research and the purpose of the present study, this chapter on the review of the

¹William S. Gray, "Reading," Encyclopedia of Educational Research, revised ed. (New York: The Macmillan Co., 1950), p. 1096.

²Daniel H. Russell and Henry R. Fea, Handbook of Research on Teaching (Chicago: Rand McNally and Co., 1963), p. 865.

³Theodore L. Harris, "Reading," Encyclopedia of Educational Research, 4th ed. (London: The Macmillan Co., 1969), p. 1069.

literature is necessarily delimited. Readers who wish to be informed about this research are referred to the following sources for a survey of the field:

1. Educational Records Bulletin No. 32 (1941), No. 46 (1946), No. 64 (1955), and No. 75 (1960) prepared by Arthur Traxler with the assistance of the staff of the Educational Records Bureau;
2. Supplementary Educational Monographs No. Investigations Relating to Reading by William S. Gray;
3. Summary of Reading Investigations (1925-1932), Journal of Educational Research 26 (1933): 401-423. (Similar summaries published yearly in the February issue of the same journal, 1934-1960);
4. Encyclopedia of Educational Research, 1940, 1950, 1960, and 1969;
5. Handbook of Research on Teaching, 1963 and 1973;
6. Reading Research Quarterly which includes periodic summaries of investigations in reading;
7. Eric-Crier basin references;
8. Summaries prepared at the Southwest Regional Laboratories;
9. Publications of the International Reading Association, The Reading Teacher and Journal of Reading; and
10. Reports by Davis (1971) and Corder (1971), the first part of a U.S. Office of Education supported project--Targeted Research and Development Program on Reading.

For editorial reasons, Traxler found it convenient to organize the reported research according to 20 general categories. These were:

1. reading readiness and beginning reading;
2. reading interests;
3. reading in connection with other school subjects;
4. the vocabulary and content of elementary school readers;

5. vocabulary lists and vocabulary building;
6. phonics;
7. reading tests and testing procedures;
8. speed of reading;
9. eye movements and reading ability;
10. visual, auditory, and speech defects;
11. dominance, handedness, eyedness, and reversals;
12. relationship between reading achievement and other factors;
13. activity programs and reading achievement;
14. hygiene of reading;
15. diagnosis of reading difficulties;
16. remedial and corrective teaching of reading;
17. developmental reading;
18. various aspects of reading;
19. various aspects of reading bibliographies and summaries; and
20. books and monographs on reading and the teaching of reading.⁴

Even a cursory examination of these categories suggests that very little of the research involved children referred to special agencies for remediation in the acquisition of reading. A pursual of the literature reveals that a significant majority of these studies investigated single variables assumed to be essential to the reading act. Studies were designed to test instructional treatment, to compare

⁴Arthur E. Traxler, Eight More Years of Research in Reading, Educational Records Bulletin No. 64 (New York: Educational Records, 1955), p. 2.

high and low achievement in reading, to identify the cognitive aspects of reading acquisition, etc. However, reports of studies involving children in a clinical setting proved to be relatively infrequent.

The forerunner of studies involving children in a clinical setting appears to have been designed by Marion Monroe in 1936. Although the children were not enrolled in agencies providing remediation, they were selected because they were judged to have "special reading defects." Four hundred and fifteen children with reading deficits were compared with a control group of 101 school children in an average United States school population in an attempt to identify the causal factors for a child's failure to learn to read by utilizing the following data: "(1) the educational profile and reading index; (2) the profile of errors; (3) tests of various discriminations involved in reading; and (4) the social, physical, psychological, and psychiatric data."⁵ The evidence which was secured indicated that both mild and extreme cases of reading retardation may be "caused by a constellation of factors rather than by one isolated factor."⁶

Helen Robinson (1946) coordinated the first comprehensive investigation of causal factors concerning reading retardation. In order to make a complete evaluation of 30 poor readers enrolled, she enlisted the services of the following specialists: "a social worker,

⁵Marion Monroe, Children Who Cannot Read (Chicago: The University of Chicago Press, 1932), p. 4.

⁶Ibid., p. 110.

a psychiatrist, a pediatrician, a neurologist, three ophthalmologists, a speech-correction specialist, an otolaryngologist, an endocrinologist, a reading specialist, and the investigator who acted as a psychologist and reading technician."⁷ In this study an attempt was made to look "at the child as a whole and evaluate each separate finding in the light of the total picture."⁸ One of the major conclusions found "that the mere presence of anomalies does not justify the conclusion that they are causes of reading failure."⁹ "An anomaly found with one child may be insignificant when all other findings are considered, whereas in another instance with a different constellation of causes, the same anomaly may take on much greater significance."¹⁰

Robinson suggested that great care must be exercised in identifying symptoms, for one symptom may indicate any one of several causes. Thus, the challenge for further research in identifying a pattern of symptoms or sets of symptoms which would describe the reading disability was set forth.

These two studies relate directly to the present study because the findings reflect the historical development of research involving children in a clinical setting. The present study resembles the studies by Robinson and Monroe in that it investigates children who

⁷Helen Mansfield Robinson, Why Pupils Fail In Reading (Chicago: The University of Chicago Press, 1946), p. 3.

⁸Ibid., p. 3.

⁹Ibid., p. 221.

¹⁰ Ibid., p. 235.

have reading disabilities and it has an ultimate aim--seeing the child as he relates to his environment and evaluating each separate finding in the light of the total perspective.

CHAPTER III

DESIGN FOR GENERATING HYPOTHESES

The study was designed to incorporate two major aspects of research: (1) generating hypotheses, which are described in this chapter; and (2) testing hypotheses, which are described in Chapter VI.

This portion of the study, which involved a sample of 95 students, sought to generate hypotheses which would provide a frame of reference for a descriptive profile of a typical student referred to a Teacher Education Reading Center. The data for this study were obtained from case histories of elementary and secondary school students who had been referred to the Michigan State University Reading Center for diagnosis of reading difficulties during the period 1957-1975. The population, a pilot study, sampling, instrumentation, and data analysis used in the study are described in the present chapter.

Population

The population for both segments of this study consisted of 1,790 students diagnosed at the Michigan State University Reading Center from 1957-1975. These students were diagnosed by persons who were pursuing a graduate degree in Reading Instruction and were employed as diagnosticians.

For a student to be included in the study, the following criteria had to be met.

1. The student must have been enrolled in elementary or secondary school at the time he was diagnosed.
2. The student must have been enrolled in a regular classroom.
3. The student's case folder must have included the following sources of information: School Form, Teacher Form, Parent Form, Wechsler Intelligence Scale, and the diagnostic report.

Geographical characteristics of the students comprising the population for this study reveal that 91.6 percent were affiliated with public schools and 8.4 percent with private schools, and that the affiliation of these students was distributed among 447 public schools and 41 private schools centered in 130 different municipalities in 41 of the 68 counties in the lower peninsula of Michigan (see Figures 1-7).

A very high proportion of the population were referrals from 64 municipalities in 14 counties within a 50-mile radius of Michigan State University. Nine of these counties accounted for 92 percent of the referrals: Calhoun (28 students); Clinton (163 students); Eaton (119 students); Ionia (73 students); Jackson (57 students); Kent (33 students); Ingham (895 students); Livingston (52 students); and Shiawassee (46 students). During the time intervals covered by this study, the number of referrals from these counties increased as follows: 88 percent of the students (1957-1960), 92 percent of the students (1961-1965), 92 percent of the students (1966-1970), and



Figure 3. Number of students from each county in Michigan referred to the Michigan State University Reading Center.



95 percent of the students (1971-1975). The geographical breakdown of the counties, towns, schools (public and private) and students by year blocks are found in Tables 1 and 2.

The Michigan State Department of Education classifies school districts in Michigan according to five major community types: (1) metropolitan core cities, (2) city districts, (3) town districts, (4) urban fringe districts, and (5) rural districts (Figures 8 and 9). The school districts, from whence the referrals included in the population for this study came, are listed in accordance with the classification scheme initiated by the Michigan State Department of Education in Figures 8 and 9. Of the public school communities served by the reading center, 9 were metropolitan core cities, 10 were city districts, 25 were town districts, 26 were urban fringe districts, 51 were rural districts, and 3 were unknown. Of the private school communities served by the reading center, 7 were metropolitan core cities, 4 were town districts, 7 were urban fringe districts, and 5 were rural districts, with 1 referral from a city district.

Pilot Study

In order to ascertain the characteristics of the population and to determine the nature of the categories that would be critical for analysis, a pilot study was conducted. Using a table of random numbers, a sample of one for each year (1957-1975) was drawn from the 1,790 cases in the population. The results of the pilot study indicated that in order to program the data for computer analysis

Table 1. Geographical breakdown by counties, towns, and public schools for students referred to Michigan State University Reading Center

County: Town, and Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
Barry County:									
Hastings	58	92.8	town			1		1	1,300
Hastings, 9-12				2			1	3	450
Southeastern, K-6									
Hickory Corners	62	99.2	rural	2				2	432
Kellogg, K-5									
Nashville	37	59.2	rural	1			2	1	
Barryville				1				1	
Fuller St.								2	
Nashville				1				1	
Woodland	47	75.2	rural						
Woodland Comm.				5				5	
Lakewood					2			2	
Bay County:									
Bay City	82	131.2	metropolitan		1			1	650
Adam Kolb Int. 6-8							2	2	739
Washington, 6-8									
Essexville	82	131.2	urban fringe						
Garber, 9-12						1		1	800
Bush, K-6						1		1	350
Viola Verellen, K-6				1	1			2	350
Berrien County:									
Benton Harbor	118	188.8	city			1		1	
Fair Plain Jr. H.S., 7-8				1				1	
Fair Plain Central									
Bridgman	135	216.0	rural			1		1	
Bridgman Pub. Sch.									
St. Joseph	118	188.8	city						
Brown, K-6						1		1	312
Branch County:									
Coldwater	68	108.8	town						
Coldwater State									
Home and Training						1		1	
Quincy			rural						
Quincy H.S.					1			1	555
Jennings Elem.				1	1			2	695
Calhoun County:									
Albion	40	64.0	city						
Washington Gardner, 6-8						1		1	801
Springport Mid. Sch.						1		1	
Crowell, K-5						5		5	305
Dairymaple, K-5						1		1	426
Harrington, K-5						1		1	425
North, K-5				1		1	1	3	348
Wright					1	1		2	
Battle Creek	47	75.2	metropolitan						
Lakeview, 9-12				1				1	1,750
Woodrow, 6-8						1		1	525
Lincoln, K-6							1	1	290
Minges Brook					1	1		2	430
North Penfield, K-4						2		2	210
Poulsan						1		1	234
Riverside, K-5				2	1			3	440
Territorial, K-5					1			1	390
Homer			rural						
Homer Sr.				1				1	376
Homer Jr.				1				1	573
Cass County:									
Union	109	174.4	rural						
Union				1				1	
Cheboygan and Presque Counties:									
Onaway	186	297.6	rural						
Onaway, 7-8							1	1	270
Clare County:									
Clare	80	128.0	town						
Clare H.S.				1				1	622

Table 1--Continued

County: Town, and Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
Clinton County:									
Bath	10	16.0	urban fringe						
Bath, 10-12				1			2	3	294
Bath, 7-9						2	2	4	352
Bath, K-6				3	4	3	6	16	732
Bath Comm. Sch.						2		2	
James Couzens Agric.				5	2			7	
DeWitt	8	12.8	urban fringe						
DeWitt, 9-12					1	1		1	600
DeWitt, 6-8					1	3	2	6	500
DeWitt, E.				1	1			2	
Fuerstenau, E.						3	2	5	300
Griswold, E.					1	3		4	
Scott, K-3						5	7	12	500
Wilson Ave., E.						1	1	2	
Lemm					1			1	
Valley Farms								1	
Eagle	14	22.4	rural			1		1	
Wacosta							1	1	
Elsie									
Mead				1				1	
E.E. Knight, E.							2	2	
Eureka	30	48.0	rural						
Eureka, E.							1	1	
Fowler	28	44.8	rural						
Fowler, 9-12						1	1	2	250
Waldron, K-8							1	1	550
Hubbardston	37	59.2	rural	1				1	
Pewamo	32	51.2	rural						
Pewamo-Westphalia, E.							1	1	
St. Johns	18	28.8	town						
St. Johns, 9-12				3			2	5	1,400
R.B. Wilson, 6-8						1	1	2	700
Central, E.				2		2	1	5	410
Riley, 1-6							2	2	365
Perrin-Palmer, K-4						4		4	260
Swegles, K-5				1		2		3	250
Eureka, K-6							2	2	190
East Ward, 1-4				1				1	
Richmond						2		2	
Central, Jr.					1			1	
Clapman				1				1	
West Cass				1				1	
Simmons					1			1	
Eaton County:									
Bellevue	26	41.6	rural						
Bellevue Comm.				4				4	
Charlotte	22	35.2	town						
Charlotte, 9-12				4				4	
Charlotte, 6-8				2		1		3	1,022
Galewood, K-5				2	1	2	1	6	321
Lamie				1				1	
McCintri				1				1	
Munson				1				1	
Parkview, K-5							1	1	597
Quantrell				1				1	
Southridge, K-5				1	2	1		4	255
Washington, K-4				3	1			4	251
Weymouth, K-5						1		1	281
Diamondale	8	12.8	urban fringe						
Diamondale, Sr.				1				1	
Diamondale, E.						1	1	2	
Diamondale, Holt						1		1	
Eaton Rapids	17	27.2	town						
Eaton Rapids, 10-12					1		2	3	808
Eaton Rapids, 7-9						2		3	900
King, K-6					1	2		3	515
Northwestern, K-6						4		4	513
Southeastern, K-6							1	1	459
Union, K-6						1	2	3	365
Eaton Rapids Elem.				2			1	3	

Table 1--Continued

County: Town and Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
<u>Eaton, Clinton, Ionia</u> <u>Counties:</u>									
Grand Ledge	14	22.4	urban fringe						
Grand Ledge, 9-12				3	2	2	2	9	1,925
Hayes, 6-8						2	3	5	837
Sawdon, 6-8						3	3	6	656
Delta Center, K-5						3	1	4	520
Delta Mills, K-5				1		1	2	4	330
Greenwood, K-5						2		2	312
Hayes, K-5						4	8	12	324
Holbrook, K-5						2	1	3	308
Neff, K-5				1				1	285
Wacousta, K-5						2	3	5	384
Union Grand Ledge				3				3	
Partlow					1			1	
Grand Ledge, Jr.						1		1	
Olivet	36	57.6	rural	1				1	
Olivet Comm. Sch.									
Pottersville	15	24.0	rural						
Pottersville, 9-12							1	1	270
Pottersville, 5-8						1	1	2	302
Pottersville, K-4				5	1	1	1	8	344
Vermontville	33	52.8	rural						
Vermontville Comm.				1				1	
Maplewood, K-6					1			1	471
<u>Genesee County:</u>									
Flint	50	80.0	metropolitan						
Bryant, 7-9						1		1	802
Carmen Park, K-6				1				1	228
Van Campen				1				1	
Grand Blanc	55	88.0	urban fringe						
Grand Blanc, 9-12				1				1	2,843
Perry, 6-8							1	1	1,160
Lennon	36	57.6	town						
Doyle Knight							1	1	
Swartz Creek	42	67.2	urban fringe						
Mary Crapo, 1-5						1		1	186
<u>Grand Traverse County:</u>									
Traverse City	171	273.6	city						
Traverse Hts., K-6						1		1	329
<u>Gratiot County:</u>									
Alma	49	78.4	town						
Wright Ave., K-5					1			1	267
Ashley	34	54.4	rural						
Ashley Comm. Sch.							1	1	
Ovid	40	64.0	rural						
Ovid, E.				1		2		3	
Green							1	1	
North, E.							3	3	
Ovid East							1	1	
Ovid Elsie						1		1	
<u>Hillsdale County:</u>									
Jonesville	65	104.0	rural						
Williams, E.				2				2	
Jonesville Comm.					1			1	
Litchfield	58	92.8	rural						
Litchfield Comm., 8-12							1	1	320
Reading	72	115.2	rural						
Reading				1				1	
<u>Huron County:</u>									
Elkton	151	241.6	rural						
Elkton, E.						1		1	
<u>Ingham County:</u>									
Dansville	21	33.6	rural						
Dansville Agric.						2		2	

Table 1--Continued

County: Town and Schools	Distance From Michigan State University		Community Classification	Students By Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
Ingham--Cont.									
East Lansing			urban fringe						
East Lansing, Sr.				5	3	2	2	12	1,573
East Lansing, Jr.				13	1	2		16	
J. A. Hannah, Jr.					3	4		7	490
C. E. MacDonald, 6-8						2	2	4	653
L. H. Bailey, K-5				4	4	3		11	216
Central, K-5				5	1	1	1	8	148
Wa. Donely, K-5					1		3	4	283
Glencairn, K-5				13	2	3		18	206
Island St.				1				1	
Marble, K-5				5		6	2	13	300
Phillips				1				1	
Pinecrest, K-5					2	7	5	14	450
Red Cedar, K-5				2	1	8	2	13	206
Spartan Village, K-5						2	2	4	284
Whitehills, K-5					2	5	3	10	141
Haslett	7	11.2	urban fringe						
Haslett, 9-12						1		1	659
Haslett, 6-8						2	4	6	484
Haslett, E.				2	1			3	
Haslett Central				1				1	
Murphy, K-5					3	5	1	9	420
Perry					1			1	
Ralya, K-5						1		1	148
Wilkshire, K-5				1		1		2	314
Holt	10	16.0	urban fringe						
Holt, 9-12				5		1		6	1,397
Holt, 7-8						5	1	6	774
Diamondale, K-6						2		2	491
Elliott, K-6				1		6	3	10	436
Midway, K-6				1	6	2	1	10	501
Sycamore, K-6				1	5	4	2	12	547
Wilcox, K-6				1			4	5	450
Lansing	2	3.2	metropolitan						
Eastern, Sr.				6	2			8	1,840
Everett, Sr.				1	1	1	1	4	1,715
Hill, Sr.							2	2	1,210
Sexton, Sr.				1	3	5	1	10	1,590
Gardner, Jr.						3	10	13	1,440
C. W. Otto, Jr.				2	5	6	2	15	1,490
Pattengill, Jr.					3	3	7	13	1,230
D. Rich, Jr.					2	2	19	23	1,580
W. French				1		3	5	9	1,090
West, Jr.					1			1	
Allen, E.						2	1	3	353
Attwood, E.						1		1	588
Averill, E.						2	5	7	469
Barnes, E.				2	1	2	2	7	273
Bingham, E.					2	1	4	7	286
Cumberland, E.				1	1	3	5	10	386
Elmhurst, E.				2	1	5	10	18	439
Everett, E.				1		1	2	4	349
Fairview				2		3	2	7	359
Forest Road					1	1		2	163
Foster				1	1	2	2	6	326
Harley Franks						2		2	325
Genesee				1	1	1	1	4	282
Gier Park						3	2	5	463
Grand River				1				1	330
Gunnisonville					1	2	2	5	253
High						2	1	3	367
Holmes				1		2		3	359
Horsebrook				1	3	1		5	170
Kandon					1	1	6	8	320
Levton				1	3	8	8	20	302
Lyons				2	1	4		7	246
Main				3	2	2	2	9	203
Maple Grove					1	3		4	484
Maple Hill							1	1	187
Maplewood				2				2	338

Table 1--Continued

Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
Ingham--Cont.									
Lansing--Cont.									
Michigan				1	1	1	1	2	221
Moore's Park				2	3	1	4	10	289
Mt. Hope				4	2	4	5	15	405
North				1	4	3	1	9	529
Northwestern					1	2		3	320
Oak Park				5	2	2	3	10	224
Pleasant Grove				2	1	6	1	10	431
Pleasant View						8	6	14	625
Post Oak							12	12	390
Reo				4	2			6	435
Sheridan Road				1	6	4	3	14	493
Valley Farms						4	3	7	253
Verlinden					1	7	3	11	315
Wainwright							1	1	590
Wexford						6	2	8	372
Willow							2	2	510
Woodcreek							4	4	467
Delta Center						1		1	
Delta Mills				2				2	
Bretton Woods				3				3	
Community School					1			1	
Gabriels, Sr.				1	2			3	
Kalamazoo St.									
Leslie	18	28.8	rural	1				1	
Leslie, 10-12				1				1	
Leslie					1	1		2	
Woodworth									
Mason	14	22.4	town						
Alaidden, K-5				1	1	6		8	350
Canaan				1				1	
Cedar, K-5				2	3	3	2	10	430
Curtis				1				1	
Jefferson, 6				1			3	4	300
Mason, 7-9				2	3			5	910
Mason, 10-12				2				2	835
Aurelius, K-5						2		2	400
Ralfe				1				1	400
Steele, K-5				1	1	6	1	9	400
Okemos	10	16.0	urban fringe						
Central, K-5				4	3		6	13	495
Central, Jr.				1	1			2	
Cornell, K-5				7	8	8	2	25	319
Edgewood, K-5						2	3	5	332
Elmwood						3		3	
Kinawa, 6-8						1	5	6	815
Okemos Consolidated				1				1	
Okemos, 9-12				5	1	1	4	11	1,116
Okemos, Jr.				5	1			6	
Wardcliff, K-5				6	7	12	2	26	275
Onondaga	28	44.8	rural						
Camp Highfield						3		3	
Stockbridge	35	56.0	rural						
Smith					3			3	663
South							1	1	
Waverly									
Colt						1		1	
Elmwood							2	2	
Winans						1		1	
Windmere Park					1	5	2	8	
Webberville	27	43.2	rural						
Webberville, K-4				1				1	330
Webberville, 5-12				1			1	2	500
Williamston	20	32.0	town						
Memorial, K-2					1	1	7	9	377
Much				1				1	
Riverview, 3-5						2	7	9	406
White Dog						1		1	
Williamston					5		1	6	
Williamston, 6-8					2	2	6	10	484
Williamston, 9-12					3	1		4	656

Table 1--Continued

County: Town and Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
<u>Ionia County:</u>									
Belding	53	84.8	town	1				1	
Belding Area School				5				5	335
Hallpack, K-5									
Ionia	38	60.8	town						
Emerson, K-6							1	1	350
Ionia, 9-12				1		1		2	1,200
Muir	39	62.4							
Lyons Muir				1				1	
Mulliken	22	35.2							
Mulliken				1				1	
Portland	25	40.0	rural						
Portland, 9-12				5				5	
Westwood, K-5							1	1	
<u>Jackson County:</u>									
Brooklyn	55	88.0							
Brooklyn Comm., K-6				1				1	545
Grass Lake	45	72.0							
Grass Lake, 7-12							1	1	447
George Long, K-5						2		2	424
Hanover-Horton	50	80.0	rural						
Hanover-Horton, 7-12						1		1	410
Horton, 1-2				1				1	200
Jackson	38	60.8							
Ackerson							3	3	
Bennett, K-3						2		2	
Cascades, K-3					1	1		2	
Clement						2		2	
Clement Pub. Sch.				1		2		3	
Crouch				1				1	
East Int.							1	1	
East Jackson, 5-8						1		1	
East Jackson Mem.				1				1	
Flora List, K-5					2	1		3	
Floyd Ave.						1		1	
Frost, Jr.				4	1			5	
Hunt, Jr.						1		1	
Jackson, Jr.						1		1	
Leslie, E.						1		1	
Lincoln, K-3							1	1	
Northwest, 10-12								1	
Trumbull, K, 4-12								1	
Trumbull, K, 4-12							2	2	
Warner					1			1	
Woodworth				1				1	
Woodville				1				1	
Michigan Center	43	68.8							
Michigan Center, 9-12						1		1	687
R. Keicher, K-5				1		3		4	330
Parma	48	76.8							
Campbell, Jr.					1			1	
Parma, K-5					1		2	3	364
Western, 8-12							3	3	917
Spring Arbor	44	70.4							
Warner School				1				1	
Springport	22	35.2	rural						
Springport, K-4				1		2		3	439
<u>Kalamazoo County:</u>									
Vicksburg	85	136	rural						
E. Prairie, 7-8							1	1	570
<u>Kent County:</u>									
Cedar Springs	78	124.8	rural						
Griswold					1			1	
Comstock Park									
Comstock Park				1				1	
East Grand Rapids	64	102.4	urban fringe						
East Grand Rapids, 9-12				1				1	1,328

Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
Kent--Cont.									
Grand Rapids	64	102.4	metropolitan						
Alger, K-6					1	1		2	451
Beckwith, K-6				1				1	346
Cumming				1				1	
D. W. Richardson, 1-3				2				2	84
Forest Hills, Sr.				6				6	
Hillcrest, K-6					1			1	370
Martin, K-3							1	1	102
Roger, Sr.				2				2	
Shawmut Hills, K-6				1				1	
Wyoming Park, Sr.				1				1	
Granville	69	110.4	urban fringe						
Cummings, K-6						1		1	500
East, K-6						1		1	310
West, K-6						3		3	350
Lowell	50	80	town						
Lowell Public School				3				3	
Lake County:									
Luther	100	160			1			1	
Luther Comm.									
Lapeer-Oakland County:									
Oxford	57	91.2	town				1	1	
Kingsburg									
Lenawee County:									
Britton	79	126.4	rural			1		1	
Britton Macon									
Livingston County:									
Brighton	45	72	rural						
Brighton, 6-8					1	1		2	770
Brighton, Int.						5		5	
Brighton, Mid.						4		4	
Hawkins, K-5						6		6	484
Miller, K-5						1		1	500
West, K-5						1		1	467
Fowlerville	29	46.4	rural						
Fowlerville, 9-12						1	1	2	637
Fowlerville, 6-8						1	2	3	522
Fowlerville, E.				4		1		5	
Fowlerville Comm.				3				3	
Hibbard St., E.						1	2	3	
H. T. Smith, K-5							1	1	637
Parkers Corners, 1-3						1		1	64
Hamburg	53	84.8							
Hamburg				2				2	
Howell	38	60.8	town						
Howell, 9-12				1				1	1,876
Northeast, E.						2	1	3	215
Northwest, E.						3	1	4	513
Southeast, E.						1		1	544
Southwest, E.						2	1	3	576
Pinckney	45	72	rural						
Pinckney, K-5							1	1	618
Macomb County:									
New Baltimore	86	137.6							
Anchor Bay, 9-12				1				1	1,125
St. Clair Shores	73	116.8							
Elmwood, K-7				1				1	
Maxine, K-7				1				1	
Muskegon County:									
Muskegon	104	166.4	metropolitan						
Campbell, K-5							3	3	456
Dutch Creek						1		1	
Laketon, Jr.						1		1	
Lincoln, K-6							1	1	378
Orchard View, 6-8						1		1	800
Muskegon Heights, 9-12					2			2	950
North Muskegon, Sr.						1		1	
Manistee County:									
Brethren	141	225.6							
Brethren, 7-12							1	1	390

Table 1--Continued

County: Town and Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
<u>Mason County:</u>									
Ludington	159	254.4	town	1				1	290
Lakeview School, K-6									
<u>Midland County:</u>									
Midland	86	137.6	city				1	1	385
Longview, K-6						1		1	205
Mapleton, K-6						1		1	465
Plymouth, K-6						1		1	610
Seibert, K-6						1		1	115
State School, K-3						1		1	
<u>Montcalm County:</u>									
Carson City	44	70.4	rural						
Carson City, K-6							1	1	457
Greenville	65	104.0	town						
Baldwin Hts., K-5				2				2	492
Cedar Crest, K-5				1				1	320
Walnut, 1-5				2		1		3	290
<u>Oakland County:</u>									
Berkley	84	134.4							
Berkley Public Sch.				1				1	
Birmingham	87	139.2	city						
Westchester, K-6					1			1	187
Farmington	66	105.6	urban fringe						
Kenbrook, K-6					1			1	410
Orchard Lake	63	100.8							
West Bloomfield, Sr.						1		1	
Pontiac	69	110.4	metropolitan						
Pontiac Northern, 9-12				1				1	2,185
<u>Oceana County:</u>									
Hart	141	225.6	rural						
Hart Public School				1				1	
<u>Oscoda County:</u>									
Fairview	182	291.2	rural						
Fairview, 7-12						1		1	183
<u>Ottawa County:</u>									
Holland	87	139.2	city						
Lakewood, K-3					1	1		2	293
Jenison	69	110.4	urban fringe						
Sandy Hill, K-6						1		1	519
Zeeland	87	139.2							
Vriesland, 3-5						1		1	65
<u>Saginaw County:</u>									
Birch Run	62	99.2	rural						
Birch Run					2			2	
Chesaning	46	73.6	town						
Chesaning, K-6				1				1	539
Chesaning, 7-8						2		2	566
Freeland	80	128.0	rural						
Mapleton							1	1	
Hemlock	80	128.0	rural						
Hemlock, K-4				1				1	746
Saginaw	70	112	metropolitan						
Arthur Hill, H.S.						1		1	
Douglas MacArthur, 9-12						1		1	
Shields, E.						1		1	
<u>Shiawassee County:</u>									
Corunna	39	62.4	urban fringe						
Corunna, 9-12				1	2			3	905
Corunna, 7-8					2			2	505
Elsa Meyer, K-6					1			1	475
Louise Peacock, K-6					3			3	390
Durand	31	49.6	town						
Durand North				1				1	
R. Kerr, K-4				2				2	300
B. Neal, K-4						1		1	300
Mihan				1				1	

Table 1--Continued

County: Town and Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
<u>Shiawassee--Cont.</u>									
Laingsburg	20	32							
Laingsburg, Sr.									
Morrice	20	32	rural	1	1		1	3	
Morrice, 7-8						1		1	150
Morrice, K-6				1		2	3	6	550
Owosso	30	48	city						
Owosso, 9-12					2			2	2,034
Owosso, E.				1				1	
Central, K-6						2		2	432
Emerson, K-6				6			1	7	742
Green Meadow, K-4,5						1		1	87
Washington							1	1	560
Perry	18	28.8	rural						
Perry, 9-12						1	1	2	635
Perry, 6-8					1	1		2	540
Perry, K-4				1	2			3	190
Vernon	28	44.8							
Vernon				1				1	
<u>St. Clair County:</u>									
Fair Haven	94	150.4							
Fair Haven				1				1	
Marine City	98	156.8							
Ward-Coltrell						1		1	
St. Clair	100	160.0							
St. Clair, 10-12				2				2	664
Eddy, K-6						1		1	653
<u>Wayne County:</u>									
Romulus	80	128.0	city						
East Taylor				1				1	
Wyandotte	95	152.0	city						
Labadle, K-6				1				1	
Madison				2				2	
W. Taft, K-6				2				2	
Woodruff, K-6				1				1	

Table 2. Geographical breakdown by counties, towns, and parochial schools for students referred to Michigan State University Reading Center

County: Town and Schools	Distance From Michigan State University		Community Classification	Students by Year Block				Total Students Served	Total Students in District
	Miles	Kilometers		I	II	III	IV		
<u>Calhoun County:</u>									
Battle Creek	47	75.2	metropolitan	1				1	
St. Philip									
<u>Clinton County:</u>									
Fowler	28	44.8	rural						
Most Holy Trin., 4-8									
St. Johns	18	28.8	town						
St. Joseph, 1-6					1	1	1	3	
Westphalia	32	51.2	rural				1	1	
St. Mary, 1-6									
<u>Eaton County:</u>									
Charlotte	22	35.2	town						
St. Mary, 1-5						3		3	
Diamondale	8	12.8	urban fringe			1		1	
St. Mary									
<u>Eaton, Clinton and Ionia Counties:</u>									
Grand Ledge	14	22.4	urban fringe						
7th Day Adventist							1	1	
St. Michael, 1-6						2	4	6	
<u>Ingham County:</u>									
East Lansing	1	1.6	urban fringe						
St. Thomas Acq., 1-8				2	4	8	3	17	
Lansing	2	3.2	metropolitan						
Catholic Central, 7-12							1	1	
Holy Cross, 1-6				2	11	2	2	17	
Gabriels H.S.						1		1	
Immaculate Heart					1	4	3	8	
Lansing Christian					1	3	2	6	
O'Rafferty H.S.						1		1	
Our Savior Lutheran						2	4	6	
Resurrection, 1-6				2	3	2		7	
7th Day Adventist				2				2	
St. Casimer				2	8	4		14	
St. Gerard, 1-8					10	4	7	21	
St. Mary					1			1	
St. Therese, 106				4		3		7	
Williamston	20	32.0							
7th Day Adventist						1	1	2	
St. Mary, 1-6					1	1		2	
Williamston Church School						1		1	
<u>Ionia County</u>									
Portland	25	40.0	rural						
St. Patrick				1		1	1	3	
Ionia	38	44.8			1	1		2	
St. Peter and Paul									
<u>Jackson County:</u>									
Jackson	38	60.8							
Catholic, Mid.									
Lumen Christi, 9-12									
Queens, 1-6				1				1	
St. John, 1-6									
St. Joseph, K-8									
St. Mary, 1-6									
St. Stanislaus, 1-8									
Parma	48	76.8							
St. John					1			1	
<u>Kalamazoo County:</u>									
Kalamazoo	71	113.6							
St. Augustine, 1-8						1		1	
<u>Kent County:</u>									
Grand Rapids	64	102.4	metropolitan						
Hope Protestant Reform						1		1	
Wyoming									
Holy Name					1			1	
<u>Muskegon County:</u>									
Muskegon	104	166.4	metropolitan						
Muskegon Christian						1		1	
<u>Oakland County:</u>									
Bloomfield Hills	75	120.0							
Convent-of-Sacred Heart						1		1	
<u>Shiawassee County:</u>									
Owasso	30	48.0	city						
Salem Lutheran					1			1	
<u>St. Clair County:</u>									
Algonac	120	192.0							
St. Catherine				1				1	
<u>Wayne County:</u>									
Detroit	85	136.0							
Mother of Our Savior						1		1	

<u>Metropolitan</u>		
<u>Core Cities</u>		
1. Battle Creek	19. Oxford	7. Brighton
2. Bay City	20. South Haven	8. Britton
3. Flint	21. Sparta	9. Carson City
4. Grand Rapids	22. St. Clair	10. Cedar Springs
5. Jackson	23. St. Johns	11. Dansville
6. Lansing	24. Williamston	12. Eagle
7. Muskegon	25. Zeeland	13. Elkton
8. Pontiac		14. Elsie
9. Saginaw		15. Fairview
	<u>Urban Fringe District</u>	16. Fowler
<u>City Districts</u>	1. Bath	17. Fowlerville
1. Albion	2. Berkley	18. Freeland
2. Benton Harbor	3. Comstock Park	19. Hamburg
3. Birmingham	4. Corunna	20. Hanover-Horton
4. Holland	5. DeWitt	21. Hart
5. Midland	6. Diamondale	22. Hemlock
6. Owosso	7. East Grand Rapids	23. Hickory Corners
7. Romulus	8. East Lansing	24. Homer
8. St. Joseph	9. Essexville	25. Hubbardston
9. Traverse City	10. Farmington	26. Jonesville
10. Wyandotte	11. Grand Blanc	27. Laingsburg
	12. Grand Ledge	28. Leslie
	13. Granville	29. Litchfield
	14. Grass Lake	30. Luther
	15. Haslett	31. Morrice
	16. Holt	32. Muir
<u>Town Districts</u>	17. Jenison	33. Nashville
1. Alma	18. Michigan Center	34. Olivet
2. Belding	19. Okemos	35. Onaway
3. Charlotte	20. Orchard Lake	36. Ovid
4. Chesaning	21. Parma	37. Perry
5. Clare	22. St. Clair Shores	38. Pewamo
6. Coldwater	23. Swartz Creek	39. Pinckney
7. Durand	24. Vernon	40. Portland
8. Eaton Rapids	25. Waverly	41. Potterville
9. Greenville	26. Mulliken	42. Quincy
10. Hastings		43. Reading
11. Howell	<u>Rural Districts</u>	44. Springport
12. Ionia	1. Ashley	45. Stockbridge
13. Lennon	2. Bellevue	46. Union
14. Lowell	3. Birch Run	47. Vermontville
15. Ludington	4. Brethren	48. Vicksburg
16. Mason	5. Brooklyn	49. Webberville
17. Marine City	6. Bridgman	50. Woodland
18. New Baltimore		

Figure 8. Public schools in Michigan school districts by major community classification.

<u>Metropolitan Core Cities</u>	<u>City District</u>	<u>Urban Fringe District</u>
1. Battle Creek	1. Owosso	1. Bloomfield Hills
2. Lansing		2. Davison
3. Jackson		3. Diamondale
4. Detroit		4. East Lansing
5. Grand Rapids		5. Grand Ledge
6. Kalamazoo		6. Parma
7. Muskegon		7. Wyoming
<u>Town District</u>		<u>Rural District</u>
1. Algonac		1. Fowler
2. Charlotte		2. Ionia
3. St. Johns		3. Luther
4. Williamston		4. Portland
		5. Westphalia

Figure 9. Parochial schools in Michigan school districts by major community classification.

the instruments would need to be adapted. Thus, the pilot study demonstrated the need for certain revisions to provide an appropriate format for categorizing and summarizing the data.

Sample and Procedure

To provide a broader base for generating hypotheses, four additional cases for each one-year period between 1957 and 1975 inclusive, were drawn, using a table of random numbers. Hence, including the sample for the pilot study, the new sample was 95 students. Using the revised instruments, data were collected on each of 166 variables.

The sample was composed of 75.8 percent males and 24.2 percent females whose ages ranged from 6 years of age to 19 years of age. In respect to school placement, 57 percent of these students were enrolled in the fifth grade or below. The distribution of scores on the Wechsler Intelligence Scale Profile showed that 25.3 percent fell below the normal range on the Verbal Scale, 10.5 percent fell below the normal range on the Performance Scale, and 19.0 percent fell below the normal range on the Full Scale.

Instruments

The data were selected from three major sources, the School Form, the Teacher Form, and the Parent Form. The Wechsler Intelligence Scale Profile was a secondary source. The three major sources of data in the form of questionnaires were constructed in 1957 as a means of acquiring information about each student prior to testing at the

Michigan State University Reading Center. The School Form sought four major categories of information and was so designed that the information would be given in list form. The four areas were (1) academic progress, (2) attendance record, (3) health, and (4) standardized tests (see Appendix A). In order to program these data for computer analysis, it was necessary to adapt the format of the questionnaires (see Appendix A--School Form Summary Sheet).

The Teacher Form questionnaire consists of seven open-ended items and a set of eight categorical response items (see Appendix A--Teacher Form). To accommodate computer programming, answers to the open-ended items were transformed into categorical responses (see Appendix A--Teacher Form Summary Sheet).

The Parent Form, during the span of 20 years, was altered three times (see Appendix A--Parent Form 1, Parent Form 2, and Parent Form 3). The response "not available" is inserted in the tables to indicate that the question was not on the parent form for that year block. Once again to accommodate computer programming, the answers to the open-ended items were transformed into categorical responses (see Appendix A--Parent Form Summary Sheet for all three parent forms were compressed into one Parent Form Summary Sheet).

Data Analysis

The data collected from the questionnaires: School Form Summary Sheet, Teacher Form Summary Sheet, Parent Form Summary Sheet, and the Wechsler Intelligence Scale Profile were transferred to optical

scanning sheets, from which data cards were produced for use at the computer facilities at Michigan State University.

The Statistical Package for the Social Sciences (SPSS) was used to compute the frequencies and percentages for each of the 166 variables. The absolute frequency, the relative frequency, the cumulative frequency, and the mean were obtained for each variable. In addition, regression analysis was conducted with 9 of the variables.

Summary

This portion of the study, which involved a sampling of 95 students, was designed to provide a frame of reference for a descriptive profile of a typical student referred to a Teacher Education Reading Center. The population, pilot study, sample, and instruments (School Form, Teacher Form, Parent Form, and Wechsler Intelligence Scale) as well as the data analysis used in the study were described in this chapter.

CHAPTER IV

ANALYSIS OF QUESTIONNAIRES: SCHOOL, TEACHER, PARENT

For editorial convenience the analysis of the data obtained from the three instruments (school form, teacher form, and parent form) is presented in two parts. In the first part, personal information, academic abilities, and classroom behavior are reported. In the second part, a description of the social, physical, and emotional characteristics of the student is presented under the following headings: (1) Family-Home Background; (2) Developmental History; (3) Student Behavior, Attitudes, and Interests; and (4) School History.

It has long since been recognized that children enter the school environment with a constellation of physical, mental, emotional, and social characteristics. Yet, the interrelationship of these characteristics within the school environment, resulting in wide variances among students in the acquisition of reading, is still a matter of conjecture.

Perhaps one of the reasons why it has been difficult to specify the interactions of the variables among the characteristics of students with reading disabilities may be the scarcity of integrated information available from teacher's observations of student behavior during the

daily course of events in the classroom and lack of uniformity and consistency in instruction and evaluation practices.

For instance, slightly over 12 percent of the schools reported no testing program at all. Approximately 83 percent of the schools were reported to have administered either an intelligence test, or an achievement test, or an achievement battery (Table B.1).¹ Yet 82 percent of the students referred to the Michigan State University Reading Center by these selfsame schools had not been administered any test prior to their appointment at the Reading Center. Among the students for whom testing was reported, 3.2 percent had been given a reading test, 6.3 percent a diagnostic battery, and 4.2 percent a general achievement battery (Table B.2).

Even a cursory examination of this data suggests that such information is far too scant to synthesize a descriptive profile of the student with a school history of low achievement in reading acquisition. As a consequence, periodic school reports inform parents of vaguely defined deficiencies in reading, which, in turn, reflect a heavy demand for diagnostic services at the Reading Center in October, February, April, and May (Tables B.3, B.4, B.5, B.6, and B.7).

That which follows then, is an analysis of teacher information and school information reported about students referred to the Michigan State University Reading Center from 1957 through 1975.

¹All categories for each question are not included in the text; therefore, the percentages will not necessarily total 100.

School and Teacher Information

Students ranged in age from 6 years to 19 years with nearly half of them (47.4 percent) falling in the 8-10 year old bracket (Table B.8). Nearly three-fourths of the students (71.6 percent) according to school reports, range in grade placement from grade 1 to grade 6 (Table B.9); on the other hand, 66.4 percent of these same students ranged in grade placement from grade 1 to grade 6 later at the time of testing (Table B.10). Approximately 27 percent ranged in weight from 50-100 pounds, 29 percent varied in height from 4 feet 0 inches to 5 feet 5 inches (Table B.11). Only 7.4 percent were reported to be left handed (Table B.12).

The children who came to the Reading Center included 78.2 percent males and 24.2 percent females (Table B.13). The fact that such a high percentage of referrals to the Reading Center were males is consistent with data from other sources which shows that boys much more frequently than girls experience difficulty in reading acquisition. Also it may be interesting to note that it has been suggested "that during the kindergarten and primary years boys tend to mature somewhat more slowly than girls and hence are often pushed into actual reading training before their readiness for it had been completely established."² Yet a study by Preston (1962) where he compared reading test scores of 1,034 fourth and sixth grade German students with scores

²John Hersey, "Teaching Reading: A Re-examination," in Teaching Reading: Selected Materials, ed. Walter B. Barbe (New York: Oxford University Press, 1965), p. 402.

of a corresponding group of 1,338 American students, suggests that difference in achievement performance of boys and girls may be culturally inspired. In the American sample the mean scores for girls were significantly higher than for boys, while in the German sample the reverse was true.³ This cultural difference once again calls attention to the need to examine what is the best learning environment both for girls and for boys.

Intelligence test scores play a prominent role in the literature dealing with the diagnosis and correction of deficits in reading. In this study the Wechsler Intelligence Scale Profile was used to appraise both verbal and performance abilities. The data revealed that among the 95 students in the sample, 61.1 percent attained a verbal I.Q. below 100 and 33.7 percent attained a verbal I.Q. of 100 or above; 48.4 percent attained a performance I.Q. score below 100 and 46.3 percent attained a performance I.Q. score of 100 or above; 52.7 percent attained a full scale I.Q. score below 100 and 42.1 percent attained a full scale I.Q. score of 100 or above. It should be noted that 24.2 percent of the students had a verbal I.Q. score which fell one standard deviation higher than his performance I.Q. score; that 37.9 percent of the students had a performance I.Q. score which fell one standard deviation higher than his verbal I.Q. score; and that 18.9 percent of the students had a performance I.Q. score which fell two standard deviations higher than his verbal I.Q. score (Table B.14).

³Ralph C. Preston, Reading Achievement of German and American Children," School and Society 90 (1962): 350-354.

The normal range of I.Q. is usually construed to include scores of 90 to 110. Accordingly, 54.7 percent of the students had a verbal I.Q. score which fell within the normal range; 60.0 percent of the students had a performance I.Q. score which fell within the normal range; and 64.2 percent of the students had a full scale I.Q. score which fell within the normal range of intelligence (Table B.14).

It has often been said that reading disabilities occur on all intellectual levels and this data substantiates this viewpoint.

Because the aim of diagnosis is to develop a profile of each student's strengths and weaknesses, the teacher form requested the classroom teacher to describe the individual as he relates and responds to influences in the school environment. The data reveals that:

- according to teacher judgment, 36.8 percent of the students in the sample had demonstrated more ability in mathematics than in any other academic subject. Another 12.6 percent of the students were deemed to have more ability in the language arts excluding reading than any other academic area of the curriculum. Teachers did not report an area of strength for 37.9 percent of the students in the sample (Table B.15).
- teachers judged 68.4 percent of the students to be least capable in learning tasks involving the reading act while 13.7 percent were thought to be weak in all aspects of the academic curriculum (Table B.16).
- in the non-academic school subjects, 21.1 percent of the students were thought to have the most ability in art and 10.5 percent the most ability in physical education. Teachers did not report an area of strength in the non-academic curriculum for 56.8 percent (Table B.17).
- teachers did not indicate for 88.4 percent of the students a non-academic area in which students had demonstrated the least ability. Less than 11 percent of the students were judged to have the least ability in activities which did not involve the reading act (Table B.18).

- teachers reported that 12.6 percent of the students demonstrated unusual interest in activities that involved the reading act, 37.9 percent demonstrated unusual interest in activities which did not involve the reading act, and 24.2 percent were judged not to have any unusual interests at all (Table B.19).

Teachers described for each student in the sample the academic problem which according to their observations appeared to be the primary handicapping condition in reading acquisition. To be consistent with the literature, these handicapping conditions have been categorized as follows:

1. deficiency in components of the reading act;
2. problem in intellectual functioning;
3. problem in social or emotional behavior;
4. deficiency in components of the reading act and problem with intellectual functioning;
5. deficiency in components of the reading act and problem with sensory or perception;
6. deficiency in components of the reading act and problem in emotional or social behavior;
7. problem with intellectual functioning and sensory or perception; and
8. problem with intellectual functioning and problem in emotional or social behavior.⁴

The data reveals that 48.4 percent of the students had a deficiency in one or more of the components of the reading act, and 12.6 percent of the students were reported to have a combination of deficiencies in the reading act and limitations in intellectual functioning. Handicapping conditions falling in categories 2, 3, 4, 5, 6,

⁴William K. Falkenburg and Bonnie W. Camp, eds., Pediatrics Screening Tests (Springfield, Ill.: Thomas, 1975), p. 389.

7, and 8 will not be discussed because the incidence of these handicapping conditions reported by the teachers was too minimal to warrant inclusion (Table B.20).

According to reports of the Michigan State University Reading Center diagnosticians, 24.2 percent of the students achieved in reading no higher than that usually found among average students in grade 2; 40 percent of the students achieved in reading no higher than that usually found among average students in grades 3 and 4; and 25.3 percent achieved in reading no higher than that usually found among students in grades 5-7 (Table B.21). On the other hand, the designated grade placement of the textbooks used for instructional purposes by these selfsame studies ranged as follows: 34.7 percent grade 1-2, and 28.4 percent grades 3-7 (Table B.22). Approximately 70 percent of the teachers chose to list the title of the textbook rather than the designated grade placement suggesting that teachers may not be aware of the difficulty level of the textbook (Table B.23).

In regard to social adjustment, 65.2 percent of the students were perceived by teachers to be well-adjusted and 28.4 percent were perceived to be not well-adjusted (Table B.24); 76.8 percent were perceived to be well-liked by peers and 20 percent to be not well-liked by peers (Table B.25); 78.8 percent were said to be well-liked by adults and 7.4 percent to be not well-liked by adults (Table B.26).

These data merit more than cursory attention if one recalls that the problem of adequate adjustment primarily involves intelligent

selection of means to satisfy needs.⁵ The rather significant proportion of students reported as not well-adjusted may indicate that these students seem unable to meet the demands of the school reading program without an intelligent and realistic means for coping with social demands of the environment. Hence one is reminded that "the becoming of a human being is not something that just happens but is the product of interaction and interrelationships. Thus there is a need to focus on this relationship climate because the child becomes in terms of the quality of those interactions."⁶

Accordingly, it becomes the responsibility of the school to help students discover the best ways for responding to the interactions and interrelationships operant in the classroom setting, i.e., to make intelligent and rational forms of adjustment. That there is a need for helping students discover effective ways of coping with the school environment is manifested by the following data which describes teachers' perceptions of the manner in which students who have been referred to the Michigan State University Reading Center, interact to meet the social demands of the school setting. Approximately 65 percent of the students were perceived by teachers to be responsive in their relationship with other children (Table B.27), 80.1 percent chose children their own age for playmates (Table B.28), 45.3 percent

⁵William Clark Trow, Educational Psychology (Boston: Houghton Mifflin Company, 1950), p. 219.

⁶H. Gerthron Morgan, "Today's Child Is Different," in What Is Reading Doing to the Child? ed. Nancy Larrick (Danville, Ill.: The Interstate Printers and Publishers, Inc., 1967), p. 19.

were quiet in their communication pattern (Table B.29), and 67.4 percent were accepting of authority (Table B.30). More than 70.0 percent of the students when faced with a difficult task either withdraw from the situation (34.7 percent) or face the task intelligently (28.4 percent) (Table B.31), while more than 89.0 percent when faced with a problem either were reasonably persistent (36.8 percent) or easily discouraged (53.7 percent) (Table B.32).

The percentage of students in the classroom whose behavior was perceived to be emotionally calm was 44.2 (Table B.33). The percentage of students generally avoiding leadership was 38.9, while 38.9 percent sometimes either lead or follow (Table B.34).

In addition to describing the interactions and interrelationships in the classroom setting, the schools provided the following: attendance records, health records, and evaluation procedures.

Attendance records by grades indicated that in kindergarten 49.5 percent of the students were absent 0-18 days, in the first grade 65.3 percent were absent 0-18 days, and in the second grade 63.2 percent were absent 0-18 days. Absenteeism steadily decreased from third grade through twelfth grade (Table B.35).

Health information was reported for 68.4 percent of the students, but was unavailable for 30.5 percent of the students (Table B.36).

The schools reported that the most prevalent means of evaluating student's academic progress was by letter grade (62.1 percent). School conferences (in 10.5 percent of the schools) and

written comments by teachers (6.3 percent of the schools) were the other means of evaluation reported (Table B.37).

Though the school climate plays a prominent role in the educational outcome of the child, it is the interplay between the school and the home that enables the child to be motivated to learn.

The research dealing with influences in the home environment shows that there is a correlation between certain home conditions and poor adjustment in school.⁷ If, as previously mentioned, there apparently is a relationship between achievement in reading and adjustment to the school setting, and if there is a correlation between school adjustment and home influences, then the question becomes: What are the factors in the home that are most often related to reading problems rooted in the environment?

The generalizations which follow were gleaned from studies designed to investigate conditions in the home environment which contribute to handicapping conditions in school.

A low socioeconomic level is one, although parental attitudes and behavior may be more significant than the parent's education, income, or race (Dave, 1963). The size of the family, the child's position in it, and the opportunity the home presents for learning experiences relevant to school are also important (Gordon, 1962). Other factors believed to contribute to the school adjustment problem are homes which have few books, few toys, and little self-instructional material: homes where children are rarely read to, and homes where there is little contact between parent and child; homes where reward and punishment (often physical) are

⁷Carl B. Smith, Barbara Carter, and Gloria Dapper, Reading Problems and the Environment: The Principal's Role (Newark, Del.: International Reading Association, 1969), p. 13.

immediate (Kohn, 1959; Leshan, 1952), and homes where learning to postpone gratification is as irrelevant to their way of thinking as learning for learning's sake (Gordon, 1964).⁸

Family-Home Background

The data in this section entitled Family-Home Background⁹ reveals that more than 79.0 percent of the students were members of families with four or less children in the family (Table B.38)--64.2 percent of the students had 1 or 2 brothers, 58.9 percent had 1 or 2 sisters (Table B.39), and 4.2 percent of the students had extended family members (Table B.40). A language other than English was spoken in 2.1 percent of the homes (Table B.41). Parents reported that 8.4 percent of the students had male siblings who had experienced learning difficulties in some academic subject, and 5.3 percent had female siblings who had experienced similar academic problems (Table B.42). In addition, 10.5 percent had brothers who had specifically experienced difficulty in the acquisition of reading, and 10.6 percent had sisters who had experienced similar difficulties in learning to read (Table B.43).

Parents, in retrospect, reported that 13.7 percent of the fathers and 11.6 percent of the mothers remembered themselves as poor readers (Table B.44), yet 78.9 percent of the fathers and 90.5 percent

⁸Ibid., p. 12. (This citation is an aggregation of citations from the above source.)

⁹The questionnaire was revised three times between 1956 and 1975; therefore, all questions do not appear on every form. Not available means that the question was not on the form.

of the mothers reported that they liked to read (Table B.45); more than 42 percent reported that they read magazines and/or newspapers (Table B.46). In reporting children's activities, 38.9 percent of the parents said their children watched television at least 2 hours daily, 14.7 percent watched television for 3-6 hours daily, and 1.1 percent watched television more than 6 hours daily (Table B.47). That they had difficulty controlling the viewing of television was reported by 24.2 percent of the parents (Table B.48).

In regard to the disciplining of children, 14.7 percent of the fathers and 16.8 percent of the mothers reported that the inadherence to parental rules was cause for punishment (Table B.49). The responsibility for punishment was shared by both parents in 14.7 percent of the instances reported, administered solely by the father in 2.1 percent of the instances and administered solely by the mother in 24.7 percent of the instances (Table B.50). Parents reported that the most effective punishment was confining the child to his room. The percentage of fathers using this approach was 15.8 and the percentage of mothers was 17.9. Physical punishment was used by 9.5 percent of the fathers and depriving the child of privileges was used by 10.5 percent of the mothers (Table B.51).

The fathers ranged in age from 26-60 years of age--86.3 percent being in the 31-50 year age bracket. The age range of the mothers was 26-55 years of age--87.4 percent being in the age range 26-45 years (Table B.52).

More than 66.0 percent of the parents reported good personal health (Table B.53), and more than 46.0 percent reported no personal disabilities (Table B.54).

In respect to education, more than 42.0 percent of the fathers and more than 33.0 percent of the mothers had schooling beyond 12th grade. On the other hand, 25.3 percent of the fathers and 19.0 percent of the mothers reported formal education of less than 12th grade (Table B.55). The reports showed that 6.3 percent of the fathers and 10.3 percent of the mothers had received school honors (Table B.56), and that school failure was experienced by 7.4 percent of the fathers and 3.2 percent of the mothers (Table B.57).

A report on the marital status of the parents revealed that 5.3 percent of the fathers and 10.5 percent of the mothers had experienced divorce (Table B.58).

The description of occupation of the parents showed that 27.4 percent of the fathers and 9.5 percent of the mothers held professional or managerial positions; 21.1 percent of the fathers were laborers/farmers, 20.0 percent were craftsmen/mechanics/construction workers, and 61.1 percent of the mothers were homemakers (Table B.59).

More than 63.0 percent of the students in the sample had parents who regarded an occupational choice as the student's decision, while 12.6 percent of the students were specifically expected to choose a profession (Table B.60).

Because the acquisition of reading is influenced by the physiological status of the individual as well as intellectual ability, educational background, and home environment, the child's developmental history is reported.

Developmental History

The data for this section¹⁰ of the study reveals that 41.1 percent of the mothers reported a full-term pregnancy (Table B.61) and that the birth weight for 37.9 percent of the children ranged from 5-8 pounds (Table B.62). The percentage of parents who indicated unusual conditions associated with their pregnancy was 6.3 (Table B.63).

Normal conditions at birth were reported by 65.3 percent of the parents, while 16.8 percent reported non-normal circumstances in the birth of their child (Table B.64). In 4.2 percent of the instances children were reported adopted (Table B.65).

The percentage of children who were reported to have had difficulty in infancy was 22.1 (Tables B.66), and the percentage of children who were reported to have had a period of unusual growth was 3.3 (Table B.67). The general development of the children was reported to be below average for 12.6 percent of the students, average for 28.4 percent of the students, and above average for 8.4 percent of the students (Table B.68).

¹⁰ The questionnaire was revised three times between 1956 and 1975; therefore, all questions do not appear on every form. Not available means that the question was not on the form.

During their childhood years, many of the children were reported to have the usual childhood diseases (measles, mumps, chickenpox) and in some instances tonsilectomies. Only 9.5 percent of the children were reported to have escaped any of the previously mentioned diseases or illnesses (Table B.69).

Health problems were reported for 4.2 percent of the students (Table B.70), unusual spells were reported for 27.4 percent of the students (Table B.71), allergies were reported for 10.5 percent of the students (Table B.72), and handicaps were reported for 1.1 percent of the students (Table B.73).

Speech, vision, and hearing problems among the students in the sample were reported as follows: Speech--4.2 percent were currently perceived as having a speech problem, 12.6 percent in the past had been judged to have had a speech problem (Table B.74), and 7.4 percent have had speech therapy (Table B.75); Vision--12.6 percent were reported to have vision difficulty (Table B.76), 3.2 percent were reported to be near sighted (Table B.76); and 10.5 percent wore glasses (Table B.77); and Hearing--6.3 percent were reported to have hearing defects (Table B.78).

Behaviors relating to the emotional make-up and emotional maturity of the individual were reported by the parents as follows: 12.6 percent of the students were bed-wetters (Table B.79), 11.6 percent were thumb suckers (Table B.79), 10.5 percent had nightmares (Table B.80), 10.5 percent had temper tantrums (Table B.81), and

41.1 percent were day dreamers (Table B.82). Less than 6.0 percent of the students were receiving medication (Table B.83).

In addition, it was reported that 24.2 percent of the students had manifestations of fears, 33.7 percent gave up easily, 21.1 percent were dependent upon others, and 36.8 percent were self-reliant (Table B.84).

The percentage of students who reportedly hung up their clothes or stored their toys on their own initiative was 10.5, the percentage who had to be told to hang up their clothes or store their toys was 13.7, the percentage who hung up their clothes or stored their toys only under parental pressure was 5.3, the percentage who sometimes but not always hung up their clothes or stored their toys on their own initiative was 7.4, and the percentage who never hung up their clothes or stored their toys on their own initiative was 4.2 (Table B.85).

Student Behavior, Attitude, and Interest

In responding to questions¹¹ designed to elicit parents' perception of the student's attitude toward learning to read, 38.9 percent reported their child had a good attitude towards school (Table B.86), 11.6 percent reported their child did not like to read, 14.7 percent reported that their child lacked motivation to read, and 15.8 percent thought their child did not want to learn to read. In reporting possible causes for a child's difficulty in reading

¹¹ The questionnaire was revised three times between 1956 and 1975; therefore, all questions do not appear on every form. Not available means that the question was not on the form.

acquisition, 7.4 percent of the parents stated the difficulty stemmed from poor instruction, 10.5 percent stated their child did not receive instruction in the use of word attack skills, and 11.6 percent stated their child must assume the blame for not learning to read (Table B.87).

In responding to questions designed to elicit parents' perception of the disposition and behavior of their child, 40.0 percent reported that the usual temperament was cheerful/happy/pleasant, 28.4 percent reported the usual temperament was cooperative/good, and 3.2 percent reported the usual temperament was unhappy (Table B.88). However, when students were thwarted, 9.5 percent of the parents stated that their child became angry and resentful, 14.7 percent stated their child would pout or be cross for a short time, 13.7 percent stated their child would be accepting and good natured (Table B.89). Only 5.3 percent of the parents reported that their child was difficult to control at home (Table B.90). That the parent and child did not get along together was reported by 2.1 percent of the parents, and that the child did not get along with other members of the family was reported by 9.5 percent of the parents (Table B.91). In the opinion of 77.9 percent of the parents their child's relationship with neighborhood children was good (Table B.91), and 46.9 percent of the parents stated their child had many friends (Table B.92). Parents in 12.6 percent of the instances perceived their child as not having many friends (Table B.92).

When queried about their child's involvement with hobbies, participation in major hobbies, and pursuit of special interests, 61.1 percent of the students had hobbies, 63.2 percent participated

in major activities, and 25.3 percent had special interests (Table B.93).

School History Data¹²

Because family mobility is thought to influence achievement in school, parents were asked to report the number of times the family moved. The data reveals that 3.2 percent of the parents reported their child had never moved, 4.2 percent of the parents reported their child had moved once, 3.2 percent of the parents reported their child had moved three times, 2.1 percent of the parents had reported their child had moved four times, and 1.1 percent of the parents reported their child had moved five times (Table B.94). More than 14.0 percent of the parents reported that their child had moved at least once before the age of 16 years (Table B.95). Approximately 6 percent of the parents reported that their child had changed schools frequently, and 5.3 percent of those children had changed schools during the first three years of their schooling (Table B.96).

In regard to school progress, more than 29.0 percent of the students were reported to have repeated one grade, and 1.1 percent were reported to have repeated a grade three times (Table B.97). Of the students who were reported to have repeated one grade, 24.2 percent did so between first and third grades (Table B.98).

¹²The questionnaire was revised three times between 1956 and 1975; therefore, all questions do not appear on every form. Not available means that the question was not on the form.

The subjects in which parents reported that their child showed the least achievement were as follows: 40.0 percent of the parents reported reading, 5.3 percent reported mathematics, and 4.2 percent reported English (Table B.99). On the other hand, the subject in which 28.4 percent of the parents reported their child showed the most achievement was in mathematics (Table B.100).

Approximately 30 percent of the parents reported that their child's reading difficulty was discovered when he was in first grade, and 11.6 percent of the parents reported their child was in second grade when the reading difficulty was discovered (Table B.101).

More than 26.0 percent of the parents reported that their child had been tutored in reading (Table B.102)--6.4 percent of the students were in grades 1-3 when tutored (Table B.103), 10.5 percent of the students were tutored for a long term, and 11.6 percent of the students were tutored during the summer (Table B.104). Twenty percent of the parents reported that their child was given reading assistance prior to the appointment at the Michigan State University Reading Center (Table B.105).

Approximately 16 percent of the parents reported their child read voluntarily, 28.4 percent reported their child read very little, and 53.7 percent reported their child did not read voluntarily (Table B.106).

The data presented in the Tables B.1-B.106 were the source for generating 100 hypotheses to test the relationship among 21

variables. The design for testing the relationship between the 21 variables is presented in Chapter VI. The analysis of the data is reported in Chapter VII.

CHAPTER V

REGRESSION ANALYSIS

As previously stated, the purpose in Chapter III was to design a study which would generate hypotheses that would provide a frame of reference for a descriptive profile of a typical student referred to a Teacher Education Reading Center. A description of the analysis of the data from which the hypotheses were to be generated is presented in Chapter IV.¹ From the analysis of this data were derived nine quantitative variables which appeared feasible as predictors of levels of reading acquisition. The feasibility of these predictors is based on information about 75 individuals for whom complete data were available. That which follows presents the results of the application of a regression equation to determine the validity of these quantitative variables as predictors of an individual's level of reading acquisition.

The nine predictor variables and one criterion variable selected for statistical analysis are as follows.

Criterion Variable:

- X₁ The criterion variable was the student's level of reading acquisition as given in the diagnostic report. The categories were the following: pre-primer, primer, first, second, third, fourth, fifth, sixth, seventh, eighth, and nine through twelve.

¹The data in reference were obtained from the three questionnaires: School Form, Teacher Form, and Parent Form.

Predictor Variables:

- X₂ Classroom behavior
- X₃ Performance I.Q.
- X₄ Communication pattern
- X₅ Child's position in the family
- X₆ Grade when tested
- X₇ Verbal score higher than performance
- X₈ Age of father
- X₉ Total number of children in the family
- X₁₀ Age of mother

Through the use of the Statistical Program for the Social Sciences, mean values and standard deviations for all of the variables were derived, along with the correlation coefficients, multiple R, standard error estimates, regression weights, and statistical F test to determine the incremental significance of each term in the complete regression equation. The correlation matrix showing the relationship among the nine variables and between each of the nine variables, and the criterion variable is given in Table 3.

Table 4 shows the mean and standard deviation of each of the nine variables including the criterion variable.

Table 5 presents the raw regression weights, standard errors, and the 95 percent confidence intervals.

Table 3. Coefficients of correlation between nine variables

Variable	Variable 1	Variable 2	Variable 3	Variable 4	Variable 5	Variable 6	Variable 7	Variable 8	Variable 9
2	.36350								
3	.26938	-.06421							
4	-.36038	-.28454	-.02410						
5	-.02882	.12449	.35727	-.09121					
6	.21439	.46764	.07606	-.24072	.14716				
7	-.06233	.07234	-.07004	-.10940	.10189	.51753			
8	.10377	.07776	-.02493	.06675	.15687	.01410	-.12216		
9	-.05378	.12320	-.14811	-.00562	.10879	.16657	.69481	-.02297	
10	.17097	.49446	.00858	-.27081	.15189	.90932	.45928	.02157	.16428

Table 4. Means and standard deviations of nine variables

Variable	Mean	Standard Deviation	Cases
2	5.8267	2.0689	75
3	5.4267	2.5794	75
4	102.9067	11.3425	75
5	3.2400	1.3934	75
6	42.5333	19.7343	75
7	37.8267	6.4815	75
8	2.4933	1.3190	75
9	3.7200	1.6568	75
10	40.2000	6.8616	75

Because of the significance of the F values, Variable 4 (communication pattern), Variable 8 (age of father), and Variable 9 (total number of children in the family) were deleted in the second application of the regression equation. Accordingly the correlation matrix in Table 6 shows the relationship among the remaining six variables, and between the remaining six variables and the criterion variable.

Table 5. Results of regression equation using nine variables

Variable	Regression Weight	Standard Errors	95 Percent Confidence Intervals
X ₂	-.457	.157	-0.771 to -0.143
X ₉	.104	.194	-0.284 to 0.492
X ₄	.178	.139	-0.100 to 0.456
X ₃	.065	.020	0.025 to 0.105
X ₁₀	.087	.084	-0.081 to 0.255
X ₇	-.025	.012	-0.049 to -0.001
X ₆	.243	.101	0.041 to 0.445
X ₅	-.233	.290	-0.813 to 0.347
X ₈	-.068	.074	-0.216 to 0.080

Multiple R = .60146; R Square = .36176; N = 75.

Table 6. Coefficients of correlation between six variables

Variable	Variable 1	Variable 6	Variable 3	Variable 4	Variable 7	Variable 5
6	.37725					
3	.32099	-.01936				
5	-.37054	-.28326	-.02644			
2	.03293	.15111	.42476	-.07732		
7	.18874	.44141	.00540	-.26378	.08017	
10	-.07065	.07247	-.07035	-.09018	.09740	.49306

Table 7 shows the mean and standard deviation of each of the six variables including the criterion variable.

Table 7. Means and standard deviations of six variables

Variable	Mean	Standard Deviation	Cases
6	5.3544	2.5421	79
3	102.3418	11.8688	79
5	3.2278	1.3955	79
2	41.6456	20.1552	79
7	37.9747	6.5319	79
10	2.4810	1.2896	79

Table 8 presents the raw regression weights, standard errors, and the 95 percent confidence intervals.

Table 8. Results of regression equation using six variables

Variable	Regression Weight	Standard Errors	95 Percent Confidence Intervals
X ₆	.272	.091	+0.090 to 0.363
X ₃	.070	.019	+0.032 to 0.108
X ₅	-.135	.181	-0.497 to 0.227
X ₂	-.423	.149	-0.721 to -0.125
X ₇	-.021	.011	-0.043 to +0.001
X ₁₀	.007	.040	-0.073 to 0.087

Multiple R = .60159; R Square = .36191.

Although each of the six variables in the regression equation contribute to the variance of the predicted scores, it was deemed advisable because of the 95 percent confidence intervals, to delete Variable 5 (child's position in the family); Variable 7 (verbal score higher than performance); and Variable 10 (age of mother) in the third equation.

Thus three criteria for selecting the best predictors were used: (1) those variables showing the highest significant F values in the multiple regression equation, (2) those variables that accounted for the largest proportion of variance in the dependent variable, and (3) those variables that fall within the 95 percent confidence intervals.

Accordingly, a third equation was used with the following three variables: (1) X_6 , grade when tested; (2) X_3 , performance I.Q.; (3) X_2 , classroom behavior.

The correlation matrix showing the relationship among the three variables and between each of the three variables, and the criterion variable is given in Table 9.

Table 9. Coefficients of correlation between three variables

Variable	Variable 1	Variable X_6	Variable X_3
X_6	.37725		
X_3	.32099	-.01936	
X_2	-.37054	-.28326	-.02644

Table 10 gives the mean and standard deviation of each of the three variables and the criterion variable.

Table 10. Means and standard deviations of three variables

Variables	Mean	Standard Deviation	Cases
X ₁	5.7848	2.0858	79
X ₆	5.3544	2.5421	79
X ₃	102.3418	11.8688	79
X ₂	3.2278	1.3955	79

Table 11 gives the regression weights, standard error, the 95 percent confidence intervals, and the standard regression weights.

Table 11. Results of regression equation using three variables

Variable	Raw Regression Weight	Standard Error	95 Percent Confidence Intervals	Standard Regression Weights
2	-.411	.148	-0.900 to -0.100	-.275
3	.056	.016	0.010 to 0.088	.319
4	.250	.081	0.088 to 0.400	.305

Multiple R = .56561; R Square = .31991; N = 79 cases.

Conclusions

Although these predictors fall within a reasonably acceptable level, one can readily see the need for seeking other predictors. Hence it may be efficacious to conduct additional research to uncover other variables which will significantly increase the accuracy of predicting an individual's level of reading acquisition, and that the testing of these predictors with a much larger sample will be desirable.

CHAPTER VI

DESIGN FOR THE TESTING OF HYPOTHESES

This portion of the study was designed to examine specific relationships between the following 21 variables: (1) sex of student, (2) I.Q. Wechsler verbal, (3) I.Q. Wechsler performance, (4) I.Q. Wechsler full scale, (5) nature of the academic problem, (6) adjustment in school environment, (7) school failure, (8) peer acceptance, (9) acceptance by adults, (10) behavior when faced with a difficult task, (11) behavior when faced with a problem, (12) behavior with reference to authority, (13) behavior with reference to leadership, (14) behavior in the classroom, (15) relationship with other students, (16) classroom communication pattern, (17) choice of playmates, (18) grade level, (19) absenteeism in each of grades 1 to 6, (20) females in the family having a reading problem, (21) males in the family having a reading problem. The data were obtained over an 18-year period for students diagnosed at the Michigan University Center within grade blocks 1-3, 4-6, 7-8, and 9-12, and time intervals 1957-1960, 1961-1965, 1966-1970, and 1971-1975. A description of the sampling, hypotheses, instrumentation, and the statistical treatment of the data used in this part of the study follows.

Sample and Procedure

The population for this study was previously described in Chapter III. The individuals in the population were grouped according to their grade placement and the chronology of their appointment for diagnostic services. Intervals for grade placement were chosen to be 1-3, 4-6, 7-8, and 9-12. Chronological intervals were determined to be 1957-1960, 1961-1965, 1966-1970, and 1971-1975. Using a table of random numbers, a sample of 40 individuals was drawn for each of the grade interval across time intervals for a total of 640 students (see Table 12 for the distribution).

Table 12. Initial distribution of students by grade blocks and year blocks at time tested (N = 640)

Year Block	Grade Block				
	1-3	4-6	7-8	9-12	Total
1957-1960	40	40	40	40	160
1961-1965	40	40	40	40	160
1966-1970	40	40	40	40	160
1971-1975	40	40	40	40	160
Total	160	160	160	160	640

Because, in the process of recording data, it was discovered that significant time lapsed between date of application and the date of appointment for diagnostic services, it was deemed advantageous to reassign individuals in the sample according to the date of application.

The reallocation of individuals by grade placement across time intervals is shown in Table 13.

Table 13. Final distribution of students by grade blocks and year blocks at time forms were completed (N = 640)

Year Block	Grade Block				
	1-3	4-6	7-8	9-12	Total
1957-1960	42	41	39	41	163
1961-1965	58	37	39	44	178
1966-1970	56	35	32	27	150
1971-1975	43	45	30	31	149
Total	199	158	140	143	640

The sample consisting of 640 students was composed of 80.8 percent males and 19.2 percent females whose ages ranged from 6 years to 19 years. According to the distribution of scores on the Wechsler Intelligence Scale Profile, 29.7 percent fell below the normal range on the Verbal Scale, 15.0 percent fell below the normal range on the Performance Scale, and 21.6 percent fell below the normal range on the Full Scale.

Hypotheses

To examine the relationship between 21 specific variables, 100 hypotheses were formulated. All of the hypotheses were stated as null hypotheses. These hypotheses were generated from information extracted from three instruments (School Form, Teacher Form, and Parent Form) in questionnaire form which were submitted prior to an appointment for diagnostic services.

The hypotheses were organized according to the following sets of variables.

Sex of Student

Nine null hypotheses were formulated to test whether significant relationships exist between the sex of the student and each of the following:

1. Adjustment in school environment;
2. Grade when tested;
3. Absenteeism in each of the grades, 1-6;
4. School failure;
5. Behavior when faced with a difficult task;
6. Behavior when faced with a problem;
7. Behavior with reference to leadership;
8. Relationship with other students; and
9. Choice of playmates.

The nine null hypotheses are stated below:

1. There is no relationship between the sex of the student and student adjustment in school environment.
2. There is no relationship between the sex of the student and grade placement when tested.
3. There is no relationship between the sex of the student and the number of days absent in each of the grades, 1-6.
4. There is no relationship between the sex of the student and incidence of school failure.
5. There is no relationship between the sex of the student and student behavior when faced with a difficult task.
6. There is no relationship between the sex of the student and student behavior when faced with a problem.
7. There is no relationship between the sex of the student and student behavior with reference to leadership.
8. There is no relationship between the sex of the student and student relationship with other students.
9. There is no relationship between the sex of the student and choice of playmates.

Intelligence Quotient

The Wechsler Intelligence Scale yielded three measures for each student: (1) Verbal I.Q., (2) Performance I.Q., and (3) Full Scale I.Q. The following comparisons were made: those students earning a score below 100 on the verbal I.Q. were compared with those students earning a score of 100 or above on the Verbal I.Q.; those students earning a score below 100 on the Performance I.Q. were compared with those students earning a score of 100 or above on the Performance I.Q.; and those students earning a score below 100 on the Full Scale I.Q. were compared with those students earning a score of 100 or above on the Full Scale I.Q.

Twelve null hypotheses were formulated to test the significance of relationship between each of the measures yielded by the Wechsler Intelligence Scale and each of the following variables:

1. Adjustment in school environment;
2. School failure;
3. Male siblings having a reading problem;
4. Female siblings having a reading problem;
5. Behavior when faced with a difficult task;
6. Behavior when faced with a problem;
7. Behavior with reference to authority;
8. Behavior with reference to leadership;
9. Behavior in the classroom;
10. Relationship with other students;
11. Classroom communication pattern; and
12. Choice of playmates.

The twelve null hypotheses are stated below.

1. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and student adjustment in school environment.
2. There is no relationship between student Verbal I.Q., Performance I.Q., Full Scale I.Q., and incidence of school failure.
3. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and male siblings having a reading problem.
4. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and female siblings having a reading problem.

5. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and student behavior when faced with a difficult task.
6. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and student behavior when faced with a problem.
7. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and student behavior with reference to authority.
8. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and student behavior with reference to leadership.
9. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and student behavior in the classroom.
10. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and student relationship with other students.
11. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and classroom communication pattern.
12. There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and choice of playmates.

Student Academic Problem

Classroom teachers described the academic problem for each student in the sample, which according to their observations appeared to be the primary handicapping condition in reading acquisition. These handicapping conditions have been categorized as follows:

1. Deficiency in components of the reading act;
2. Problem with intellectual functioning;
3. Problem in social or emotional behavior;
4. Deficiency in components of the reading act and problem with intellectual functioning;

5. Deficiency in components of the reading act and problem with sensory or perception;
6. Deficiency in components of the reading act and problem in emotional or social behavior;
7. Problem with intellectual functioning and sensory and perception; and
8. Problem with intellectual functioning and problem in emotional or social behavior.

Fifteen null hypotheses were formulated to test whether significant relationships exist between the academic problems as categorized and each of the following fifteen variables:

1. Verbal I.Q.;
2. Performance I.Q.;
3. Full Scale I.Q.;
4. Adjustment in school environment;
5. School failure;
6. Acceptance by peers;
7. Acceptance by adults;
8. Behavior when faced with a difficult task;
9. Behavior when faced with a problem;
10. Behavior with reference to authority;
11. Behavior with reference to leadership;
12. Behavior in the classroom;
13. Relationship with other students;
14. Classroom communication pattern; and
15. Choice of playmates.

The fifteen null hypotheses are stated below:

1. There is no relationship between academic problem as categorized and student Verbal I.Q.
2. There is no relationship between academic problem as categorized and student Performance I.Q.
3. There is no relationship between academic problem as categorized and student Full Scale I.Q.
4. There is no relationship between academic problem as categorized and student adjustment in school environment.
5. There is no relationship between academic problem as categorized and incidence of school failure.
6. There is no relationship between academic problem as categorized and acceptance by peers.
7. There is no relationship between academic problem as categorized and acceptance by adults.
8. There is no relationship between academic problem as categorized and behavior when faced with a difficult task.
9. There is no relationship between academic problem as categorized and behavior when faced with a problem.
10. There is no relationship between academic problem as categorized and behavior with reference to authority.
11. There is no relationship between academic problem as categorized and behavior with reference to leadership.
12. There is no relationship between academic problem as categorized and behavior in the classroom.
13. There is no relationship between academic problem as categorized and student relationship with other children.
14. There is no relationship between academic problem as categorized and classroom communication pattern.
15. There is no relationship between academic problem as categorized and choice of playmates.

Adjustment of Student

Each student was identified by the classroom teacher as being either well adjusted or not well adjusted. Nine null hypotheses were formulated to test whether significant relationships exist between student adjustment and each of the following nine variables:

1. School failure;
2. Behavior when faced with a difficult task;
3. Behavior when faced with a problem;
4. Behavior with reference to authority;
5. Behavior with reference to leadership;
6. Behavior in the classroom;
7. Relationship with other students;
8. Classroom communication pattern; and
9. Choice of playmates.

The null hypotheses are stated below.

1. There is no relationship between student adjustment in school environment and school failure.
2. There is no relationship between student adjustment in school environment and student behavior when faced with a difficult task.
3. There is no relationship between student adjustment in school environment and student behavior when faced with a problem.
4. There is no relationship between student adjustment in school environment and student behavior with reference to authority.
5. There is no relationship between student adjustment in school environment and student behavior with reference to leadership.

6. There is no relationship between student adjustment in school environment and student behavior in the classroom.
7. There is no relationship between student adjustment in school environment and student relationship with other students.
8. There is no relationship between student adjustment in school environment and classroom communication pattern.
9. There is no relationship between student adjustment in school environment and choice of playmates.

Student Acceptance by Peers

Each student was identified by the classroom teacher as being well liked by other students or not well liked by other students. Eight null hypotheses were formulated to test whether significant relationships exist between student acceptance by peers and each of the following eight variables.

1. Behavior when faced with a difficult task;
2. Behavior when faced with a problem;
3. Behavior with reference to authority;
4. Behavior with reference to leadership;
5. Behavior in the classroom;
6. Relationship with other students;
7. Classroom communication pattern; and
8. Choice of playmates.

The eight null hypotheses are stated below.

1. There is no relationship between student acceptance by peers and student behavior when faced with a difficult task.

2. There is no relationship between student acceptance by peers and student behavior when faced with a problem.
3. There is no relationship between student acceptance by peers and student behavior with reference to authority.
4. There is no relationship between student acceptance by peers and student behavior with reference to leadership.
5. There is no relationship between student acceptance by peers and student behavior in the classroom.
6. There is no relationship between student acceptance by peers and student relationship with other students.
7. There is no relationship between student acceptance by peers and classroom communication pattern.
8. There is no relationship between student acceptance by peers and choice of playmates.

Student Acceptance by Adults

Each student was identified by the classroom teacher as being well liked by adults or not being well liked by adults. Eleven null hypotheses were formulated to test whether significant relationships exist between student acceptance by adults and each of the following eleven variables:

1. Verbal I.Q.:
2. Performance I.Q.;
3. Full Scale I.Q.;
4. Behavior when faced with a difficult task;
5. Behavior when faced with a problem;
6. Behavior with reference to authority;
7. Behavior with reference to leadership;
8. Behavior in the classroom;

9. Relationship with other students;
10. Classroom communication pattern; and
11. Choice of playmates.

The eleven null hypotheses are stated below:

1. There is no relationship between student acceptance by adults and Verbal I.Q.
2. There is no relationship between student acceptance by adults and Performance I.Q.
3. There is no relationship between student acceptance by adults and Full Scale I.Q.
4. There is no relationship between student acceptance by adults and behavior when faced with a difficult task.
5. There is no relationship between student acceptance by adults and behavior when faced with a problem.
6. There is no relationship between student acceptance by adults and behavior with reference to authority.
7. There is no relationship between student acceptance by adults and behavior with reference to leadership.
8. There is no relationship between student acceptance by adults and behavior in the classroom.
9. There is no relationship between student acceptance by adults and student relationship with other students.
10. There is no relationship between student acceptance by adults and classroom communication pattern.
11. There is no relationship between student acceptance by adults and choice of playmates.

Behavior When Faced With a Difficult Task

Each student was identified by the classroom teacher as responding to a difficult task in one of the following three ways:

- (1) withdrawing from the situation, (2) facing the problem

intelligently, or (3) acting impulsively. Eight null hypotheses were formulated to test whether significant relationships exist between student behavior when faced with a difficult task and each of the following eight variables:

1. School failure;
2. Behavior when faced with a problem;
3. Behavior with reference to authority;
4. Behavior with reference to leadership;
5. Behavior in the classroom;
6. Relationship with other students;
7. Classroom communication pattern; and
8. Choice of playmates.

The eight null hypotheses are stated below.

1. There is no relationship between student behavior when faced with a difficult task and incidence of school failure.
2. There is no relationship between student behavior when faced with a difficult task and student behavior when faced with a problem.
3. There is no relationship between student behavior when faced with a difficult task and student behavior with reference to authority.
4. There is no relationship between student behavior when faced with a difficult task and student behavior with reference to leadership.
5. There is no relationship between student behavior when faced with a difficult task and student behavior in the classroom.
6. There is no relationship between student behavior when faced with a difficult task and student relationship with other students.

7. There is no relationship between student behavior when faced with a difficult task and classroom communication pattern.
8. There is no relationship between student behavior when faced with a difficult task and choice of playmates.

Behavior When Faced With a Problem

Each student was identified by the classroom teacher as responding to a problem in one of the following three ways: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive. Three null hypotheses were formulated to test whether significant relationships exist between student behavior when faced with a problem and each of the following three variables:

1. School failure;
2. Relationship with other students; and
3. Choice of playmates.

The three null hypotheses are listed below.

1. There is no relationship between student behavior when faced with a problem and incidence of school failure.
2. There is no relationship between student behavior when faced with a problem and student relationship with other students.
3. There is no relationship between student behavior when faced with a problem and choice of playmates.

Behavior With Reference to Authority

Each student was identified by the classroom teacher in one of the following three ways: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority. Five null hypotheses

were formulated to test whether significant relationships exist between student behavior with reference to authority and each of the following five variables:

1. School failure;
2. Behavior when faced with a problem;
3. Relationship with other students;
4. Classroom communication pattern; and
5. Choice of playmates.

The five null hypotheses are listed below.

1. There is no relationship between student behavior with reference to authority and school failure.
2. There is no relationship between student behavior with reference to authority and student behavior when faced with a problem.
3. There is no relationship between student behavior with reference to authority and student relationship with other students.
4. There is no relationship between student behavior with reference to authority and classroom communication pattern.
5. There is no relationship between student behavior with reference to authority and choice of playmates.

Behavior With Reference to Leadership

Each student was identified by the classroom teacher as:

(1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead, in his relationship with other students. Seven null hypotheses were formulated in order to test whether significant relationships exist between student behavior with reference to leadership and each of the following seven variables:

1. School failure;
2. Behavior when faced with a problem;
3. Behavior with reference to authority;
4. Behavior in the classroom;
5. Relationship with other students;
6. Classroom communication pattern; and
7. Choice of playmates.

The seven null hypotheses are listed below.

1. There is no relationship between student behavior with reference to leadership and incidence of school failure.
2. There is no relationship between student behavior with reference to leadership and student behavior when faced with a problem.
3. There is no relationship between student behavior with reference to leadership and student behavior with reference to authority.
4. There is no relationship between student behavior with reference to leadership and student behavior in the classroom.
5. There is no relationship between student behavior with reference to leadership and student relationship with other students.
6. There is no relationship between student behavior with reference to leadership and classroom communication pattern.
7. There is no relationship between student behavior with reference to leadership and choice of playmates.

Behavior in the Classroom

Each student was identified by the classroom teacher as:

(1) being apathetic, (2) being emotionally calm, or (3) being excitable. Six null hypotheses were formulated to test whether

significant relationships exist between student behavior in the classroom and each of the following six variables:

1. School failure;
2. Behavior when faced with a problem;
3. Behavior with reference to authority;
4. Relationship with other students;
5. Classroom communication pattern; and
6. Choice of playmates.

The six null hypotheses are listed below.

1. There is no relationship between student behavior in the classroom and incidence of school failure.
2. There is no relationship between student behavior in the classroom and student behavior when faced with a problem.
3. There is no relationship between student behavior in the classroom and student behavior with reference to authority.
4. There is no relationship between student behavior in the classroom and student relationship with other students.
5. There is no relationship between student behavior in the classroom and classroom communication pattern.
6. There is no relationship between student behavior in the classroom and choice of playmates.

Relationship With Other Children

Each student was identified by the classroom teacher as:

- (1) being shy and bashful in his relationship with other students,
- (2) being responsive in his relationships with other students, or
- (3) being bold and aggressive in his relationship with other students.

One null hypothesis was formulated to test whether significant relationships exist between student relationship with other students and the following variable:

1. School failure.

The null hypothesis is stated below.

1. There is no relationship between student relationship with other students and incidence of school failure.

Classroom Communication Pattern

Each student was identified by the classroom teacher as:

(1) being quiet, (2) being normally communicative, or (3) being very talkative in the classroom. Four null hypotheses were formulated to test whether significant relationships exist between student classroom communication pattern and the following four variables:

1. School failure;
2. Behavior when faced with a problem;
3. Relationship with other children; and
4. Choice of playmates.

The four null hypotheses are listed below.

1. There is no relationship between classroom communication pattern and incidence of school failure.
2. There is no relationship between classroom communication pattern and student behavior when faced with a problem.
3. There is no relationship between classroom communication pattern and student relationship with other students.
4. There is no relationship between classroom communication pattern and choice of playmates.

Choice of Playmates

Each student was identified by the classroom teacher as generally associating with (1) younger children, (2) children of his own age, or (3) older children. Two null hypotheses were formulated to test whether significant relationships exist between choice of playmates and the following two variables:

1. School failure; and
2. Relationship with other children.

The two null hypotheses are listed below.

1. There is no relationship between choice of playmates and incidence of school failure.
2. There is no relationship between choice of playmates and student relationship with other students.

Instruments

Data were selected from portions of three major sources, the School Form, the Teacher Form, and the Parent Form. The Wechsler Intelligence Scale Profile was a secondary source. The three questionnaires constructed in 1957 were used as a means of acquiring information about each student prior to testing at Michigan State University Reading Center. The School Form requested information pertaining to the four major areas: (1) academic progress, (2) attendance record, (3) health, (4) standardized tests (see Appendix A). The area of interest for this sample was the attendance record. In order to program the information for computer analysis the format of the questionnaire was revised (see Appendix A, School Form Summary Sheet).

The Teacher Form consisted of seven open-ended items and a set of eight categorical response items (see Appendix A, Teacher Form). From the Teacher Form, four open-ended items were selected: (1) academic problem, (2) adjustment in school environment, (3) peer acceptance, and (4) acceptance by adults, as well as the complete set of eight categorical response items. The responses to the open-ended items were transformed into categorical responses (see Appendix A, Teacher Form Summary Sheet 1).

The Parent Form, during the span of 18 years, was altered three times (see Appendix A, Parent Form 1, Parent Form 2, and Parent Form 3). To facilitate computer analysis, the responses to the open-ended items were transformed into categorical responses (see Appendix A, Parent Form Summary Sheet). All three Parent Forms were compressed into one Parent Form Summary Sheet. The open-ended items chosen were (1) Has the student failed a grade? (2) Are there females in the family having a reading problem? (3) Are there males in the family having a reading problem?

Data Analysis

One hundred null hypotheses were formulated and organized into sets of variables. The rationale supporting the research design for this study emerged from the speculation that perhaps a set of multiple variables may best describe the low achiever in reading. Thus, one to one association was used to discern and decipher each possible relationship between the 21 variables previously mentioned.

Data for each individual in the sample were keypunched to facilitate computer processing. The facilities of the Research Computer Center at Michigan State University, and the computer program, "Statistical Package for the Social Sciences (SPSS)" were used for processing the data.

The mean and standard deviation as well as cross-tabulation tables for various combinations of each of the 21 variables were used to describe the data. Hypotheses were tested using the chi-square test for independence. Because of the extensive number of hypotheses, a conservative alpha level of .01 was set for rejecting the null hypotheses.

Summary

This portion of the study, which involved the data collected on a sample of 640 students, was designed to examine specific relationships between the following 21 variables: (1) sex of student, (2) I.Q. Wechsler Verbal, (3) I.Q. Wechsler Performance, (4) I.Q. Wechsler Full Scale, (5) nature of the academic problem, (6) adjustment in school environment, (7) school failure, (8) peer acceptance, (9) acceptance by adults, (10) behavior when faced with a difficult task, (11) behavior when faced with a problem, (12) behavior with reference to authority, (13) behavior with reference to leadership, (14) behavior in the classroom, (15) relationship with other children, (16) classroom communication pattern, (17) choice of playmates, (18) grade level, (19) absenteeism in each of grades 1 to 6, (20) females in the family having

a reading problem, and (21) males in the family having a reading problem. A description of the sampling, hypotheses, instrumentation, and the statistical treatment of the data used in this part of the study were described in this chapter.

CHAPTER VII

DATA ANALYSIS AND RESULTS

In accordance with the research design described in Chapter I, the second aspect of the research was to examine the relationship between 21 specific variables¹ concerning social, intellectual, academic, and personal characteristics of students who were referred to the Michigan State University Reading Center because of a school history of low achievement in reading.

Presentation of the Data by Hypotheses

The null hypotheses and the testing of the hypotheses are presented below. The 100 hypotheses were tested for the entire sample Grades 1-12, as well as for grade blocks 1-3, 4-6, 7-8, and 9-12 (see Table 14).

¹As previously mentioned in Chapter VI, the study was designed to examine specific relationships between the following 21 variables: (1) sex of student, (2) I.Q. Wechsler Verbal, (3) I.Q. Wechsler Performance, (4) I.Q. Wechsler Full Scale, (5) nature of the academic problem, (6) adjustment in school environment, (7) school failure, (8) peer acceptance, (9) acceptance by adults, (10) behavior when faced with a difficult task, (11) behavior when faced with a problem, (12) behavior with reference to authority, (13) behavior with reference to leadership, (14) behavior in the classroom, (15) relationship with other students, (16) classroom communication pattern, (17) choice of playmates, (18) grade level, (19) absenteeism in each of grades 1-6, (20) females in the family having a reading problem, and (21) males in the family having a reading problem.

Table 14. Chi squares for the 100 hypotheses tested for each of the grade blocks

Hypothesis	Variables Compared for Each Hypothesis	Total	Grade Block				
		Grades 1-12	Grades 1-3	Grades 4-6	Grades 7-8	Grades 9-12	
1	<u>Sex of student by:</u>						
1.1	Adjustment	12.45***	3.20	4.24*	1.36	1.57	
1.2	Grade when tested	14.86	2.39	1.85	7.97	3.79	
1.3	First grade absences	8.43	1.61	2.78	0.48	4.57	
1.3	Second grade absences	5.17	0.48	0.31	1.35	9.64*	
1.3	Third grade absences	1.49	1.69	3.01	2.23	1.86	
1.3	Fourth grade absences	2.44	--	0.71	3.46	0.84	
1.3	Fifth grade absences	0.91	--	1.31	1.71	1.67	
1.3	Sixth grade absences	4.79	--	4.61	0.84	6.61*	
1.4	Failure in school	18.52**	2.11	1.37	8.47*	10.27*	
1.5	Behavior when faced with a difficult task	10.83**	2.37	5.93*	8.12*	1.10	
1.6	Behavior when faced with a problem	14.38***	3.29	7.06*	0.14	7.73*	
1.7	Behavior with reference to leadership	3.53	11.78**	1.23	1.61	2.18	
1.8	Relationship with other children	4.84	5.11	3.53	0.33	0.18	
1.9	Choice of playmates	7.20*	1.48	3.61	3.65	2.45	
2	<u>Student's I.Q. by:</u>						
2.1	Adjustment						
	Verbal I.Q.	8.62**	0.45	0.00	3.87*	7.04**	
	Performance I.Q.	2.12	0.02	0.93	5.18*	1.71	
	Full Scale I.Q.	4.64*	0.09	0.00	3.09	2.67	
2.2	Failure in school						
	Verbal I.Q.	33.69***	9.35**	12.47***	6.44	7.35	
	Performance I.Q.	20.20***	7.68*	10.64***	9.18*	2.03	
	Full Scale I.Q.	39.24***	9.46**	16.26***	9.81*	10.75**	
2.3	Family--Males with academic problem						
	Verbal I.Q.	4.50	1.17	0.91	2.01	2.61	
	Performance I.Q.	1.07	0.40	0.11	1.99	1.18	
	Full Scale I.Q.	7.14	3.54	0.25	5.00	1.23	
2.4	Family--Females with academic problem						
	Verbal I.Q.	6.29*	5.62	0.41	4.59	0.16	
	Performance I.Q.	3.33	6.13*	2.16	3.25	0.10	
	Full Scale I.Q.	2.77	7.14*	2.33	1.95	0.16	
2.5	Behavior when faced with a difficult task						
	Verbal I.Q.	12.79**	7.18*	4.66	2.24	5.23	
	Performance I.Q.	9.33**	0.21	1.89	5.81	6.13*	
	Full Scale I.Q.	9.23**	9.96	4.25	0.28	5.41	
2.6	Behavior when faced with a problem						
	Verbal I.Q.	13.00**	0.78	2.26	1.05	15.08***	
	Performance I.Q.	5.71	3.40	1.38	1.29	6.01*	
	Full Scale I.Q.	5.43	0.91	3.17	0.81	7.27*	
2.7	Behavior with reference to authority						
	Verbal I.Q.	0.81	4.92	2.68	0.88	4.28	
	Performance I.Q.	5.04	3.96	0.24	1.03	8.85*	
	Full Scale I.Q.	5.96*	6.59*	4.07	2.19	8.39*	
2.8	Behavior with reference to leadership						
	Verbal I.Q.	13.11**	2.21	4.65	6.75*	2.38	
	Performance I.Q.	4.01	0.84	2.70	1.28	9.94**	
	Full Scale I.Q.	10.51**	2.80	2.48	3.36	6.35*	
2.9	Behavior in the classroom						
	Verbal I.Q.	18.57*	2.30	0.30	4.58	9.24**	
	Performance I.Q.	0.49	1.70	1.55	3.76	4.13	
	Full Scale I.Q.	5.27	0.17	0.55	5.72	4.95	
2.10	Relationship with other children						
	Verbal I.Q.	2.90	0.59	4.21	1.32	0.39	
	Performance I.Q.	0.85	0.60	0.93	0.31	2.69	
	Full Scale I.Q.	1.68	1.35	0.62	0.68	1.51	
2.11	Classroom communication pattern						
	Verbal I.Q.	11.16**	1.57	7.47*	7.14*	3.41	
	Performance I.Q.	2.84	3.64	0.11	0.49	3.04	
	Full Scale I.Q.	2.25	0.03	1.66	3.97	4.24	
2.12	Choice of playmates						
	Verbal I.Q.	2.05	6.72*	0.07	1.11	1.21	
	Performance I.Q.	0.07	0.29	1.52	0.32	3.11	
	Full Scale I.Q.	0.12	2.39	0.26	3.11	2.59	

Table 14--Continued

Hypothesis	Variables Compared for Each Hypothesis	Total	Grade Block				
		Grades 1-12	Grades 1-3	Grades 4-6	Grades 7-8	Grades 9-12	
3	<u>Student's academic problem by:</u>						
3.1	Verbal I.Q.	9.03	15.16*	11.47	9.95	2.67	
3.2	Performance I.Q.	11.56	14.43*	9.67	4.24	2.93	
3.3	Full Scale I.Q.	14.27	12.49	9.20	7.41	1.75	
3.4	Adjustment	30.99***	20.74**	6.08	16.28*	6.62	
3.5	Failure in school	32.67	12.51	7.79	6.85	9.73	
3.6	Acceptance by peers	20.04**	6.58	6.28	15.55*	9.69	
3.7	Acceptance by adults	19.70**	3.12	4.38	28.47***	11.67	
3.8	Behavior when faced with a difficult task	28.19*	19.72	17.17	16.31	9.32	
3.9	Behavior when faced with a problem	31.68**	16.71	27.34*	17.08	13.80	
3.10	Behavior with reference to authority	31.35**	13.58	17.67	9.64	11.10	
3.11	Behavior with reference to leadership	27.73*	30.22**	21.36	10.38	5.24	
3.12	Behavior in the classroom	29.09*	21.25	19.99	24.30*	9.78	
3.13	Relationship with other children	10.23	9.26	7.61	15.69	7.57	
3.14	Classroom communication pattern	31.00**	10.06	19.32	21.17	15.11	
3.15	Choice of playmates	12.42	9.83	12.17	8.50	11.99	
4	<u>Student's adjustment by:</u>						
4.1	Failure in school	9.56*	3.17	3.38	2.03	6.89	
4.2	Behavior when faced with a difficult task	90.60***	16.77***	21.06***	24.05***	40.20***	
4.3	Behavior when faced with a problem	85.09***	15.22***	16.77***	22.65***	38.36***	
4.4	Behavior with reference to authority	54.85***	12.50***	16.39***	12.00**	16.27***	
4.5	Behavior with reference to leadership	38.01***	18.13***	5.42	3.99	19.95***	
4.6	Behavior in the classroom	115.56***	21.87***	30.99***	37.92***	30.45***	
4.7	Relationship with other children	92.26***	31.05***	21.37***	20.17***	21.71***	
4.8	Classroom communication pattern	26.36***	8.86**	7.11*	1.58	13.20***	
4.9	Choice of playmates	22.95***	7.80*	12.03**	4.33	0.39	
5	<u>Student's acceptance by peers by:</u>						
5.1	Behavior when faced with a difficult task	21.02***	4.82	9.81*	1.35	12.67***	
5.2	Behavior when faced with a problem	27.39***	5.43	12.34**	6.45	10.77**	
5.3	Behavior with reference to authority	34.12***	13.92***	14.13**	4.15	11.31**	
5.4	Behavior with reference to leadership	33.37***	25.59***	3.04	6.02*	10.01**	
5.5	Behavior in the classroom	45.61***	8.53**	18.76***	11.06**	15.34***	
5.6	Relationship with other children	62.73***	25.84***	18.81***	14.91***	14.21***	
5.7	Classroom communication pattern	21.79***	0.61	7.37*	9.97**	11.04**	
5.8	Choice of playmates	21.88***	12.87***	11.51**	4.80	1.07	
6	<u>Student's acceptance by adults by:</u>						
6.1	Verbal I.Q.	2.23	2.33	0.00	0.21	0.00	
6.2	Performance I.Q.	2.82	0.00	0.36	1.55	0.86	
6.3	Full Scale I.Q.	5.32	0.15	0.68	2.68	1.23	
6.4	Behavior when faced with a difficult task	16.04***	2.87	6.94*	3.14	6.32	
6.5	Behavior when faced with a problem	28.74***	5.22	12.10**	6.17*	10.77**	
6.6	Behavior with reference to authority	58.64***	27.28***	7.89*	15.23***	18.82***	
6.7	Behavior with reference to leadership	7.39*	8.55*	0.72	1.32	3.96	
6.8	Behavior in the classroom	42.81***	3.68	14.42***	19.95***	19.70***	
6.9	Relationship with other children	38.45***	20.43***	9.44**	7.86*	7.87*	
6.10	Classroom communication pattern	16.15***	8.36*	1.48	5.78	11.17**	
6.11	Choice of playmates	5.56	6.94	6.01*	3.23	0.92	
7	<u>Student's behavior when faced with a difficult task by:</u>						
7.1	Failure in school	12.12	2.18	5.18	3.93	11.89	
7.2	Behavior when faced with a problem	225.80***	65.80***	56.29***	34.87***	65.92***	
7.3	Behavior with reference to authority	38.94***	18.47***	6.65	4.66	22.32***	
7.4	Behavior with reference to leadership	54.07***	26.75***	9.42	14.38**	18.23**	
7.5	Behavior in the classroom	136.55***	25.28***	30.86***	32.37***	55.28***	
7.6	Relationship with other children	53.94***	14.59**	8.21	12.63*	31.44***	
7.7	Classroom communication pattern	90.75***	37.66***	23.43***	13.02*	24.04***	
7.8	Choice of playmates	10.78*	9.17	1.38	3.30	3.41	

Table 14--Continued

Hypothesis	Variables Compared for Each Hypothesis	Total	Grade Block				
		Grades 1-12	Grades 1-3	Grades 4-6	Grades 7-8	Grades 9-12	
8	<u>Student's behavior when faced with a problem by:</u>						
8.1	Failure in school	15.27*	4.25	1.72	1.75	17.18**	
8.2	Relationship with other children	44.05***	15.10**	13.00*	9.40	10.34*	
8.3	Choice of playmates	13.41**	6.41	8.00	4.63	1.75	
9	<u>Student's behavior with reference to authority by:</u>						
9.1	Failure in school	9.05	2.26	6.57	4.27	9.78	
9.2	Behavior when faced with a problem	57.71***	10.87*	17.82**	27.00***	15.00**	
9.3	Relationship with other children	97.15***	24.12***	29.43***	28.84***	31.07***	
9.4	Classroom communication pattern	63.50***	13.69**	22.95***	9.81*	30.21***	
9.5	Choice of playmates	13.49**	3.33	5.80	16.36**	2.04	
10	<u>Student's behavior with reference to leadership by:</u>						
10.1	Failure in school	7.99	11.36*	5.27	8.48	3.23	
10.2	Behavior when faced with a problem	49.02***	12.66**	13.20**	13.74**	15.03**	
10.3	Behavior with reference to authority	49.70***	25.11***	20.82***	9.18	8.02	
10.4	Behavior in the classroom	55.57***	24.17***	7.35	11.16	18.68***	
10.5	Relationship with other children	184.54***	67.34***	37.13***	43.44***	23.99***	
10.6	Classroom communication pattern	93.62***	20.02***	34.02***	18.48**	27.56***	
10.7	Choice of playmates	21.95***	9.00	7.84	12.83**	4.25	
11	<u>Student's behavior in the classroom by:</u>						
11.1	Failure in school	6.93	3.45	4.79	8.16	11.65	
11.2	Behavior when faced with a problem	73.44***	18.09***	11.79*	18.57***	28.81***	
11.3	Behavior with reference to authority	63.97***	12.79**	15.44**	10.11*	43.54***	
11.4	Relationship with other children	76.80***	18.33***	20.27***	19.35	21.26***	
10.5	Classroom communication pattern	147.10***	47.80***	16.74**	30.16***	56.13***	
10.6	Choice of playmates	8.72	5.73	0.35	8.44	4.62	
12	<u>Relationship with other children by:</u>						
12.1	Failure in school	3.89	6.27	0.77	4.95	2.35	
13	<u>Classroom communication pattern by:</u>						
13.1	Failure in school	5.53	1.13	1.10	2.25	9.42	
13.2	Behavior when faced with a problem	39.35***	19.09***	8.28	6.20	13.81**	
13.3	Relationship with other children	199.34***	39.99***	55.56***	51.84***	46.29***	
13.4	Choice of playmates	8.65	7.04	6.67	3.91	1.97	
14	<u>Choice of playmates by:</u>						
14.1	Failure in school	22.84***	14.31**	13.43**	3.05	0.89	
14.2	Relationship with other children	32.42***	8.92	8.90	19.78***	4.62	

*Significance < .05.

**Significance < .01.

***Significance < .001.

Sex of Student

Nine null hypotheses were formulated to test whether significant relationships exist between the sex of the student and each of the following nine variables:

1. Adjustment in school environment;
2. Grade when tested;
3. Absenteeism in each of the grades, 1-6;
4. School failure;
5. Behavior when faced with a difficult task;
6. Behavior when faced with a problem;
7. Behavior with reference to leadership;
8. Relationship with other students; and
9. Choice of playmates.

Hypothesis 1.1

Null Hypothesis:

There is no relationship between the sex of the student and student adjustment in school environment.

Hypothesis 1.1 was tested by comparing the number of males and females who were perceived by their teachers as being either well adjusted or not well adjusted.

The statistical results are presented in Table C.1 and show that among students ranging in grade placement from 1-12 (hereafter designated as grade block 1-12), the variables (sex and student adjustment) correlate at the .001 level.

The data for the grade block 1-12 reveal that according to the perceptions of their teachers, 51.0 percent of 455 males were

well adjusted while 49.0 percent were not well adjusted. Perhaps one may then generalize that this ratio suggests that teachers are more likely to classify female students as well adjusted than to classify male students as well adjusted.

The null hypothesis was rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 1.2

Null Hypothesis:

There is no relationship between the sex of the student and his/her grade placement when tested.

Hypothesis 1.2 was tested by comparing the number of males and females with their grade placements (1-12) at the time of testing.

None of the relationships were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 1.3

Null Hypothesis:

There is no relationship between the sex of the student and the number of days absent for each year of attendance in grades 1-6.

Hypothesis 1.3 was tested by comparing absenteeism (days absent per year) of male students with absenteeism of female students for each year of attendance in grades 1-6 (testing this hypothesis for grades 7-12 was not feasible because records of grade attendance were so infrequently reported for students in junior and senior high school).

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 1.4

Null Hypothesis:

There is no relationship between the sex of the student and incidence of school failure.

Hypothesis 1.4 was tested by comparing the incidence of school failure among males and females.

The statistical results are presented in Table C.2 and show that the variables (sex and school failure) for the grade block 1-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 515 males, 64.1 percent were not reported to have repeated a grade, 33.2 percent were reported to have repeated one grade, and 2.3 percent were reported to have repeated three grades. Among 123 females, 88.7 percent were not reported to have repeated a grade while 16.3 percent were reported to have repeated one grade. Hence in the grade block 1-12 the data reveal that more males than females were reported to have repeated one grade by a margin of approximately 2:1.

The null hypothesis was rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 1.5

Null Hypothesis:

There is no relationship between the sex of the student and student behavior when faced with a difficult task.

Hypothesis 1.5 was tested by comparing the number of males who when faced with a difficult task were perceived by teachers as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively with the number of females whose behavior was perceived by teachers in the same manner.

The statistical results are presented in Table C.3 and show that the variables (sex and student behavior when faced with a difficult task) for the grade block 1-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 426 males when faced with a difficult task, 58.9 percent were perceived as withdrawing from a situation, 20.4 percent as facing the task intelligently, and 20.7 percent as acting impulsively. Among 101 females when faced with a difficult task, 45.5 percent were perceived as withdrawing from a situation, 35.6 percent as facing the task intelligently, and 18.8 percent as acting impulsively. Accordingly, for grade block 1-12, males by a margin of 15 percent withdraw from the situation when faced with a difficult task, while females by a margin of 15 percent faced the task intelligently. Males and females, in about the same proportions, act impulsively when faced with a difficult task.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 1.6

Null Hypothesis:

There is no relationship between the sex of the student and student behavior when faced with a problem.

Hypothesis 1.6 was tested by comparing the number of males who when faced with a problem were perceived by their teachers as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive with the number of females whose behavior was perceived by teachers in the same manner.

The statistical results are presented in Table C.4 and show that for the grade block 1-12 the variables (sex and student behavior when faced with a problem) correlate at the .001 level.

The data for grade block 1-12 reveal that of 469 males when faced with a problem, 64.4 percent were perceived by their teachers as being easily discouraged, 30.3 percent as being reasonably persistent, and 5.3 percent as being blindly aggressive. Among 110 females when faced with a problem, 48.2 percent were perceived as being easily discouraged, 49.1 percent as being reasonably persistent, and 2.7 percent as being blindly aggressive. Accordingly, for grade block 1-12, males by a margin of 16 percent were easily discouraged when faced with a problem, while females by a margin of 19 percent were reasonably persistent when faced with a problem. Male students, compared with female students by a margin of slightly less than 3 percent, were blindly aggressive when faced with a problem.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 1.7

Null Hypothesis:

There is no relationship between the sex of the student and student behavior with reference to leadership.

Hypothesis 1.7 was tested by comparing the number of males who in their association with other students were judged by teachers as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead with the number of females whose behavior was judged in the same manner.

The statistical results are presented in Table D.1 and show that for grade block 1-3 the variables (sex and student behavior with reference to leadership) correlate at the .01 level.

The data for grade block 1-3 reveal that of 162 males in their association with other students, 38.9 percent were generally avoiding leadership, 42.0 percent were at times either leading or following, and 19.1 percent were usually seeking to lead. Of 31 females in their association with other students, 71.0 percent were generally avoiding leadership, 25.8 percent were at times either leading or following, and 3.2 percent were usually seeking to lead. Hence in the grade block 1-3, the data reveal that females by a margin of almost two to one compared with males generally avoid leadership, while males by a margin of three to two compared with females were at times leading or following, and six times as many males as females were usually seeking to lead.

The null hypothesis was, therefore, rejected for grade block 1-3. Comparisons involving grade blocks 1-12, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 1.8

Null Hypothesis:

There is no relationship between the sex of the student and student relationship with other students.

Hypothesis 1.8 was tested by comparing the number of males who in their relationships with other students were reported by their teachers as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive with the number of females whose behavior in peer relationships was identified in the same manner.

None of the relationships among any of the grade blocks were significant at the .01 level.

Hypothesis 1.9

Null Hypothesis:

There is no relationship between the sex of the student and choice of playmates.

Hypothesis 1.9 was tested by comparing the number of males who were reported to associate with (1) younger children, (2) children their own age, or (3) older children with the number of females whose choice of playmates was reported in the same manner.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Summary

A summarization of the relationship between the data provided by the variable sex and student conduct reveals that:

- substantially more females than males were perceived by teachers to be well adjusted.
- when faced with a difficult task, females by a very large margin compared with males were perceived as facing the task intelligently.
- when faced with a problem, females were more reasonably persistent and much less easily discouraged than males.
- in grades 1-3, almost twice as many females as males generally avoided leadership; considerably more males than females were at times either leading or following; and males by a margin of six to one compared with females were usually seeking to lead.
- many more males than females were perceived by teachers to be not well adjusted.
- males by a margin of two to one compared with females were reported to have repeated a grade.
- many more males than females withdrew from the situation when faced with a difficult task.
- more males than females were less persistent and more easily discouraged when faced with a problem.

Intelligence Quotient

The Wechsler Intelligence Scale yielded three measures for each student: (1) Verbal I.Q., (2) Performance I.Q., and (3) Full Scale I.Q. The following comparisons were made: those students earning a score below 100 on the Verbal I.Q. were compared with those students earning a score of 100 or above on the Verbal I.Q.; those students earning a score below 100 on the Performance I.Q. were compared with those students earning a score of 100 or above on the Performance I.Q.; and

those students earning a score below 100 on the Full Scale I.Q. were compared with those students earning a score of 100 or above on the Full Scale I.Q. Twelve null hypotheses were formulated to test the significance of relationship between each of the measures yielded by the Wechsler Intelligence Scale and each of the following variables:

1. Adjustment in school environment;
2. School failure;
3. Male siblings having a reading problem;
4. Female siblings having a reading problem;
5. Behavior when faced with a difficult task;
6. Behavior when faced with a problem;
7. Behavior with reference to authority;
8. Behavior with reference to leadership;
9. Behavior in the classroom;
10. Relationship with other students;
11. Classroom communication pattern; and
12. Choice of playmates.

Hypothesis 2.1

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and student adjustment in school environment.

Hypothesis 2.1 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who were described by their teachers as being well adjusted, and comparing them with the number of students

who earned a score below 100 on each of the three measures, respectively, but who were described by their teachers as being not well adjusted. Similarly, the number of students who earned a score of 100 or above on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who were described by their teachers as being well adjusted were compared with the number of students who earned a score of 100 or above on each of the three measures, respectively, but who were described by their teachers as being not well adjusted.

The statistical results are presented in Table C.5 and Table G.1 and show that the variables (Verbal I.Q. and student adjustment in school environment) for the grade block 1-12 and the grade block 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 319 students whose Verbal I.Q. fell below 100, teachers perceived 49.5 percent to be well adjusted and 50.5 percent not well adjusted, while among 186 students whose Verbal I.Q. was 100 or above, 63.4 percent were well adjusted, and 36.6 percent were not well adjusted.

The data for the grade block 9-12 reveal that 45.9 percent of 61 students whose Verbal I.Q. fell below 100 were well adjusted, while 54.1 percent were not well adjusted as perceived by the classroom teacher. Among 51 students whose Verbal I.Q. was 100 or above, 72.5 percent were well adjusted, while 27.5 percent were not well adjusted as perceived by the classroom teacher.

In summary, in the grade block 1-12, the number of students with a Verbal I.Q. of 100 or above and perceived by their teachers as

well adjusted exceeds by 14 percent the number of students with a Verbal I.Q. of less than 100 and perceived by their teachers as well adjusted. In the grade block 9-12 the number of students with a Verbal I.Q. of 100 or above and perceived to be well adjusted exceeded by 27 percent those perceived by their teachers as being well adjusted and whose Verbal I.Q. was below 100. Thus it appears that teachers are more likely to perceive students with a Verbal I.Q. of 100 or above as well adjusted than not well adjusted.

The null hypothesis was rejected for the grade blocks 1-12 and 9-12. Comparisons involving grade blocks 1-3, 4-6, and 7-8 were not significant.

Hypothesis 2.2

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and incidence of school failure.

Hypothesis 2.2 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who were not reported to have repeated a grade, and comparing them with the number of students who earned a score below 100 on each of the three measures, respectively, but who were reported to have repeated a grade. Similarly, the number of students who earned a score of 100 or above on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who were not reported to have repeated a grade were compared with the number of

students who earned a score of 100 or above on each of the three measures, respectively, but who were reported to have repeated a grade.

The statistical results are presented in Tables C.6, D.2, and E.1 and show that the variables (Verbal I.Q. and school failure) for the grade block 1-12 and grade block 4-6 correlate at the .001 level and for the grade block 1-3 at the .01 level.

The data for the grade block 1-12 reveal that of 373 students whose Verbal I.Q. fell below 100, 60.1 percent were not reported to have repeated a grade, 37.0 percent were reported to have repeated one grade, and 2.4 percent were reported to have repeated two grades, while among 208 students whose Verbal I.Q. was 100 or above, 83.2 percent were not reported to have repeated a grade, 16.3 percent were reported to have repeated one grade, and 0.5 percent were reported to have repeated two grades.

The data for the grade block 4-6 reveal that 59.1 percent of 88 students whose Verbal I.Q. fell below 100 were not reported to have repeated a grade and 40.9 percent were reported to have repeated one grade, while among 53 students whose Verbal I.Q. was 100 or above, 88.7 percent were not reported to have repeated a grade and 11.3 percent were reported to have repeated one grade.

The data for the grade block 1-3 reveal that 57.7 percent of 111 students whose Verbal I.Q. fell below 100 were not reported to have repeated a grade, 37.8 percent were reported to have repeated one grade and 4.5 percent were reported to have repeated two grades. Among 69 students whose Verbal I.Q. was 100 or above, 78.3 percent were not

reported to have repeated a grade, and 21.7 percent were reported to have repeated one grade.

In summary, in the grade block 1-12 the data reveal that among the students whose Verbal I.Q. was below 100, more than twice as many students repeated a grade as those students whose Verbal I.Q. was 100 or above. In the grade block 1-3 the data reveal that among the students whose Verbal I.Q. was below 100, nearly twice as many students repeated a grade as those students whose Verbal I.Q. was 100 or above, whereas in grade block 4-6 those students whose Verbal I.Q. was below 100, nearly four times as many students repeated a grade as those students whose Verbal I.Q. was 100 or above. Thus it appears that of those students whose Verbal I.Q. was below 100, more repeated a grade than did those students whose Verbal I.Q. was 100 or above. Students in grade block 4-6 whose Verbal I.Q. was below 100 were four times more likely to have repeated a grade.

The null hypothesis was rejected for the grade blocks 1-12, 1-3, and 4-6. Comparisons involving grade blocks 7-8 and 9-12 were not significant.

Table C.7 and Table E.2 show that the variables (Performance I.Q. and school failure) for the grade block 1-12 and the grade block 4-6 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 269 students whose Performance I.Q. fell below 100, 59.1 percent were not reported to have repeated a grade, 37.9 percent were reported to have repeated one grade, 2.6 percent were reported to have repeated three grades.

Among 312 students whose Performance I.Q. was 100 or above, 76.3 percent were not reported to have repeated a grade, 22.4 percent were reported to have repeated one grade, 1.0 percent were reported to have repeated two grades, and 0.3 percent were reported to have repeated three grades.

The data for the grade block 4-6 reveal that 56.1 percent of 66 students whose Performance I.Q. fell below 100 were not reported to have repeated a grade, while 43.9 percent were reported to have repeated one grade. Among 75 students whose Performance I.Q. was 100 or above, 82.7 percent were not reported to have repeated a grade and 17.3 percent were reported to have repeated one grade.

In summary, in the grade block 1-12, among students whose Performance I.Q. was below 100, 15 percent more were reported to have repeated a grade than did those students whose Performance I.Q. was 100 or above. In grade block 4-6, of the students whose Performance I.Q. was below 100, approximately twice as many were reported to have repeated a grade as did those students whose Performance I.Q. was 100 or above. For students whose Verbal I.Q. was below 100, approximately four times as many were reported to have repeated a grade as did those students whose Verbal I.Q. was 100 or above.

The null hypothesis was rejected for the grade blocks 1-12 and 4-6. Comparisons involving grade blocks 1-3, 7-8, and 9-12 were not significant.

Tables C.8, D.3, E.3, and G.2 show that the variables (Full Scale I.Q. and school failure) for the grade block 1-12 and the grade block 4-6 correlate at the .001 level and that the grade block 1-3 and grade block 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 330 students whose Full Scale I.Q. fell below 100, 57.9 percent were not reported to have repeated a grade, 39.7 percent were reported to have repeated one grade, 2.1 percent were reported to have repeated two grades, and 0.3 percent were reported to have repeated three grades. Among 251 students whose Full Scale I.Q. was 100 or above, 82.1 percent were not reported to have repeated a grade, 16.3 percent were reported to have repeated one grade, 1.2 percent were reported to have repeated two grades, and 0.4 percent were reported to have repeated three grades.

The data for the grade block 4-6 reveal that 56.6 percent of 83 students whose Full Scale I.Q. fell below 100 were not reported to have repeated a grade, and 43.4 percent were reported to have repeated one grade. Among 58 students whose Full Scale I.Q. was 100 or above, 89.7 percent were not reported to have repeated a grade and 10.3 percent were reported to have repeated one grade.

The data for the grade block 1-3 reveal that 55.3 percent of 94 students whose Full Scale I.Q. fell below 100 were not reported to have repeated a grade, 40.4 percent were reported to have repeated one grade, while 4.3 percent were reported to have repeated two grades. Among 86 students whose Full Scale I.Q. was 100 or above, 76.7 percent were not reported to have repeated a grade, 22.1 percent were reported to have repeated one grade, and 1.2 percent were reported to have repeated two grades.

The data for the grade block 9-12 reveal that 60.9 percent of 64 students whose Full Scale I.Q. fell below 100 were not reported to

have repeated a grade, while 39.1 percent were reported to have repeated one grade. Among 68 students whose Full Scale I.Q. was 100 or above, 79.4 percent were not reported to have repeated one grade, 16.2 percent were reported to have repeated one grade, 2.9 percent were reported to have repeated two grades, and 1.5 percent were reported to have repeated three grades.

In summary, in the grade block 1-12 of the students whose Full Scale I.Q. was below 100, approximately twice as many students repeated a grade as did those students whose Full Scale I.Q. was 100 or above. In grade block 4-6, of the students whose Full Scale I.Q. was below 100, approximately four times as many repeated a grade as did those students whose Full Scale I.Q. was 100 or above. In the grade block 1-3, of the students whose Full Scale I.Q. was below 100, approximately twice as many repeated a grade as did those students whose Full Scale I.Q. was 100 or above. In the grade block 9-12, of the students whose Full Scale I.Q. was below 100, approximately twice as many repeated a grade as did those students whose Full Scale I.Q. was 100 or above.

The null hypothesis was rejected for the grade blocks 1-12, 1-3, 4-6, and 9-12. Comparisons involving grade block 7-8 were not significant.

Hypothesis 2.3

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and male siblings having a reading problem.

Hypothesis 2.3 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who had male siblings who were reported to have had a reading problem, and comparing them with the number of students who earned a score below 100 on each of the three measures and who had male siblings not reported to have had a reading problem. Similarly, the number of students who earned a score of 100 or above on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who had male siblings who were reported to have had a reading problem were compared with the number of students who earned a score of 100 or above on each of the three measures but who had male siblings who were not reported to have had a reading problem.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 2.4

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and female siblings having a reading problem.

Hypothesis 2.4 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal,

Performance, or Full Scale I.Q.--and who had female siblings who were reported to have had a reading problem, and comparing them with the number of students who earned a score below 100 on each of the three measures and who had female siblings not reported to have had a reading problem. Similarly, the number of students who earned a score of 100 or above on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who had female siblings who were reported to have had a reading problem were compared with the number of students who earned a score of 100 or above on each of the three measures but who had male siblings who were not reported to have had a reading problem.

None of the relationships were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 2.5

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and student behavior when faced with a difficult task.

Hypothesis 2.5 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who when faced with a difficult task were perceived by their teachers as either (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively, and comparing them with the number of students who earned a score of 100 or above on each of the three measures, respectively, and who when faced with a difficult task were perceived by their teacher as either (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively.

The statistical results are presented in Tables C.9, C.10, and C.11 and show that the variables (Verbal I.Q., Performance I.Q., and Full Scale I.Q., and student behavior when faced with a difficult task) for the grade block 1-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 308 students whose Verbal I.Q. fell below 100, 62.7 percent when faced with a difficult task were perceived as withdrawing from the situation, 18.5 percent were perceived as facing the task intelligently, and 18.8 percent were perceived as acting impulsively. Among 168 students whose Verbal I.Q. was 100 or above, 46.4 percent when faced with a difficult task were perceived as withdrawing from the situation, 30.4 percent were perceived as facing the task intelligently, and 23.2 percent were perceived as acting impulsively.

Table C.10 shows that of 224 students whose Performance I.Q. fell below 100, 63.4 percent when faced with a difficult task were perceived as withdrawing from the situation, 17.0 percent were perceived as facing the task intelligently, and 19.6 percent were perceived as acting impulsively. Among 252 students whose Performance I.Q. was 100 or above, 51.2 percent when faced with a difficult task were perceived as withdrawing from the situation, 27.8 percent were perceived as facing the task intelligently, and 21.0 percent were perceived as acting impulsively.

Table C.11 shows that of 272 students whose Full Scale I.Q. fell below 100, 62.9 percent when faced with a difficult task were perceived as withdrawing from a situation, 19.1 percent were perceived

as facing the task intelligently, and 18.0 percent were perceived as acting impulsively. Among 204 students whose Full Scale I.Q. was not below 100, 49.0 percent when faced with a difficult task were perceived as withdrawing from a situation, 27.5 percent were perceived as facing the task intelligently, and 23.5 percent were perceived as acting impulsively.

In summary, among students who have a history of low achievement in reading, a substantial portion tend to withdraw from a difficult task. Students at the lower end of the range of Verbal I.Q. are more likely at a ratio of 3:2 to withdraw from a difficult task than those students of the upper range of Verbal I.Q. Conversely, students with a Verbal I.Q. in the upper range at a ratio of almost 2:1 to those students with a Verbal I.Q. in the lower range will face a difficult task intelligently. Hence at a ratio of almost 4:1 students in the lower range of Performance I.Q. tend to withdraw from a difficult task compared to those students who faced the task intelligently. Students with Performance I.Q. in the upper range at a ratio of almost 2:1 tend to withdraw from a difficult task rather than face the task intelligently. Accordingly, whether or not the Verbal, Performance, or Full Scale I.Q. score is below 100 or above 100, more students when given a difficult task withdraw rather than face the task intelligently.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 2.6

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and student behavior when faced with a problem.

Hypothesis 2.6 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who when faced with a problem were perceived by their teachers as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive, and comparing them with the number of students who earned a score of 100 or above on each of the three measures, respectively, and who when faced with a problem were perceived as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in Tables C.12 and G.3 and show that the variables (Verbal I.Q. and student behavior when faced with a problem) for the grade block 1-12 correlate at the .01 level and for the grade block 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 337 students whose Verbal I.Q. fell below 100, 67.7 percent when faced with a problem were perceived as being easily discouraged, 27.9 percent were perceived as being reasonably persistent, and 4.5 percent were perceived as being blindly aggressive, while among 192 students whose Verbal I.Q. was 100 or above, 52.1 percent when faced with a problem were perceived as being easily discouraged, 42.7 percent were perceived as being reasonably persistent, and 5.2 percent were perceived as being blindly aggressive.

The data for the grade block 9-12 reveal that of 66 students whose Verbal I.Q. score fell below 100, 72.7 percent when faced with a problem were perceived as being easily discouraged, 27.3 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 52 students whose Verbal I.Q. was 100 or above, 38.5 percent when faced with a problem were perceived as being easily discouraged, 57.7 percent were perceived as being reasonably persistent, and 3.8 percent were perceived as being blindly aggressive.

In summary, the data for the grade block 1-12 point out that among students with a school history of low achievement in reading, a substantial number of students regardless of their Verbal I.Q. scores when faced with a difficult problem are easily discouraged even though substantially more students in the lower Verbal I.Q. range when faced with a problem are easily discouraged than those in the upper Verbal I.Q. range. Perhaps more significantly, many more students in the upper Verbal I.Q. range tend to be reasonably persistent when faced with a problem than do those whose Verbal I.Q. scores fall in the lower range. Whereas for the grade block 9-12 a very substantial percentage of students with a Verbal I.Q. in the upper range tend to be reasonably persistent when faced with a problem.

The null hypothesis was, therefore, rejected for the grade block 1-12 and for the grade block 9-12 for the Verbal I.Q. variable, but was not rejected for the Performance I.Q., or the Full Scale I.Q. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant on the Verbal I.Q., Performance I.Q., or Full Scale I.Q.

Hypothesis 2.7

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and student behavior with reference to authority.

Hypothesis 2.7 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who with reference to authority were perceived as: (1) being over-dependent, (2) being accepting, or (3) being resistant, and comparing them with the number of students who earned a score of 100 or above on each of the three measures, respectively, and who with reference to authority were perceived as: (1) being over-dependent, (2) being accepting, or (3) being resistant.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 2.8

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and student behavior with reference to leadership.

Hypothesis 2.8 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who with reference to leadership were perceived as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead, and comparing them with the number of students who earned a score of 100 or above on each of the three measures, respectively, and who with

reference to leadership were perceived as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead.

The statistical results are presented in Tables C.13, C.14, and G.4 and show that the variables (Verbal I.Q. and student behavior with reference to leadership) for the grade block 1-12 correlate at the .01 level, that the variables (Performance I.Q. and student behavior with reference to leadership) for the grade block 9-12 correlate at the .01 level, and the variables (Full Scale I.Q. and student behavior with reference to leadership) for the grade block 1-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 358 students whose Verbal I.Q. score fell below 100, 53.9 percent were generally avoiding leadership, 35.5 percent were at times either leading or following, and 10.6 percent were usually seeking to lead, while among 187 students whose Verbal I.Q. score was 100 or above, 40.6 percent were generally avoiding leadership, 30.0 percent were at times either leading or following, and 20.3 percent were usually seeking to lead.

The data for the grade block 9-12 reveal that of 46 students whose Performance I.Q. score fell below 100, 80.4 percent were generally avoiding leadership, 17.4 percent were at times leading or following, and 2.2 percent were usually seeking to lead, while among 67 students whose Performance I.Q. score was 100 or above, 52.2 percent were generally avoiding leadership, 35.8 percent were either leading or following, and 11.9 percent usually were seeking to lead.

The data for the grade block 1-12 reveal that of 316 students whose Full Scale I.Q. score was below 100, 55.1 percent were generally avoiding leadership, 33.5 percent were at times either leading or following, and 11.4 percent were usually seeking to lead, while among 229 students whose Full Scale I.Q. score was 100 or above, 41.5 percent were generally avoiding leadership, 41.0 percent were at times either leading or following, and 17.5 percent were usually seeking to lead.

In summary, relatively few students with a school history of low achievement in reading regardless of their Verbal I.Q. score tend to seek leadership roles among their peers. For grade block 9-12 it appears that older students in the upper Performance I.Q. range are more likely to seek leadership roles than students in the lower Performance I.Q. range. Accordingly, in grade block 1-12 there is an 8 percent increase in the number of students who at times either lead or follow and whose Full Scale I.Q. is 100 or above compared to those students whose Full Scale I.Q. is below 100.

The null hypothesis was rejected for the grade block 1-12 for the Verbal I.Q., for grade block 9-12 for the Performance I.Q., and for the grade block 1-12 for the Full Scale I.Q. Comparisons involving grade blocks 1-3, 4-6, and 7-8 were not significant.

Hypothesis 2.9

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and student behavior in the classroom.

Hypothesis 2.9 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who were perceived in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable, and comparing them with the number of students who earned a score of 100 or above on each of the three measures, respectively, and who were perceived in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable.

The statistical results are presented in Table G.5 and show that the variables (Verbal I.Q. and student behavior in the classroom) for the grade block 9-12 correlate at the .01 level.

The data for the grade block 9-12 reveal that of the 69 students whose Verbal I.Q. score fell below 100, 34.8 percent were perceived as being apathetic in the classroom, 44.9 percent were perceived as being emotionally calm, and 20.3 percent were perceived as being excitable, while among 51 students whose Verbal I.Q. score was 100 or above, 15.7 percent were perceived as being apathetic in the classroom, 72.5 percent were perceived as being emotionally calm in the classroom, and 11.8 percent were perceived as being excitable in the classroom.

In summary, students whose Verbal I.Q. score falls in the upper range are much more likely in substantial numbers to be emotionally

calm in the classroom than those whose Verbal I.Q. score falls in the lower range.

The null hypothesis was, therefore, rejected for the grade block 9-12. Comparisons involving grade blocks 1-12, 4-6, and 7-8 were not significant.

Hypothesis 2.10

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and student behavior in relationship with other children.

Hypothesis 2.10 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who were perceived in their association with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive, and comparing them with the number of students who earned a score of 100 or above on each of the three measures, respectively, and who were perceived in their associations with other students as: (1) being shy and bashful, (2) being responsive, and (3) being bold and aggressive.

None of the relationships among any of the grade block groupings were significant at the .01 level.

Hypothesis 2.11

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q. and student classroom communication pattern.

Hypothesis 2.11 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, and Full Scale I.Q.--and who were perceived as: (1) being quiet, (2) being normally communicative, or (3) being very talkative, and comparing them with the number of students who earned a score of 100 or above on each of the three measures, respectively, and who were identified in their relationship with other students as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Table C.15 and show that the variables (Verbal I.Q. and student classroom communication pattern) for the grade block 1-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 344 students whose Verbal I.Q. score fell below 100, 34.3 percent were perceived as being quiet in their communication pattern, 44.8 percent as being normally communicative in their communication pattern, and 20.9 percent as being very talkative in their communication pattern, while among 193 students whose Verbal I.Q. score was 100 or above, 39.9 percent were perceived as being quiet in their communication pattern, 30.6 percent were perceived as being normally communicative in their communication pattern, and 29.5 percent were perceived as being very talkative in their communication pattern.

In summary, it appears that more students with a Verbal I.Q. score below 100 are normally communicative in the classroom than students whose I.Q. score was 100 or above.

The null hypothesis was rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 2.12

Null Hypothesis:

There is no relationship between student Verbal I.Q., Performance I.Q., or Full Scale I.Q., and choice of playmates.

Hypothesis 2.12 was tested by taking the number of students who earned a score below 100 on each of the three measures--Verbal, Performance, or Full Scale I.Q.--and who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children and comparing them with the number of students who earned a score of 100 or above on each of the three measures, respectively, and who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Summary

A summarization of the relationship among the data provided by the Wechsler Intelligence Scale and student conduct and student promotion reveal that:

- students with a Verbal I.Q. of 100 or above were more likely to be perceived by their teachers as being well adjusted than being not well adjusted.
- among students whose Full Scale I.Q. fell below 100, twice as many repeated a grade as did those students whose Full Scale I.Q. was 100 or above.
- students in the grade block 4-6 whose I.Q. score fell below 100 on either Verbal or Full Scale were four times more likely to have repeated a grade than those whose I.Q. score was 100 or above on Verbal or Full Scale, respectively.
- regardless of the magnitude of either the Verbal or Performance I.Q., more students when faced with a difficult task tended to withdraw from the situation rather than face the task intelligently.
- more students with a Verbal I.Q. of 100 or above were reasonably persistent when faced with a problem than were those whose Verbal I.Q. fell below 100.
- the magnitude of the Verbal I.Q. does not appear to be a factor in the exercise of leadership. (However, more students with a Performance I.Q. of 100 or above in grade block 9-12 or a Full Scale I.Q. of 100 or above in grade block 1-12 appeared to either seek to lead or lead/follow.)
- students in grade block 9-12 whose Verbal I.Q. is 100 or above were more likely to be emotionally calm and less apathetic than students whose Verbal I.Q. fell below 100.
- in grade block 1-12 more students whose Verbal I.Q. score fell below 100 were normally communicative and less talkative than were students whose Verbal I.Q. was 100 or above.

Student Academic Problem

Classroom teachers described for each student in the sample the academic problem which according to their observations appeared to be the primary handicapping condition in reading acquisition. These handicapping conditions have been categorized as follows:

1. Deficiency in components of the reading act;
2. Problem with intellectual functioning;

3. Problem in social or emotional behavior;
4. Deficiency in components of the reading act and problem with intellectual functioning;
5. Deficiency in components of the reading act and problem with sensory or perception;
6. Deficiency in components of the reading act and problem in emotional or social behavior;
7. Problem with intellectual functioning and sensory or perception; and
8. Problem with intellectual functioning and problem in emotional or social behavior.

Relationships involving handicapping conditions falling in categories 2, 5, 7, and 8 were not reported because the incidence of these handicapping conditions reported by teachers was too minimal to warrant inclusion.

Fifteen null hypotheses were formulated to test whether significant relationships exist between the academic problems as categorized and each of the following fifteen variables:

1. Verbal I.Q.;
2. Performance I.Q.;
3. Full Scale I.Q.;
4. Adjustment in school environment;
5. School failure;
6. Acceptance by peers;
7. Acceptance by adults;
8. Behavior when faced with a difficult task;
9. Behavior when faced with a problem;

10. Behavior with reference to authority;
11. Behavior with reference to leadership;
12. Behavior in the classroom;
13. Relationship with other students;
14. Classroom communication pattern; and
15. Choice of playmates.

Hypothesis 3.1

Null Hypothesis:

There is no relationship between the academic problem as categorized and student Verbal I.Q.

Hypothesis 3.1 was tested by comparing each category of academic problems with the number of students earning a Verbal I.Q. score below 100 and those earning a Verbal I.Q. score of 100 or above.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 3.2

Null Hypothesis:

There is no relationship between the academic problem as categorized and student Performance I.Q.

Hypothesis 3.2 was tested by comparing each category of academic problems with the number of students earning a Performance I.Q. score below 100 and those earning a Performance I.Q. score of 100 or above.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 3.3

Null Hypothesis:

There is no relationship between the academic problem as categorized and Full Scale I.Q.

Hypothesis 3.3 was tested by comparing each category of academic problems with the number of students earning a Full Scale I.Q. score below 100 and those earning a Full Scale I.Q. score of 100 or above.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 3.4

Null Hypothesis:

There is no relationship between the academic problem as categorized and adjustment of the student.

Hypothesis 3.4 was tested by comparing each category of academic problems with the number of students who were perceived by their classroom teachers as being well adjusted or not being well adjusted.

The statistical results are presented in Tables C.16 and D.4 and show that the variables (academic problems and student adjustment) correlate for the grade block 1-12 at the .001 level and for the grade block 1-3 at the .01 level.

The data for the grade block 1-12 reveal that of 243 students who were identified as having a deficiency in components of the reading act, 63.8 percent were perceived by their teachers as being well adjusted, and 36.2 percent were perceived by their teachers as

being not well adjusted. Among 67 students who were identified as having an emotional-social behavior problem, 37.3 percent were perceived by their teachers as being well adjusted, and 62.7 percent were perceived by their teachers as being not well adjusted. Among 75 students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 49.3 percent were perceived by their teachers as being well adjusted, and 50.7 percent were perceived by their teachers as being not well adjusted. Among 68 students who were identified as having a deficiency in the components of reading act/emotional-social behavior problem, 41.2 percent were perceived by their teachers as being well adjusted, and 58.8 percent were perceived by their teachers as being not well adjusted.

The data for the grade block 1-3 reveal that of 69 students who were identified as having a deficiency in components of the reading act, 66.7 percent were perceived by their teachers as being well adjusted, and 33.3 percent were perceived by their teachers as being not well adjusted. Among 22 students who were identified as having an emotional-social behavior problem, 45.5 percent were perceived by their teachers as being well adjusted and 54.5 percent were perceived by their teachers as being not well adjusted. Among 19 students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 42.1 percent were perceived by their teachers as being well adjusted, and 57.7 percent were perceived by their teachers as being not well adjusted. Among 23 students who were identified as having a deficiency in the components of the reading

act/emotional-social behavior problem, 30.4 percent were perceived by their teachers as being well adjusted, and 69.6 percent were perceived by their teachers as being not well adjusted.

In summary, in grade block 1-12, of the students identified as having a deficiency in components of the reading act, more than 63 percent were perceived by their teachers as being well adjusted. Among the students identified as having an emotional-social behavior problem, more than 62 percent were perceived by their teachers as being not well adjusted.

In grade block 1-3, of the students identified as having a deficiency in the components of the reading act, twice as many were perceived by their teachers as being well adjusted compared to students perceived as being not well adjusted. The number of students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem and perceived by their teachers as being not well adjusted exceeds by 39 percent those perceived by their teachers as being well adjusted and having a deficiency in the components of the reading act/emotional-social behavior problem.

The null hypothesis was, therefore, rejected for the grade blocks 1-12 and 1-3. Comparisons involving grade blocks 4-6, 7-8, and 9-12 were not significant.

Hypothesis 3.5

Null Hypothesis:

There is no relationship between the academic problem as categorized and incidence of school failure.

Hypothesis 3.5 was tested by comparing each category of academic problems with the incidence of school failure.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 3.6

Null Hypothesis:

There is no relationship between the academic problem as categorized and acceptance by peers.

Hypothesis 3.6 was tested by comparing each category of academic problems with the number of students who were perceived by their teachers as being well liked or being not well liked by other students.

The statistical results are presented in Table C.17 and show that the variables (academic problems and acceptance by peers) correlate for grade block 1-12 at the .01 level.

The data for the grade block 1-12 reveal that of 263 students who were identified as having a deficiency in components of the reading act, 79.1 percent were perceived by their teachers as being well liked by peers, and 20.9 percent were perceived by their teachers as being not well liked by peers. Among 76 students who were identified as having emotional-social behavior problem, 65.8 percent were perceived by their teachers as being well liked by peers, and 34.2 percent were

perceived by their teachers as being not well liked by peers. Among 84 students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 63.1 percent were perceived by their teachers as being well liked by peers, and 36.9 percent were perceived by their teachers as being not well liked by peers. Among 74 students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem, 74.3 percent were perceived by their teachers as being well liked by peers, and 25.7 percent were perceived by their teachers as being not well liked by peers.

In summary, 63 to 76 percent of the students in grade block 1-12 were perceived by their teachers as being well liked by peers regardless of their academic problems.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 3.7

Null Hypothesis:

There is no relationship between the academic problem as categorized and acceptance by adults.

Hypothesis 3.7 was tested by comparing each category of academic problems with the number of students who were perceived by their teachers as being well liked or being not well liked by adults.

The statistical results are presented in Tables C.18 and F.1 and show that the variables (academic problems and acceptance by adults)

correlate for grade block 7-8 at the .001 level and for grade block 1-12 at the .01 level.

The data for the grade block 7-8 reveal that of 48 students who were identified as having a deficiency in components of the reading act, 91.7 percent were perceived by their teachers as being well liked by adults, and 8.3 percent were perceived by their teachers as being not well liked by adults. Among 11 students who were identified as having an emotional-social behavior problem, 54.5 percent were perceived by their teachers as being well liked by adults, and 45.5 percent were perceived by their teachers as being not well liked by adults. Among 15 students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 60.0 percent were perceived by their teachers as being well liked by adults, and 40.0 percent were perceived by their teachers as being not well liked by adults. Among 20 students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem, 90.0 percent were perceived by their teachers as being well liked by adults, and 10.0 percent were perceived by their teachers as being not well liked by adults.

The data for the grade block 1-12 reveal that of 232 students who were identified as having a deficiency in components of the reading act, 87.5 percent were perceived by their teachers as being well liked by adults, and 12.5 percent were perceived by their teachers as being not well liked by adults. Among 62 students who were identified as having an emotional-social behavior problem, 77.4 percent were

perceived by their teachers as being well liked by adults, and 22.6 percent were perceived by their teachers as being not well liked by adults. Among 66 students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem, 81.8 percent were perceived by their teachers as being well liked by adults, and 18.2 percent were perceived by their teachers as being not well liked by adults.

In summary, in grade blocks 1-12 and 7-8, more than 75 percent of the students were perceived as being well liked by adults regardless of their academic problems.

The null hypothesis was, therefore, rejected for the grade blocks 7-8 and 1-12. Comparisons involving grade blocks 1-3, 4-6, and 9-12 were not significant.

Hypothesis 3.8

Null Hypothesis:

There is no relationship between the academic problem as categorized and student behavior when faced with a difficult task.

Hypothesis 3.8 was tested by comparing each category of academic problems with the number of students who when faced with a difficult task were identified as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 3.9

Null Hypothesis:

There is no relationship between the academic problem as categorized and behavior when faced with a problem.

Hypothesis 3.9 was tested by comparing each category of academic problems with the number of students who when faced with a problem were identified as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in Table C.19 and indicate that the variables (academic problems and behavior when faced with a problem) correlate for the grade block 1-12 at the .01 level.

The data for the grade block 1-12 reveal that of 249 students who were identified as having a deficiency in components of the reading act, 57.0 percent when faced with a problem were perceived by their teachers as being easily discouraged; 39.0 percent were perceived as being reasonably persistent; and 4.0 percent were perceived as being blindly aggressive. Among 76 students who were identified as having an emotional-social behavior problem, 73.7 percent when faced with a problem were perceived as being easily discouraged; 22.4 percent were perceived as being reasonably persistent; and 3.9 percent were perceived as being blindly aggressive. Among 75 students who were identified as having a deficiency in the components on the reading act/intellectual functioning, 65.3 percent when faced with a problem were perceived as being easily discouraged; 30.7 percent

were perceived as being reasonably persistent; and 4.0 percent were perceived as being blindly aggressive. Among 70 students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem, 74.3 percent when faced with a problem were perceived as being easily discouraged; 21.4 percent were perceived as being reasonably persistent; and 4.3 percent were perceived as being blindly aggressive.

In summary, in grade block 1-12, of the students who were identified as either having an emotional-social behavior problem or a deficiency in the components of the reading act/emotional-social behavior problem, approximately 75 percent were easily discouraged when faced with a problem. Of the students who were identified as either having a deficiency in the components of the reading act or a deficiency in the components of the reading act/intellectual functioning approximately 30 to 39 percent were reasonably persistent when faced with a problem.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 3.10

Null Hypothesis:

There is no relationship between the academic problem as categorized and student behavior with reference to authority.

Hypothesis 3.10 was tested by comparing each category of academic problems with the number of students who with reference to

authority were identified as: (1) being over-dependent, (2) being accepting, or (3) being resistant.

The statistical results are presented in Table C.20 and indicate that the variables (academic problems and behavior with reference to authority) correlate for the grade block 1-12 at the .01 level.

The data for the grade block 1-12 reveal that of 258 students who were identified as having a deficiency in components of the reading act, 10.5 percent were identified as being over-dependent, 78.7 percent were identified as being accepting, and 10.9 percent were identified as being resistant. Among 75 students who were identified as having an emotional-social behavior problem, 18.7 percent were identified as being over-dependent, 54.7 percent were identified as being accepting, and 26.7 percent were identified as being resistant. Among 71 students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 18.3 percent were identified as being over-dependent, 71.8 percent were identified as being accepting, and 9.9 percent were identified as being resistant. Among 71 students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem, 12.7 percent were identified as being over-dependent, 70.4 percent were identified as being accepting, and 16.9 percent were identified as being resistant.

In summary, in grade block 1-12 regardless of the academic problem, 54 to 78 percent of the students with reference to authority

were accepting, 10 to 18 percent were over-dependent, and 10 to 26 percent were resistant.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 3.11

Null Hypothesis:

There is no relationship between the academic problem as categorized and student behavior with reference to leadership.

Hypothesis 3.11 was tested by comparing each category of academic problems with the number of students who in their association with other students were identified as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead.

The statistical results are presented in Table D.5 and indicate that the variables (academic problems and behavior with reference to leadership) correlate for the grade block 1-3 at the .01 level.

The data for the grade block 1-3 reveal that of 78 students who were identified as having a deficiency in components of the reading act, 38.5 percent were identified as generally avoiding leadership, 53.8 percent were identified as at times either leading or following, and 7.7 percent were identified as usually seeking to lead. Among 26 students who were identified as having an emotional-social behavior problem, 50.0 percent were identified as generally avoiding leadership, 30.8 percent were identified as at times either leading or following,

and 19.2 percent were identified as usually seeking to lead. Among 20 students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 70.0 percent were identified as generally avoiding leadership, 15.0 percent were identified as at times leading or following, and 15.0 percent were identified as usually seeking to lead. Among 24 students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem, 37.5 percent were identified as generally avoiding leadership, 29.2 percent were identified as at times either leading or following, and 33.3 percent were identified as usually seeking to lead.

In summary, in grade block 1-3, of the students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 70 percent generally avoid leadership. Students who were identified as having a deficiency in the components of the reading act/emotional-social problem were more likely to seek leadership than students having a deficiency in the components of the reading act.

The null hypothesis was, therefore, rejected for the grade block 1-3. Comparisons involving grade blocks 1-12, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 3.12

Null Hypothesis:

There is no relationship between the academic problem as categorized and student behavior in the classroom.

Hypothesis 3.12 was tested by comparing each category of academic problem with the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 3.13

Null Hypothesis:

There is no relationship between the academic problem as categorized and student relationship with other students.

Hypothesis 3.13 was tested by comparing each category of academic problems with the number of students who were identified in their association with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 3.14

Null Hypothesis:

There is no relationship between the academic problem as categorized and classroom communication pattern.

Hypothesis 3.14 was tested by comparing each category of academic problems with the number of students who were identified

in the classroom as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Table C.21 and indicate that the variables (academic problems and classroom communication pattern) correlate for the grade block 1-12 at the .01 level.

The data for the grade block 1-12 reveal that of 263 students who were identified as having a deficiency in components of the reading act, 42.2 percent were identified as being quiet in their communication pattern, 37.6 percent were identified as being normally communicative in their communication pattern, and 20 percent were identified as being very talkative in their communication pattern. Among 71 students who were identified as having an emotional-social behavior problem, 22.5 percent were identified as being quiet in their communication pattern, 42.3 percent were identified as being normally communicative in their communication pattern, and 35.2 percent were identified as being very talkative in their communication pattern. Among 79 students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 32.9 percent were identified as being quiet in their communication pattern, 45.6 percent were identified as being normally communicative in their communication pattern, and 21.5 percent were identified as being very talkative in their communication pattern. Among 71 students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem, 25.4 percent were identified as being quiet in

their communication pattern, 40.8 percent were identified as being normally communicative in their communication pattern, and 33.8 percent were identified as being very talkative in their communication pattern.

In summary, in grade block 1-12, less than 50 percent of the students having an academic problem were normally communicative. Of the students identified as having a deficiency in the components of the reading act/emotional-social problem more were talkative than students with any of the other academic problems.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 3.15

Null Hypothesis:

There is no relationship between the academic problem as categorized and choice of playmates.

Hypothesis 3.15 was tested by comparing each category of academic problems with the number of students who were identified as generally associating with: (1) younger students, (2) students their own age, or (3) older students.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Summary

A summarization of the relationship between student academic problems and student conduct reveals that:

- students having as their academic problem either an emotional-social behavior problem or a deficiency in the components of the reading act/emotional-social behavior problem were more likely to be perceived as being not well adjusted.
- in grade block 1-12, 63 to 76 percent of the students were perceived by their teachers as being well liked by peers regardless of their academic problems.
- as the academic problem becomes more complex, students were more easily discouraged when faced with a problem.
- in grade block 1-12, 54 to 78 percent of the students were identified as being accepting with reference to authority regardless of their academic problem.
- in grade block 1-3, students who were identified as having either an emotional-social behavior problem or a deficiency in the components of the reading act/emotional-social behavior problem were more likely to seek leadership than students with any of the other academic problems.
- in grade block 1-12, less than 50 percent of the students having an academic problem were normally communicative.
- of the students identified as having a deficiency in the components of the reading act/emotional-social problem, more were talkative than students with any of the other academic problems.

Adjustment in School Environment

Each student was identified by the classroom teacher as being either well adjusted or not well adjusted. Nine null hypotheses were formulated to test whether significant relationships exist between student adjustment and each of the following variables:

1. School failure;
2. Behavior when faced with a difficult task;
3. Behavior when faced with a problem;
4. Behavior with reference to authority;

5. Behavior with reference to leadership;
6. Behavior in the classroom;
7. Relationship with other students;
8. Classroom communication pattern; and
9. Choice of playmates.

Hypothesis 4.1

Null Hypothesis:

There is no relationship between student adjustment and incidence of school failure.

Hypothesis 4.1 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the incidence of school failure.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 4.2

Null Hypothesis:

There is no relationship between student adjustment and student behavior when faced with a difficult task.

Hypothesis 4.2 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the number of students who when faced with a difficult task were identified as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively.

The statistical results are presented in Tables C.22, D.6, E.4, F.2, and G.6 and show that the variables (student adjustment and

student behavior when faced with a difficult task) for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 245 students perceived by their teachers as being well adjusted, 41.2 percent when faced with a difficult task were identified as withdrawing from the situation, 43.7 percent were perceived as facing the task intelligently, and 15.1 percent were perceived as acting impulsively. Among 212 students perceived by their teachers as being not well adjusted, 70.8 percent when faced with a difficult task were perceived as withdrawing from the situation, 4.7 percent were perceived as facing the task intelligently, and 24.5 percent were perceived as acting impulsively.

The data for the grade block 1-3 reveal that of 73 students perceived by their teachers as being well adjusted, 49.3 percent when faced with a difficult task were perceived as withdrawing from the situation, 34.2 percent were perceived as facing the task intelligently, and 16.4 percent were perceived as acting impulsively. Among 59 students perceived by their teachers as being not well adjusted, 67.8 percent when faced with a difficult task were perceived as withdrawing from the situation, 5.1 percent were perceived as facing the task intelligently, and 27.1 percent were perceived as acting impulsively.

The data for the grade block 4-6 reveal that of 65 students perceived by their teachers as being well adjusted, 41.5 percent when faced with a difficult task were perceived as withdrawing from the situation, 35.4 percent were perceived as facing the task intelligently,

and 23.1 percent were perceived as acting impulsively. Among 53 students perceived by their teachers as being not well adjusted, 71.7 when faced with a difficult task were perceived as withdrawing from the situation, 1.9 percent were perceived as facing the task intelligently, and 26.4 percent were perceived as acting impulsively.

The data for the grade block 7-8 reveal that of 50 students perceived by their teachers as being well adjusted, 52.0 percent when faced with a difficult task were perceived as withdrawing from the situation, 42.0 percent were perceived as facing the task intelligently, and 6.0 percent were perceived as acting impulsively. Among 56 students perceived by their teachers as being not well adjusted, 66.1 percent when faced with a difficult task were perceived as withdrawing from the situation, 5.4 percent were perceived as facing the task intelligently, and 28.6 percent were perceived as acting impulsively.

The data for the grade block 9-12 reveal that of 57 students perceived by their teachers as being well adjusted, 21.1 percent when faced with a difficult task were perceived as withdrawing from the situation, 66.7 percent were perceived as facing the task intelligently, 12.3 percent were perceived as acting impulsively. Among the 44 students perceived by their teachers as being not well adjusted, 79.5 percent when faced with a difficult task were perceived as withdrawing from the situation, 6.8 percent were perceived as facing the task intelligently, and 13.6 percent were perceived as acting impulsively.

In summary, in grade block 1-12 among students perceived by their teachers as well adjusted, the percentage of those withdrawing from the task is approximately the same as the percentage of those facing the task intelligently (ratio of 1:1).

In grade blocks 1-12 and 7-8 the ratio of students perceived by their teachers as being not well adjusted is approximately 14:1 for those withdrawing from the task and those facing the task intelligently.

In grade block 1-3, of the students perceived by their teachers as being not well adjusted, 71.0 percent when faced with a difficult task withdrew from the situation in comparison to 2 percent who faced the task intelligently.

The null hypothesis was, therefore, rejected for all the grade blocks, 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 4.3

Null Hypothesis:

There is no relationship between student adjustment and student behavior when faced with a problem.

Hypothesis 4.3 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the number of students who when faced with a problem were perceived as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in Tables C.23, D.7, E.5, F.3, and G.7 and show that the variables (student adjustment

and student behavior when faced with a problem) for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 269 students perceived by the teacher as being well adjusted, 44.2 percent when faced with a difficult problem were perceived as being easily discouraged, 53.2 percent were perceived as being reasonably persistent, and 2.6 percent were perceived as being blindly aggressive. Among 231 students perceived by the teacher as being not well adjusted, 79.2 percent when faced with a problem were perceived as being easily discouraged, 13.9 percent were perceived as being reasonably persistent, and 6.9 percent were perceived as being blindly aggressive.

The data for the grade block 1-3 reveal that of 84 students perceived by the teacher as being well adjusted, 52.4 percent when faced with a problem were perceived as being easily discouraged, 42.9 percent were perceived as being reasonably persistent, and 4.8 percent were perceived as being blindly aggressive. Among 69 students perceived by their teachers as being not well adjusted, 73.9 percent when faced with a problem were perceived as being easily discouraged, 14.5 percent were perceived as being reasonably persistent, and 11.6 percent were perceived as being blindly aggressive.

The data for the grade block 4-6 reveal that of 68 students perceived by their teachers as being well adjusted, 44.1 percent when faced with a problem were perceived as being easily discouraged, 51.5 percent were perceived as being reasonably persistent, and 4.4 percent were perceived as being blindly aggressive. Among 58 students

perceived by the teacher as being not well adjusted, 79.3 percent when faced with a problem were perceived as being easily discouraged, 17.2 percent were perceived as being reasonably persistent, and 3.4 percent were perceived as being blindly aggressive.

The data for the grade block 7-8 reveal that of 53 students perceived by their teachers as being well adjusted, 45.3 percent when faced with a problem were perceived as being easily discouraged, 54.7 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 58 students perceived by their teachers as being not well adjusted, 79.3 percent when faced with a problem were perceived as being easily discouraged, 13.8 percent were perceived as being reasonably persistent, and 6.9 percent were perceived as being blindly aggressive.

The data for the grade block 9-12 reveal that of 64 students perceived by their teachers as being well adjusted, 32.8 percent when faced with a problem were perceived as being easily discouraged, 67.2 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 46 students perceived by their teachers as being not well adjusted, 87.0 percent when faced with a problem were perceived as being easily discouraged, 8.7 percent were perceived as being reasonably persistent, and 4.3 percent were perceived as being blindly aggressive.

In summary, in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, from 7 to 34 percent more of the students perceived by their teachers as being well adjusted were reasonably persistent, than being easily

discouraged when faced with a problem. For students perceived by their teachers as being not well adjusted, there was a steady increase through the grades from 59 to 76 percent more who were easily discouraged than reasonably persistent when faced with a problem.

The null hypothesis was, therefore, rejected for all the grade blocks, 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 4.4

Null Hypothesis:

There is no relationship between student adjustment and student behavior with reference to authority.

Hypothesis 4.4 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the number of students who were identified as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority.

The statistical results are presented in Tables C.24, D.8, E.6, F.4, and G.8 and show that the variables (student adjustment and student behavior with reference to authority) for the grade blocks 1-12, 1-3, 4-6, and 9-12 correlate at the .001 level and for the grade block 7-8 at the .01 level.

The data for the grade block 1-12 reveal that of 285 students perceived by their teachers as being well adjusted, 9.1 percent were over-dependent with reference to authority, 86.0 percent were accepting, and 4.9 percent were resistant. Among 216 students perceived by their

teachers as being not well adjusted, 16.7 percent were over-dependent with reference to authority, 58.3 percent were accepting, and 25.0 percent were resistant.

The data for the grade block 1-3 reveal that of 89 students perceived by their teachers as being well adjusted, 11.2 percent were over-dependent with reference to authority, 84.3 percent were accepting, and 4.5 percent were resistant. Among 62 students perceived by their teachers as being not well adjusted, 17.7 percent were over-dependent with reference to authority, 61.3 percent were accepting, and 21.0 percent were resistant.

The data for the grade block 4-6 reveal that of 73 students perceived by their teachers as being well adjusted, 9.6 percent were over-dependent with reference to authority, 84.9 percent were accepting, and 5.5 percent were resistant. Among 54 students perceived by their teachers as being not well adjusted, 18.5 percent were over-dependent with reference to authority, 53.7 percent were accepting, and 27.8 percent were resistant.

The data for the grade block 9-12 reveal that of 65 students perceived by their teachers as being well adjusted, 6.2 percent were over-dependent with reference to authority, 87.7 percent were accepting, and 6.2 percent were resistant. Among 45 students perceived by their teachers as being not well adjusted, 20.0 percent were over-dependent with reference to authority, 53.3 percent were accepting, and 26.7 percent were resistant.

The data for grade block 7-8 reveal that of 58 students perceived by their teachers as being well adjusted, 8.6 percent were over-dependent with reference to authority, 87.9 percent were accepting, and 3.4 percent were resistant. Among 55 students perceived by their teachers as being not well adjusted, 10.9 percent were over-dependent with reference to authority, 63.6 percent were accepting, and 25.5 percent were resistant.

In summary, in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, approximately 5 percent of the students perceived by their teachers as being well adjusted were described as resistant to authority, whereas approximately 25 percent of those students perceived by their teachers as being not well adjusted were resistant to authority.

The null hypothesis was, therefore, rejected for all the grade blocks, 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 4.5

Null Hypothesis:

There is no relationship between student adjustment and student behavior with reference to leadership.

Hypothesis 4.5 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the number of students in their relationship with other students who were identified as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead.

The statistical results are presented in Tables C.25, D.9, and G.9 and show that the variables (student adjustment and student behavior with reference to leadership) for the grade blocks 1-12, 1-3, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 283 students perceived by their teachers as being well adjusted, 37.5 percent were generally avoiding leadership, 51.2 percent were at times either leading or following, and 11.3 percent were usually seeking to lead, while among 235 students who were perceived by their teachers as being not well adjusted, 58.3 percent were generally avoiding leadership, 24.7 percent were at times either leading or following, and 17.0 percent were usually seeking to lead.

The data for the grade block 1-3 reveal that of 91 students perceived by the teachers as being well adjusted, 35.2 percent were generally avoiding leadership, 56.0 percent were at times either leading or following, and 8.8 percent were usually seeking to lead. Among 71 students who were perceived by their teachers as being not well adjusted, 47.9 percent were generally avoiding leadership, 25.4 percent were at times either leading or following, and 26.8 percent were usually seeking to lead.

The data for the grade block 9-12 reveal that of 59 students perceived by the teachers as being well adjusted, 40.7 percent were generally avoiding leadership, 49.2 percent were at times either leading or following, and 10.2 percent were usually seeking to lead. Among 44 students who were perceived by their teachers as being not

well adjusted, 84.1 percent were generally avoiding leadership, 11.4 percent were at times either leading or following, and 4.5 percent were usually seeking to lead.

In summary, in grade blocks 1-12 and 1-3 of the students who were perceived by their teachers as being not well adjusted, approximately 50 percent generally avoid leadership, while in grade block 9-12 approximately 84 percent generally avoid leadership.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 9-12. Comparisons involving grade blocks 4-6 and 7-8 were not significant.

Hypothesis 4.6

Null Hypothesis:

There is no relationship between adjustment and student behavior in the classroom.

Hypothesis 4.6 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable.

The statistical results are presented in Tables C.26, D.10, E.7, F.5, and G.10 and show that the variables (student adjustment and student behavior in the classroom) for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 275 students perceived by the teacher as being well adjusted, 10.9 percent were

apathetic in the classroom, 69.5 percent were emotionally calm in the classroom, and 19.6 percent were excitable in the classroom, while among 227 students perceived by the teacher as being not well adjusted, 34.4 percent were apathetic in the classroom, 21.6 percent were emotionally calm in the classroom, and 44.1 percent were excitable in the classroom.

The data for the grade block 1-3 reveal that of 87 students perceived by the teacher as being well adjusted, 16.1 percent were apathetic in the classroom, 62.1 percent were emotionally calm in the classroom, and 21.8 percent were excitable in the classroom, while among 69 students perceived by the teacher as being not well adjusted, 29.0 percent were apathetic in the classroom, 24.6 percent were emotionally calm in the classroom, and 46.4 percent were excitable in the classroom.

The data for the grade block 4-6 reveal that of 72 students perceived by the teacher as being well adjusted, 9.7 percent were apathetic in the classroom, 65.3 percent were emotionally calm in the classroom, and 25.0 percent were excitable in the classroom, while among 56 students perceived by the teacher as being not well adjusted, 23.2 percent were apathetic in the classroom, 16.1 percent were emotionally calm in the classroom, and 60.7 percent were excitable in the classroom.

The data for the grade block 7-8 reveal that of 54 students perceived by the teacher as being well adjusted, 7.4 percent were apathetic in the classroom, 75.9 percent were emotionally calm in

the classroom, and 16.7 percent were excitable in the classroom, while among 55 students perceived by the teacher as being not well adjusted, 43.6 percent were apathetic in the classroom, 18.2 percent were emotionally calm in the classroom, and 38.2 percent were excitable in the classroom.

The data for the grade block 9-12 reveal that of 62 students perceived by the teacher as being well adjusted, 8.1 percent were apathetic in the classroom, 79.0 percent were emotionally calm in the classroom, and 12.9 percent were excitable in the classroom, while among 47 students perceived by the teacher as being not well adjusted, 44.7 percent were apathetic in the classroom, 27.7 percent were emotionally calm in the classroom, and 27.7 percent were excitable in the classroom.

In summary, among the students perceived as being not well adjusted it appears that more were apathetic, more were excitable, and fewer were emotionally calm than were students perceived as being well adjusted. The presence of apathy among students in grade blocks 7-8 and 9-12 was approximately twice that observed among students in grade blocks 1-3 and 4-6.

The null hypothesis was, therefore, rejected for all the grade blocks, 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 4.7

Null Hypothesis:

There is no relationship between student adjustment and student relationship with other students.

Hypothesis 4.7 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the number of students who were identified in their relationship with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.27, D.11, E.8, F.6, and G.11 and show that the variables (student adjustment and student relationship with other students) for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 275 students perceived by their teachers as being well adjusted, 12.0 percent were shy and bashful in their relationship with other students, 78.2 percent were responsive in their relationship with other students, and 9.8 percent were bold and aggressive in their relationship with other students, while among 209 students perceived by their teachers as being not well adjusted, 34.4 percent were shy and bashful in their relationship with other students, 34.9 percent were responsive in their relationship with other students, and 30.6 percent were bold and aggressive.

The data for the grade block 1-3 reveal that of 82 students perceived by their teachers as being well adjusted, 9.8 percent were shy and bashful in their relationship with other students, 79.3 percent

were responsive in their relationship with other students, and 11.0 percent were bold and aggressive in their relationship with other students, while among 60 students perceived by the teacher as being not well adjusted, 23.3 percent were shy and bashful in their relationship with other students, 33.3 percent were responsive in their relationship with other students, and 43.3 percent were bold and aggressive.

The data for the grade block 4-6 reveal that of 77 students perceived by their teachers as being well adjusted, 11.7 percent were shy and bashful in their relationship with other students, 76.6 percent were responsive in their relationship with other students, and 11.7 percent were bold and aggressive in their relationship with other students, while among 52 students perceived by their teachers as being not well adjusted, 25.0 percent were shy and bashful in their relationship with other students, 36.5 percent were responsive in their relationship with other students, and 38.5 percent were bold and aggressive in their relationship with other students.

The data for the grade block 7-8 reveal that of 54 students perceived by their teachers as being well adjusted, 11.1 percent were shy and bashful in their relationship with other students, 75.9 percent were responsive in their relationship with other students, and 0 percent were bold and aggressive in their relationship with other students, while among 55 students perceived by their teachers as being not well adjusted, 43.6 percent were shy and bashful in their relationship with other students, 34.5 percent were responsive in their relationship with

other students, and 0 percent were bold and aggressive in their relationship with other students.

The data for the grade block 9-12 reveal that of 62 students perceived by their teachers as being well adjusted, 16.1 percent were shy and bashful in their relationship with other students, 80.6 percent were responsive in their relationship with other students, and 3.2 percent were bold and aggressive in their relationship with other students, while among 42 students perceived by their teachers as being not well adjusted, 50.0 percent were shy and bashful in their relationship with other students, 35.7 percent were responsive in their relationship with other students, and 14.3 percent were bold and aggressive in their relationship with other students.

In summary, in grade blocks 1-3, 4-6, 7-8, and 9-12 among students perceived by their teachers as being well adjusted over twice as many in their relationship to other students were responsive when compared to students who were perceived as being not well adjusted. In grade blocks 1-3 and 4-6, three times as many students who were perceived as being not well adjusted were described as being bold and aggressive when compared with students who were perceived as being well adjusted. In grade blocks 1-12, 1-3, and 4-6, twice as many students perceived as being not well adjusted were described as being shy and bashful when compared with students who were perceived as being well adjusted. In grade block 7-8, the ratio of shy and bashful students who were perceived as being not well adjusted compared with students who were perceived as being well adjusted was approximately 4:1 and in grade block 9-12 the ratio was approximately 3:1.

The null hypothesis was, therefore, rejected for all the grade blocks, 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 4.8

Null Hypothesis:

There is no relationship between student adjustment and classroom communication pattern.

Hypothesis 4.8 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the number of students who were identified as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Tables C.28, D.12, and G.12 and show that the variables (student adjustment and classroom communication pattern) for the grade blocks 1-12 and 9-12 correlate at the .001 level and for grade block 1-3 correlate at the .01 level.

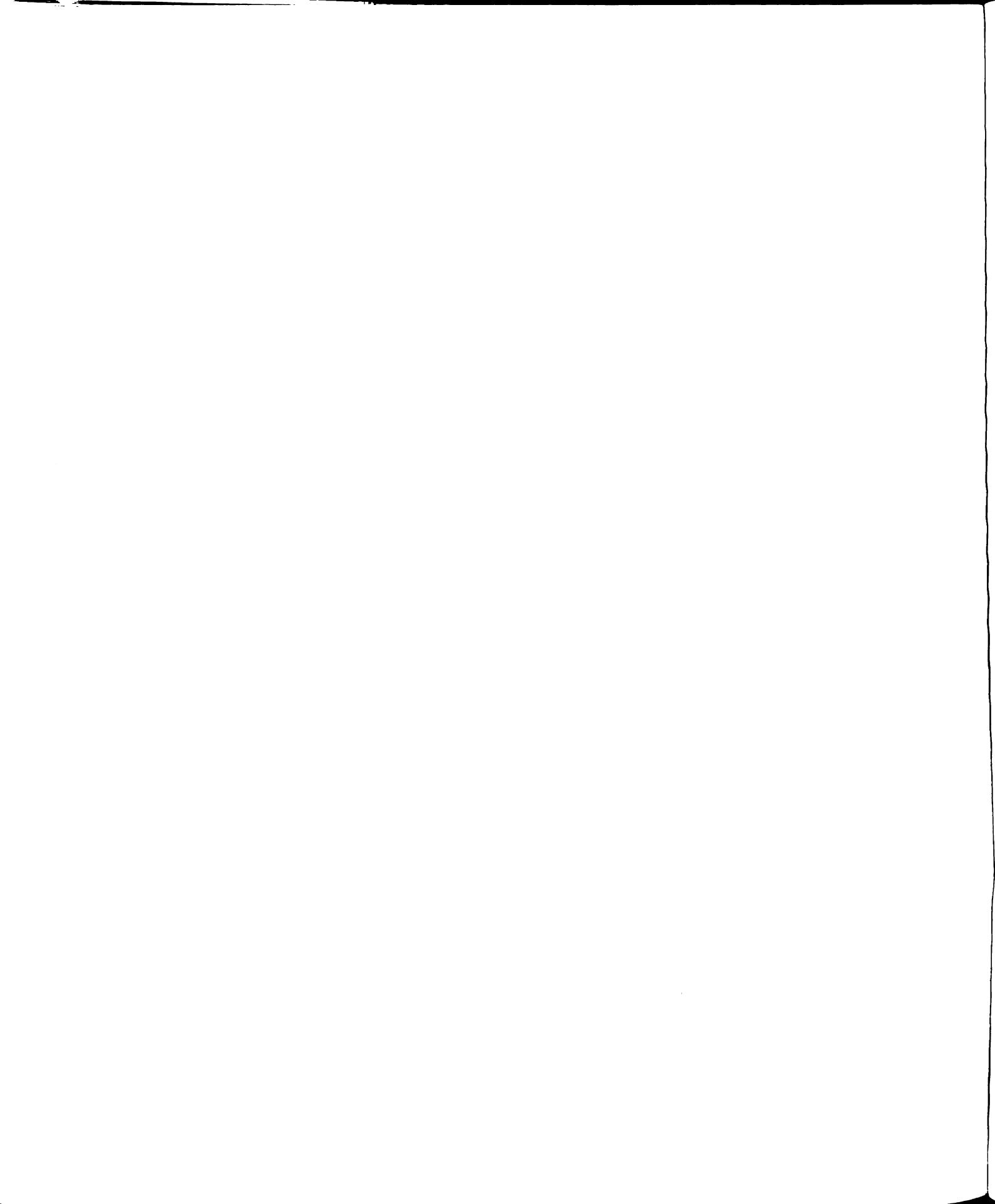
The data for the grade block 1-12 reveal that of 286 students perceived by their teachers as being well adjusted, 48.6 percent were quiet in their communication pattern, 32.9 percent were normally communicative in their communication pattern, and 18.5 percent were very talkative in their communication pattern. Among 225 students perceived by their teachers as being not well adjusted, 26.7 percent were quiet in their communication pattern, 43.1 percent were normally communicative in their communication pattern, and 30.2 percent were very talkative in their communication pattern.

The data for the grade block 9-12 reveal that of 66 students perceived by their teachers as being well adjusted, 51.5 percent were

quiet in their communicative pattern, 37.9 percent were normally communicative in their communication pattern, and 10.6 percent were very talkative in their communication pattern. Among 45 students perceived by their teachers as being not well adjusted, 17.8 percent were quiet in their communication pattern, 60.0 percent were normally communicative in their communication pattern, and 22.2 percent were very talkative in their communication pattern.

The data for the grade block 1-3 reveal that of 89 students perceived by their teachers as being well adjusted, 48.3 percent were quiet in their communication pattern, 30.3 percent were normally communicative in their communication pattern, and 21.3 percent were very talkative in their communication pattern. Among 68 students perceived by their teachers as being not well adjusted, 26.5 percent were quiet in their communication pattern, 35.3 percent were normally communicative in their communication pattern, and 38.2 percent were very talkative in their communication pattern.

In summary, in grade blocks 1-12 and 1-3, approximately twice as many students who were perceived as being well adjusted were described as being quiet in their communication pattern when compared with students who were perceived as being not well adjusted, while in grade block 9-12 the ratio was approximately 3:1. In grade blocks 1-12, 1-3, and 9-12, approximately twice as many students who were perceived as being not well adjusted were described as being very talkative when compared with students who were perceived as being well adjusted. In grade blocks 1-12, 1-3, and 9-12, more students who were perceived as



being not well adjusted were described as normally communicative when compared with students who were perceived as being well adjusted.

The null hypothesis was rejected for the grade blocks 1-12, 1-3, and 9-12. Comparisons involving grade blocks 4-6 and 7-8 were not significant.

Hypothesis 4.9

Null Hypothesis:

There is no relationship between student adjustment and choice of playmates.

Hypothesis 4.9 was tested by comparing the number of students who were perceived by their teachers as being well adjusted or not well adjusted with the number of students who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

The statistical results are presented in Tables C.29 and E.9 and show that the variables (student adjustment and choice of playmates) for the grade blocks 1-12 and 4-6 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 254 students perceived by their teachers as being well adjusted, 5.9 percent generally associate with younger children, 89.8 percent generally associate with children their own age, and 4.3 percent generally associate with older children. Among 188 students perceived by their teachers as being not well adjusted, 20.7 percent generally associate with younger children, 73.9 percent generally associate with children their own age, and 5.3 percent generally associate with older children.

The data for grade block 4-6 reveal that of 71 students perceived by their teachers as being well adjusted, 5.6 percent generally associate with younger children, 88.7 percent generally associate with children their own age, and 5.6 percent generally associate with older children. Among 53 students perceived by their teachers as being not well adjusted, 28.3 percent generally associate with younger children, 67.9 percent generally associate with children their own age, and 3.8 percent associate with older children.

In summary, in grade blocks 1-12 and 4-6, of the students perceived by their teachers as being well adjusted as well as students perceived by their teachers as being not well adjusted, more than 60 percent selected children their own age as playmates. However, of the students perceived by their teachers as being not well adjusted, more than 20 percent selected younger children as playmates.

The null hypothesis was rejected for the grade blocks 1-12 and 4-6. Comparisons involving grade blocks 1-3, 7-8, and 9-12 were not significant.

Summary

A summarization of the relationship between student adjustment in the school environment and the student conduct reveals that:

- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, approximately 70 percent of the students perceived by their teachers as being not well adjusted, when faced with a difficult task, withdrew from the situation, and less than 8 percent faced the task intelligently.
- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, over 70 percent of the students perceived by their teachers as being not well adjusted, when faced with a problem, were easily discouraged, and approximately 14 percent were reasonably persistent.

- among the students who were perceived by their teachers as being not well adjusted, more were over-dependent, more were resistant, and more were less accepting with reference to authority than were students perceived to be well adjusted.
- among students in grade blocks 1-12 and 1-3 who were perceived by their teachers as being not well adjusted, approximately 50 percent generally avoided leadership, while in grade block 9-12 approximately 84 percent generally avoided leadership.
- among the students perceived as being not well adjusted, it appears that more were apathetic, more were excitable, and fewer were emotionally calm than were students perceived as being well adjusted. (However, the presence of apathy among students in grade blocks 7-8 and 9-12 was approximately twice that observed among students in grade blocks 1-3 and 4-6.)
- among students in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 who were perceived as being not well adjusted, more were shy and bashful than were students perceived as being well adjusted. (However, in grade blocks 1-3 and 4-6, among students perceived as being not well adjusted, more were bold and aggressive than were shy and bashful in their relationship with other children.)
- among students perceived as being well adjusted, more were quiet and less talkative in their communication pattern than students perceived as being not well adjusted.
- in grade blocks 1-12 and 4-6 students more than 60 percent of the time selected children their own age as playmates. (However, students perceived as not well adjusted, more than 20 percent of the time selected younger children as playmates.)

Student Acceptance by Peers

Each student was identified by the classroom teacher as being well liked by other students or being not well liked by other students. Eight hypotheses were formulated to test whether significant relationships exist between student acceptance by peers and each of the following eight variables:

1. Behavior when faced with a difficult task;
2. Behavior when faced with a problem;
3. Behavior with reference to authority;
4. Behavior with reference to leadership;
5. Behavior in the classroom;
6. Relationship with other students;
7. Classroom communication pattern; and
8. Choice of playmates.

Hypothesis 5.1

Null Hypothesis:

There is no relationship between students acceptance by peers and student behavior when faced with a difficult task.

Hypothesis 5.1 was tested by comparing the number of students who were perceived by the classroom teacher as being well liked or not well liked by other students with the number of students who when faced with a difficult task were identified as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively.

The statistical results are presented in Tables C.30, D.13, and G.13 and show that the variables (student acceptance by peers and student behavior when faced with a difficult task) for the grade blocks 1-12 and 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 381 students perceived as being well liked by peers, 50.7 percent when faced with a difficult task were perceived as withdrawing from the situation, 28.6 percent were perceived as facing the task intelligently, and

20.7 percent were perceived as acting impulsively. Of 124 students perceived as being not well liked by peers, 71.0 percent when faced with a difficult task were perceived as withdrawing from the situation, 9.7 percent were perceived as facing the task intelligently, and 19.4 percent were perceived as acting impulsively.

The data for the grade block 9-12 reveal that of 75 students perceived as being well liked by peers, 36.0 percent when faced with a difficult task were perceived as withdrawing from the situation, 52.0 percent were perceived as facing the task intelligently, and 12.0 percent were perceived as acting impulsively. Among 34 students perceived as being not well liked by peers, 70.6 percent when faced with a difficult task were perceived as withdrawing from the situation, 17.6 percent were perceived as facing the task intelligently, and 11.8 percent were perceived as acting impulsively.

The data for the grade block 1-3 reveal that of 138 students perceived as being well liked by peers, 8.0 percent when faced with a difficult task were perceived as withdrawing from the situation, 87.0 percent were perceived as facing the task intelligently, and 5.1 percent were perceived as acting impulsively. Among 41 students perceived as being not well liked by peers, 29.3 percent when faced with a difficult task were perceived as withdrawing from the situation, 65.9 percent were perceived as facing the problem intelligently, and 4.9 percent were perceived as acting impulsively.

In summary, in grade block 1-12, of the students perceived as being not well liked by peers, approximately 25.0 percent more withdrew

from the situation when compared with students perceived as being well liked by peers.

In grade block 1-12, three times as many students perceived as being well liked faced the task intelligently when compared with students perceived as being not well liked by peers.

In grade block 1-3, more than three times as many students perceived as being not well liked by peers withdrew from the situation when compared with students perceived as being well liked by peers. Of the students perceived as being not well liked by peers, 65 percent faced the task intelligently compared with 87 percent of the students perceived as being well liked by peers.

In grade block 9-12, the number of students perceived as being not well liked by peers who withdrew from the situation was twice that of the number of students perceived as being well liked by peers.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 9-12. Comparisons involving grade blocks 4-6 and 7-8 were not significant.

Hypothesis 5.2

Null Hypothesis:

There is no relationship between student acceptance by peers and student behavior when faced with a problem.

Hypothesis 5.2 was tested by comparing the number of students who were perceived by the classroom teachers as being well liked or not well liked by other students with the number of students who when faced with a problem were identified as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in Tables C.31, E.10, and G.14 and show that the variables (student acceptance by peers and student behavior when faced with a problem) for the grade block 1-12 correlate at the .001 level, and for the grade blocks 4-6 and 9-12 correlate at the .01 level.

The data for grade block 1-12 reveal that of 416 students perceived as being well liked by peers, 55.5 percent when faced with a problem were perceived as being easily discouraged, 39.9 percent were perceived as being reasonably persistent, and 4.6 percent were perceived as being blindly aggressive. Of 140 students perceived as being not well liked by peers, 77.9 percent when faced with a problem were perceived as being easily discouraged, 15.7 percent were perceived as being reasonably persistent, and 6.4 percent were perceived as being blindly aggressive.

The data for the grade block 4-6 reveal that of 107 students perceived as being well liked by peers, 50.5 percent when faced with a problem were perceived as being easily discouraged, 44.9 percent were perceived as being reasonably persistent, and 4.7 percent were perceived as being blindly aggressive. Of 29 students perceived as being not well liked by peers, 86.2 percent when faced with a problem were perceived as being easily discouraged, 10.3 percent were perceived as being reasonably persistent, and 3.4 percent were perceived as being blindly aggressive.

The data for the grade block 9-12 reveal that of 86 students perceived as being well liked by peers, 51.2 percent when faced with

a problem were perceived as being easily discouraged, 48.8 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Of 35 students perceived as being not well liked by peers, 71.4 percent when faced with a problem were perceived as being easily discouraged, 22.9 percent were perceived as being reasonably persistent, and 5.7 percent were perceived as being blindly aggressive.

In summary, in grade blocks 1-12, 4-6, and 9-12 more students perceived as being not well liked by peers were easily discouraged when faced with a problem, than students perceived as being well liked by peers.

In grade block 1-12, among students perceived as being well liked by peers, 39.9 percent were reasonably persistent compared with students perceived as being not well liked by peers of whom only 15.0 percent were reasonably persistent.

In grade block 4-6, this pattern continues, with four times as many students perceived as being well liked by peers being reasonably persistent than were students perceived as being not well liked by peers.

In grade block 9-12, this pattern continues, with twice as many students perceived as being well liked by peers being reasonably persistent than were students perceived as being not well liked by peers.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 4-6, and 9-12. Comparisons involving grade blocks 1-3 and 7-8 were not significant.

Hypothesis 5.3

Null Hypothesis:

There is no relationship between student acceptance by peers and student behavior with reference to authority.

Hypothesis 5.3 was tested by comparing the number of students who were perceived by the classroom teacher as being well liked or not well liked by other students with the number of students who were identified as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority.

The statistical results are presented in Tables C.32, D.14, E.11, and G.15 and show that the variables (student acceptance by peers and student behavior with reference to authority) for the grade blocks 1-12 and 1-3 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 428 students perceived by the teacher as being well liked by peers, 12.4 percent were over-dependent with reference to authority, 78.7 percent were accepting with reference to authority, and 8.9 percent were resistant with reference to authority. Among 129 students perceived as being not well liked by peers, 12.4 percent were over-dependent with reference to authority, 58.9 percent were accepting with reference to authority, and 28.7 percent were resistant with reference to authority.

The data for the grade block 1-3 reveal that of 144 students perceived by the teacher as being well liked by peers, 15.3 percent were over-dependent with reference to authority, 78.5 percent were

accepting with reference to authority, and 6.3 percent were resistant with reference to authority. Among 37 students perceived as being not well liked by peers, 8.1 percent were over-dependent with reference to authority, 64.9 percent were accepting with reference to authority, and 27.0 percent were resistant with reference to authority.

The data for the grade block 4-6 reveal that of 108 students perceived by the teacher as being well liked by peers, 13.0 percent were over-dependent with reference to authority, 78.7 percent were accepting with reference to authority, and 8.3 percent were resistant with reference to authority. Among 28 students perceived as being not well liked by peers, 10.7 percent were over-dependent with reference to authority, 53.6 percent were accepting with reference to authority, and 35.7 percent were resistant with reference to authority.

The data for the grade block 9-12 reveal that of 88 students perceived by the teacher as being well liked by peers, 6.8 percent were over-dependent with reference to authority, 83.0 percent were accepting with reference to authority, and 10.2 percent were resistant with reference to authority. Among 32 students perceived as being not well liked by peers, 21.9 percent were over-dependent with reference to authority, 53.1 percent were accepting with reference to authority, and 25.0 percent were resistant with reference to authority.

In summary, in grade blocks 1-12, 1-3, 4-6, and 9-12, more than 14 percent of the students perceived as being well liked by peers were described as being accepting of authority than students perceived as being not well liked by peers.

In grade blocks 1-3 and 4-6, among students perceived as being not well liked by peers, four times as many were resistant with reference to authority than students perceived as being well liked by peers.

In grade block 9-12, among students perceived as being not well liked by peers, twice as many were resistant with reference to authority than students perceived as being well liked by peers.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, and 9-12. Comparisons involving grade block 7-8 were not significant.

Hypothesis 5.4

Null Hypothesis:

There is no relationship between student acceptance by peers and student behavior with reference to leadership.

Hypothesis 5.4 was tested by comparing the number of students who were perceived by the classroom teachers as being well liked or not well liked by other students with the number of students in their association with other students who were identified as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead.

The statistical results are presented in Tables C.33, D.15, and G.16 and show that the variables (student acceptance by peers and student behavior with reference to leadership) for grade blocks 1-12 and 1-3 correlate at the .001 level, and for grade block 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 432 students perceived by the teachers as being well liked by peers, 44.7 percent were generally avoiding leadership, 44.4 percent were at times either leading or following, and 10.9 percent were usually seeking to lead. Among 141 students perceived by the teacher as being not well liked by peers, 57.4 percent were generally avoiding leadership, 19.1 percent were at times either leading or following, and 23.4 percent were usually seeking to lead.

The data for the grade block 1-3 reveal that of 147 students perceived by the teacher as being well liked by peers, 44.9 percent were generally avoiding leadership, 45.6 percent were at times either leading or following, and 9.5 percent were usually seeking to lead. Among 44 students perceived by the teacher as being not well liked by peers, 38.6 were generally avoiding leadership, 20.5 percent were at times either leading or following, and 40.9 percent were usually seeking to lead.

The data for the grade block 9-12 reveal that of 81 students perceived by the teachers as being well liked by peers, 54.3 percent were generally avoiding leadership, 39.5 percent were at times either leading or following, and 6.2 percent were usually seeking to lead. Among 32 students perceived by the teachers as being not well liked by peers, 78.1 percent were generally avoiding leadership, 9.4 percent were at times either leading or following, and 12.5 percent were usually seeking to lead.

In summary, in grade block 1-12 of the students perceived as being well liked by peers, 44.7 percent generally avoided leadership, compared with 54.7 percent of the students perceived as being not well liked by peers.

In grade block 9-12, 54.3 percent of the students perceived as being well liked by peers generally avoided leadership compared with 78.1 percent of the students perceived as being not well liked by peers.

In grade block 1-3, 44.9 percent of the students perceived as being well liked by peers generally avoided leadership compared with 38.6 percent of the students perceived as being not well liked by peers.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 9-12. Comparisons involving grade blocks 4-6 and 7-8 were not significant.

Hypothesis 5.5

Null Hypothesis:

There is no relationship between student acceptance by peers and student behavior in the classroom.

Hypothesis 5.5 was tested by comparing the number of students who were perceived by the classroom teachers as being well liked or not well liked by other students with the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable.

The statistical results are presented in Tables C.34, D.16, E.12, F.7, and G.17 and show that the variables (acceptance by peers and student behavior in the classroom) for grade blocks 1-12, 4-6, and 9-12 correlate at the .001 level, and for grade blocks 1-3 and 7-8 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 415 students perceived as being well liked by peers, 16.4 percent were apathetic in the classroom, 56.6 percent were emotionally calm in the classroom, and 27.0 percent were excitable in the classroom. Among 141 students perceived as being not well liked by peers, 35.5 percent were apathetic in the classroom, 24.8 percent were emotionally calm in the classroom, and 39.7 percent were excitable in the classroom.

The data for the grade block 4-6 reveal that of 106 students perceived as being well liked by peers, 14.2 percent were apathetic in the classroom, 54.7 percent were emotionally calm in the classroom, and 31.1 percent were excitable in the classroom. Among 29 students perceived as being not well liked by peers, 20.7 percent were apathetic in the classroom, 10.3 percent were emotionally calm in the classroom, and 69.0 percent were excitable in the classroom.

The data for the grade block 9-12 reveal that of 86 students perceived as being well liked by peers, 15.1 percent were apathetic in the classroom, 69.8 percent were emotionally calm in the classroom, and 15.1 percent were excitable in the classroom. Among 35 students perceived as being not well liked by peers, 45.7 percent were apathetic in the classroom, 34.3 percent were emotionally calm in the classroom, and 20.0 percent were excitable in the classroom.

The data for the grade block 1-3 reveal that of 139 students perceived as being well liked by peers, 18.0 percent were apathetic in the classroom, 50.4 percent were emotionally calm in the classroom, and 31.7 percent were excitable in the classroom. Among 46 students perceived as being not well liked by peers, 30.4 percent were apathetic in the classroom, 26.1 percent were emotionally calm in the classroom, and 43.5 percent were excitable in the classroom.

The data for the grade block 7-8 reveal that of 84 students perceived as being well liked by peers, 17.9 percent were apathetic in the classroom, 56.0 percent were emotionally calm in the classroom, and 26.2 percent were excitable in the classroom. Among 31 students perceived as being not well liked by peers, 45.2 percent were apathetic in the classroom, 25.8 percent were emotionally calm in the classroom, and 29.0 percent were excitable in the classroom.

In summary, in grade blocks 1-3 and 4-6, of the students perceived as being not well liked by peers, there was an increase from 43.0 percent to 69.0 percent in the number of students who were excitable in their classroom behavior.

In grade blocks 7-8 and 9-12, of the students perceived as being not well liked by peers there was a decrease from 29.0 percent to 20.0 percent in the number of students who were excitable in their classroom behavior.

In grade block 4-6, of the students perceived as being not well liked by their peers, 10.0 percent were emotionally calm. However, the percentage gradually increased to 34.0 percent being emotionally calm in grade block 9-12.

The null hypothesis was, therefore, rejected for the grade blocks, 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 5.6

Null Hypothesis:

There is no relationship between student acceptance by peers and student relationship with other students.

Hypothesis 5.6 was tested by comparing the number of students who were perceived by the classroom teachers as being well liked or not being well liked by other students with the number of students who were identified in their relationship with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.35, D.17, E.13, F.8, and G.18 and show that the variables (acceptance by peers and student relationship with other students) for grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 419 students perceived as being well liked by peers, 19.6 percent were shy and bashful in their relationship with other students, 66.6 percent were responsive in their relationship with other students, and 13.8 percent were bold and aggressive in their relationship with other students. Among 118 students perceived as being not well liked by peers, 38.1 percent were shy and bashful in their relationship with other students, 26.3 percent were responsive in their relationship with other students, and 35.6 percent were bold and aggressive in their relationship with other students.

The data for the grade block 1-3 reveal that of 138 students perceived as being well liked by peers, 20.3 percent were shy and bashful in their relationship with other students, 64.5 percent were responsive in their relationship with other students, and 15.2 percent were bold and aggressive in their relationship with other students. Among 35 students perceived as being not well liked by peers, 20.0 percent were shy and bashful in their relationship with other students, 25.7 percent were responsive in their relationship with other students, and 54.3 percent were bold and aggressive in their relationship with other students.

The data for the grade block 4-6 reveal that of 111 students perceived as being well liked by peers, 16.2 percent were shy and bashful in their relationship with other students, 68.5 percent were responsive in their relationship with other students, and 15.3 percent were bold and aggressive in their relationship with other students. Among 26 students perceived as being not well liked by peers, 30.8 percent were shy and bashful in their relationship with other students, 23.1 percent were responsive in their relationship with other students, and 46.2 percent were bold and aggressive in their relationship with other students.

The data for the grade block 7-8 reveal that of 85 students perceived as being well liked by peers, 18.8 percent were shy and bashful in their relationship with other students, 62.4 percent were responsive in their relationship with other students, and 18.8 percent were bold and aggressive in their relationship with other students.

Among 29 students perceived as being not well liked by peers, 51.7 percent were shy and bashful in their relationship with other students, 24.1 percent were responsive in their relationship with other students, and 24.1 percent were bold and aggressive in their relationship with other students.

The data for the grade block 9-12 reveal that of 85 students perceived as being well liked by peers, 23.5 percent were shy and bashful in their relationship with other students, 71.8 percent were responsive in their relationship with other students, and 4.7 percent were bold and aggressive in their relationship with other students. Among 28 students perceived as being not well liked by peers, 53.6 percent were shy and bashful in their relationship with other students, 32.1 percent were responsive in their relationship with other students, and 14.3 percent were bold and aggressive in their relationship with other students.

In summary, in grade blocks 1-3, 4-6, 7-8, and 9-12, of the students perceived as being not well liked by their peers, there was a continuing decrease (54.0 percent to 14.0 percent) in the number of students who were bold and aggressive in their relationship with other students. However, these students perceived as being not well liked were also not responsive in their relationship with other students.

In grade blocks 7-8 and 9-12, over 50.0 percent of these students perceived as not well liked by peers were shy and bashful in the classroom.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 5.7

Null Hypothesis:

There is no relationship between student acceptance by peers and classroom communication pattern.

Hypothesis 5.7 was tested by comparing the number of students who were perceived by the classroom teachers as being well liked or not well liked by other students with the number of students who were identified as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Tables C.36, F.9, and G.19 and show that the variables (student acceptance by peers and classroom communication pattern) for the grade block 1-12 correlate at the .001 level, and for the grade blocks 7-8 and 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 433 students perceived as being well liked by peers, 42.5 percent were quiet in their communication pattern, 35.1 percent were normally communicative in their communication pattern, and 22.4 percent were very talkative in their communication pattern. Among 133 students perceived as being not well liked by peers, 20.3 percent were quiet in their communication pattern, 91.1 percent were normally communicative in their communication pattern, and 28.6 percent were very talkative in their communication pattern.

The data for the grade block 7-8 reveal that of 87 students perceived as being well liked by peers, 43.7 percent were quiet in

their communication pattern, 37.9 percent were normally communicative in their communication pattern, and 18.4 percent were very talkative in their communication pattern. Among 29 students perceived as being not well liked by peers, 13.8 percent were quiet in their communication pattern, 69.0 percent were normally communicative in their communication pattern, and 17.2 percent were very talkative in their communication pattern.

The data for the grade block 9-12 reveal that of 90 students perceived as being well liked by peers, 44.4 percent were quiet in their communication pattern, 43.3 percent were normally communicative in their communication pattern, and 12.2 percent were very talkative in their communication pattern. Among 33 students perceived as being not well liked by peers, 12.1 percent were quiet in their communication pattern, 66.7 percent were normally communicative in their communication pattern, and 21.2 percent were very talkative in their communication pattern.

In summary, in grade blocks 1-12, 7-8, and 9-12, of the students perceived as being not well liked by peers, 67.0 to 91.0 percent were perceived as being normally communicative in their communication pattern; whereas, of the students perceived as being well liked by peers, 35.0 to 43.0 percent were perceived as being normally communicative in their communication pattern.

In grade blocks 7-8 and 9-12, of the students perceived as being well liked by peers, approximately 43.0 percent were quiet in their communication pattern; whereas, of the students perceived as

being not well liked by peers, 12.0 to 13.0 percent were quiet in their communication pattern.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 7-8, and 9-12.

Hypothesis 5.8

Null Hypothesis:

There is no relationship between student acceptance by peers and choice of playmates.

Hypothesis 5.8 was tested by comparing the number of students who were perceived by the classroom teachers as being well liked or being not well liked by other students with the number of students who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

The statistical results are presented in Tables C.37, D.18, and E.14 and show that the variables (student acceptance by peers and choice of playmates) for the grade blocks 1-12 and 1-3 correlate at the .001 level and for the grade block 4-6 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 382 students perceived as being well liked by peers, 8.9 percent generally associate with younger children, 86.9 percent generally associate with children their own age, and 4.2 percent generally associate with older children. Among 106 students perceived as being not well liked by peers, 25.5 percent generally associate with younger children, 68.9 percent generally associate with children their own age, and 5.7 percent generally associate with older children.

The data for the grade block 1-3 reveal that of 138 students perceived as being well liked by peers, 8.0 percent generally associate with younger children, 87.0 percent generally associate with children their own age, and 5.1 percent generally associate with older children. Among 41 students perceived as being not well liked by peers, 29.3 percent generally associate with younger children, 65.9 percent generally associate with children their own age, and 4.9 percent generally associate with older children.

The data for the grade block 4-6 reveal that of 106 students perceived as being well liked by peers, 10.4 percent generally associate with younger children, 84.9 percent generally associate with children their own age, and 4.7 percent generally associate with older children. Among 27 students perceived as being not well liked by peers, 37.0 percent generally associate with younger children, 59.3 percent generally associate with children their own age, and 3.7 percent generally associate with older children.

In grade blocks 1-12, 1-3, and 4-6, of the students perceived as being well liked by peers, 84.0 to 87.0 percent generally associate with children their own age; whereas, of the students perceived as being not well liked by peers, 59.0 to 68.0 percent generally associate with children their own age.

In grade blocks 1-12, 1-3, and 4-6, of the students perceived as being not well liked by their peers, three times as many students generally associate with younger children compared with students perceived as being well liked by their peers. Approximately 5.0

percent of both groups (students well liked by peers and students not well liked by peers) generally associate with older children.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 4-6. Comparisons involving grade blocks 7-8 and 9-12 were not significant.

Summary

A summarization of the relationship between student acceptance by peers and student conduct reveals that:

- in the grade block 9-12, 24 percent more of the students perceived as being well liked by peers when faced with a difficult task, withdrew from the situation than those students in grade block 1-3 perceived as being well liked by peers.
- in the grade block 1-3, among the students perceived as being not well liked by peers, approximately four times as many face the task intelligently as did those in grade block 9-12 perceived as being not well liked by peers.
- in grade block 4-6, of the students perceived as being not well liked by peers, more were easily discouraged and more of the students were less persistent when faced with a problem compared with students in the grade blocks 1-12 and 9-12 who were perceived as being not well liked by peers.
- in grade blocks 1-3 and 4-6, among students perceived as being not well liked by peers, four times as many were resistant with reference to authority than students perceived as being well liked by peers.
- in grade block 9-12, among students perceived as being not well liked by peers, twice as many were resistant with reference to authority than students perceived as being well liked by peers.
- in grade blocks 1-12, 1-3, and 9-12, approximately 44.0 percent of the students perceived as being well liked generally avoided leadership.
- in grade blocks 1-12, 1-3, and 9-12, of the students perceived as being not well liked by peers, more usually

seek to lead compared with students perceived as being well liked by peers. (In grade block 1-3 the ratio was 4:1.)

- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, of the students perceived as being not well liked by peers, more were excitable in the classroom compared with students perceived as being well liked.
- in grade blocks 1-3 and 4-6, of the students perceived as being not well liked, the percentage of those who were excitable in the classroom was greater than the percentage in grade blocks 7-8 and 9-12.
- in grade blocks 1-3 and 4-6, of the students perceived as being not well liked, the number of students who were bold and aggressive exceeded by 30.0 percent the number of students in grade blocks 7-8 and 9-12, respectively, who were bold and aggressive.
- if a student is perceived to be well liked by his peers, he is perceived to be more responsive to his peers.
- more students perceived as being not well liked by peers were normally communicative compared with students perceived as being well liked.
- in grade blocks 7-8 and 9-12, less students perceived as being not well liked by peers were quiet than those students perceived as being well liked.
- in grade blocks 1-12, 1-3, and 4-6, over 59.0 percent of the students generally associated with children their own age.
- among students perceived as being not well liked, three times as many associated with younger children compared with students perceived as being well liked.

Student Acceptance by Adults

Each student was identified by the classroom teachers as being well liked by adults or not well liked by adults. Eleven null hypotheses were formulated to test whether significant relationships exist between student acceptance by adults and each of the following eleven variables:

1. Verbal I.Q.;
2. Performance I.Q.;
3. Full Scale I.Q.;
4. Behavior when faced with a difficult task;
5. Behavior when faced with a problem;
6. Behavior with reference to authority;
7. Behavior with reference to leadership;
8. Behavior in the classroom;
9. Relationship with other students;
10. Classroom communication pattern; and
11. Choice of playmates.

Hypothesis 6.1

Null Hypothesis:

There is no relationship between student acceptance by adults and Verbal I.Q.

Hypothesis 6.1 was tested by comparing the number of students who were perceived by their teachers as being well liked or not well liked by adults with the number of students earning a score below 100 and those earning a score of 100 or above on the Verbal I.Q.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 6.2

Null Hypothesis:

There is no relationship between student acceptance by adults and Performance I.Q.

Hypothesis 6.2 was tested by comparing the number of students who were perceived by their teachers as being well liked or not well liked by adults with the number of students earning a score below 100 and those earning a score of 100 or above on the Performance I.Q.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 6.3

Null Hypothesis:

There is no relationship between student acceptance by adults and Full Scale I.Q.

Hypothesis 6.3 was tested by comparing the number of students who were perceived by their teachers as being well liked or not well liked by adults with the number of students earning a score below 100 and those earning a score of 100 or above on the Full Scale I.Q.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 6.4

Null Hypothesis:

There is no relationship between student acceptance by adults and student behavior when faced with a difficult task.

Hypothesis 6.4 was tested by comparing the number of students who were perceived by their teachers as being well liked or not well

liked by adults with the number of students who when faced with a difficult task were perceived as: (1) withdrawing from the situation, (2) facing the problem intelligently, or (3) acting impulsively.

The statistical results are presented in Table C.38 and show that the variables (acceptance by adults and student behavior when faced with a difficult task) for the grade block 1-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 365 students perceived as being well liked by adults, 50.7 percent when faced with a difficult task were perceived as withdrawing from the situation, 29.3 percent were perceived as facing the problem intelligently, and 20.0 percent were perceived as acting impulsively. Of 69 students perceived as being not well liked by adults, 72.5 percent when faced with a difficult task were perceived as withdrawing from the situation, 7.2 percent were perceived as facing the problem intelligently, and 20.3 percent were perceived as acting impulsively.

In summary, in grade block 1-12, among students perceived as being well liked by adults as well as among students perceived as being not well liked by adults, 50.0 percent or more from each group when faced with a difficult task withdrew from the situation. Yet, of the students perceived as being well liked, four times as many faced the task intelligently when compared with the students perceived as being not well liked by adults.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Hypothesis 6.5

Null Hypothesis:

There is no relationship between student acceptance by adults and student behavior when faced with a problem.

Hypothesis 6.5 was tested by comparing the number of students who were perceived by their teachers as being well liked or not being well liked by adults with the number of students who when faced with a problem were perceived as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in Tables C.39, E.15, and G.20 and show that the variables (acceptance by adults and student behavior when faced with a problem) for the grade block 1-12 correlate at the .001 level and for the grade blocks 4-6 and 9-12 at the .01 level.

The data for the grade block 1-12 reveal that of 402 students perceived as being well liked by adults, 54.7 percent when faced with a problem were perceived as being easily discouraged, 40.8 percent were perceived as being reasonably persistent, and 4.5 percent were perceived as being blindly aggressive. Of 80 students perceived as being not well liked by adults, 80.0 percent when faced with a problem were perceived as being easily discouraged, 10.0 percent were perceived as being reasonably persistent, and 10.0 percent were perceived as being blindly aggressive.

The data for the grade block 4-6 reveal that of 102 students perceived as being well liked by adults, 50.0 percent when faced with

a problem were perceived as being easily discouraged, 46.1 percent were perceived as being reasonably persistent, and 3.9 percent were perceived as being blindly aggressive. Of the 20 students perceived as being not well liked by adults, 85.0 percent were perceived as being easily discouraged, 5.0 percent were perceived as being reasonably persistent, and 10.0 percent were perceived as being blindly aggressive.

The data for the grade block 9-12 reveal that of the 85 students perceived as being well liked by adults, 50.6 percent when faced with a problem were perceived as being easily discouraged, 49.4 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Of the 19 students perceived as being not well liked by adults, 78.9 percent when faced with a problem were perceived as being easily discouraged, 15.8 percent were perceived as being reasonably persistent, and 5.3 percent were perceived as being blindly aggressive.

In summary, in grade block 1-12, among students perceived as being well liked by adults and among students perceived as being not well liked by adults, 50 percent or more from each group when faced with a problem were easily discouraged. Yet of the students perceived as being well liked by adults, four times as many were reasonably persistent when compared with the students perceived as being not well liked by adults.

In grade block 4-6, of the students perceived as being well liked by adults, nine times as many were reasonably persistent when compared with the students perceived as being not well liked by adults.

In grade block 9-12, of the students perceived as being well liked by adults, approximately three times as many were reasonably persistent when compared with the students perceived as being not well liked by adults.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 4-6, and 9-12. Comparisons involving grade blocks 1-3 and 7-8 were not significant.

Hypothesis 6.6

Null Hypothesis:

There is no relationship between student acceptance by adults and student behavior with reference to authority.

Hypothesis 6.6 was tested by comparing the number of students who were perceived by their teachers as being well liked or not well liked by adults with the number of students who were identified as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority.

The statistical results are presented in Tables C.40, D.19, F.10, and G.21 and show that the variables (student acceptance by adults and student behavior with reference to authority) for the grade blocks 1-12, 1-3, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of the 407 students perceived by the teacher as being well liked by adults, 12.8 percent were over-dependent with reference to authority,

80.1 percent were accepting with reference to authority, and 7.1 percent were resistant with reference to authority. Of the 76 students perceived as being not well liked by adults, 10.5 percent were over-dependent with reference to authority, 51.3 percent were accepting with reference to authority, and 38.2 percent were resistant with reference to authority.

The data for the grade block 1-3 reveal that of the 136 students perceived as being well liked by adults, 14.0 percent were over-dependent with reference to authority, 81.6 percent were accepting with reference to authority, and 4.4 percent were resistant with reference to authority. Of the 20 students perceived as being not well liked by adults, 5.0 percent were over-dependent with reference to authority, 55.0 percent were accepting with reference to authority, and 40.0 percent were resistant with reference to authority.

The data for the grade block 7-8 reveal that of the 85 students perceived as being well liked by adults, 12.9 percent were over-dependent with reference to authority, 77.6 percent were accepting with reference to authority, and 9.4 percent were resistant with reference to authority. Among the 17 students perceived as being not well liked by adults, 5.9 percent were over-dependent with reference to authority, 47.1 percent were accepting with reference to authority, and 47.1 percent were resistant with reference to authority.

The data for the grade block 9-12 reveal that of the 81 students perceived as being well liked by adults, 8.6 percent were over-dependent with reference to authority, 84.0 percent were accepting

with reference to authority, and 7.4 percent were resistant with reference to authority. Of the 19 students perceived as being not well liked by adults, 26.3 percent were over-dependent with reference to authority, 36.8 percent were accepting with reference to authority, and 36.8 percent were resistant with reference to authority.

In summary, in grade blocks 1-12, 1-3, 7-8, and 9-12, approximately 30 percent more of the students perceived as being not well liked by adults were resistant to authority when compared with students perceived as being well liked by adults.

In grade blocks 1-12, 1-3, and 7-8, 30 percent more students perceived as being well liked by adults were accepting with reference to authority when compared with students perceived as being not well liked by adults.

In grade block 9-12, the percentage increases to approximately 50 percent.

In grade blocks 7-8 and 9-12, of the students perceived as being not well liked, the percentage of students who were over-dependent with reference to authority increased from 5.9 to 26.3.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 7-8, and 9-12. Comparisons involving grade block 4-6 were not significant.

Hypothesis 6.7

Null Hypothesis:

There is no relationship between student acceptance by adults and student behavior with reference to leadership.

Hypothesis 6.7 was tested by comparing the number of students who were perceived by their teachers as being well liked or not well liked by adults with the number of students in their relationship with other students who were perceived as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Hypothesis 6.8

Null Hypothesis:

There is no relationship between student acceptance by adults and student behavior in the classroom.

Hypothesis 6.8 was tested by comparing the number of students who were perceived by their teachers as being well liked or not well liked by adults with the number of students who were perceived in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable.

The statistical results are presented in Tables C.41, E.16, F.11, and G.22 and show that the variables (student acceptance by adults and student behavior in the classroom) for grade blocks 1-12, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 393 students who were perceived by their teachers as being well liked by adults, 16.5 percent were perceived as being apathetic in the classroom, 56.2 percent were perceived as being emotionally calm in the classroom, and 27.2 percent were perceived as being excitable in the classroom. Among 81 students perceived as being not well liked by adults, 38.3 percent were perceived as being apathetic in the classroom, 17.3 percent were perceived as being emotionally calm in the classroom, and 44.4 percent were perceived as being excitable in the classroom.

The data for the grade block 4-6 reveal that of 99 students who were perceived as being well liked by adults, 13.1 percent were perceived as being apathetic in the classroom, 56.6 percent were perceived as being emotionally calm in the classroom, and 30.3 percent were perceived as being excitable in the classroom. Among 23 students who were perceived as being not well liked by adults, 21.7 percent were perceived as being apathetic in the classroom, 13.0 percent were perceived as being emotionally calm in the classroom, and 65.2 percent were perceived as being excitable in the classroom.

The data for the grade block 7-8 reveal that of 79 students who were perceived as being well liked by adults, 16.5 percent were perceived as being apathetic in the classroom, 55.7 percent were perceived as being emotionally calm in the classroom, and 27.8 percent were perceived as being excitable in the classroom. Of 16 students who were perceived as being not well liked by adults, 68.8 percent were perceived as being apathetic in the classroom, 12.5 percent were

perceived as being emotionally calm in the classroom, and 18.8 percent were perceived as being excitable in the classroom.

The data for the grade block 9-12 reveal that of 82 students who were perceived as being well liked by adults, 14.6 percent were perceived as being apathetic in the classroom, 70.7 percent were perceived as being emotionally calm in the classroom, and 14.6 percent were perceived as being excitable in the classroom. Among 19 students who were perceived as being not well liked by adults, 47.4 percent were perceived as being apathetic in the classroom, 15.8 percent were perceived as being emotionally calm in the classroom, and 36.8 percent were perceived as being excitable in the classroom.

In summary, in grade blocks 1-12, 4-6, and 9-12, of the students perceived as being well liked by adults, more were emotionally calm in the classroom, less were excitable in the classroom, and less were apathetic in the classroom than students perceived as being not well liked by adults.

In grade block 7-8, more students perceived as being not well liked by adults were described as apathetic in the classroom compared with students perceived as being not well liked by adults in grade blocks 1-12, 4-6, and 9-12.

The null hypothesis was, therefore, rejected for grade blocks 1-12, 4-6, 7-8, and 9-12. Comparisons involving grade block 1-3 were not significant.

Hypothesis 6.9

Null Hypothesis:

There is no relationship between student acceptance by adults and student relationship with other students.

Hypothesis 6.9 was tested by comparing the number of students who were perceived by their teachers as being well liked or being not well liked by adults with the number of students who were perceived in their associations with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.42, D.20, and E.17 and show that the variables (student acceptance by adults and student relationship with other students) for grade blocks 1-12 and 1-3 correlate at the .001 level and for grade block 4-6 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 396 students perceived by their teachers as being well liked by adults, 21.2 percent were shy and bashful in their relationship with other students, 64.9 percent were responsive in their relationship with other students, and 13.9 percent were bold and aggressive in their relationship with other students. Of 68 students perceived as being not well liked by adults, 26.5 percent were shy and bashful in their relationship with other students, 30.9 percent were responsive in their relationship with other students, and 42.6 percent were bold and aggressive in their relationship with other students.

The data for the grade block 1-3 reveal that of 130 students perceived as being well liked by adults, 19.2 percent were shy and bashful in their relationship with other students, 64.6 percent were responsive in their relationship with other students, and 16.2 percent were bold and aggressive in their relationship with other students. Among 15 students who were perceived as being not well liked by adults, 6.7 percent were shy and bashful in their relationship with other students, 26.7 percent were responsive in their relationship with other students, and 66.7 percent were bold and aggressive in their relationship with other students.

The data for the grade block 4-6 reveal that of 104 students perceived as being well liked by adults, 17.3 percent were shy and bashful in their relationship with other students, 66.3 percent were responsive in their relationship with other students, and 16.3 percent were bold and aggressive in their relationship with other students. Among 21 students perceived as being not well liked by adults, 23.8 percent were shy and bashful in their relationship with other students, 33.3 percent were responsive in their relationship with other students, and 42.9 percent were bold and aggressive in their relationship with other students.

In summary, in each of the grade blocks 1-12, 1-3, and 4-6, the data reveal that more students perceived as being well liked by adults than students perceived as being not well liked by adults were described as responsive in their relationship with other students by a margin of 33 percent. Of the students perceived as being not

well liked by adults more were bold and aggressive in their relationships with other students compared with students perceived as being well liked by adults.

The null hypothesis was, therefore, rejected for grade blocks 1-12, 1-3, and 4-6. Comparisons involving grade blocks 7-8 and 9-12 were not significant.

Hypothesis 6.10

Null Hypothesis:

There is no relationship between student acceptance by adults and classroom communication pattern.

Hypothesis 6.10 was tested by comparing the number of students who were perceived by their teachers as being well liked or being not well liked by adults with the number of students who were identified as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Tables C.43 and G.23 and show that the variables (student acceptance by adults and classroom communication pattern) for the grade block 1-12 correlate at the .001 level and for the grade block 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 410 students perceived by their teachers as being well liked by adults, 41.0 percent were perceived as being quiet in their communication pattern, 38.3 percent as being normally communicative in their communication pattern, and 20.7 percent as being very talkative in their communication pattern. Among 78 students who were perceived as being not

well liked by adults, 20.5 percent were perceived as being quiet in their communication pattern, 41.0 percent as being normally communicative in their communication pattern, and 38.5 percent as being talkative in their communication pattern.

The data for the grade block 9-12 reveal that of the 84 students perceived as being well liked by adults, 41.7 percent were perceived as being quiet in their communication pattern, 50.0 percent as being normally communicative in their communication pattern, and 8.3 percent as being very talkative in their communication pattern. Of 18 students perceived as being not well liked by adults, 11.1 percent were perceived as being quiet in their communication pattern, 55.6 percent as being normally communicative in their communication pattern, and 33.3 percent as being very talkative in their communication pattern.

In summary, in grade block 1-12 of the students perceived as being well liked by adults, twice as many were quiet in their communication pattern when compared with students perceived as being not well liked by adults.

In grade block 9-12 of the students perceived as being well liked by adults, approximately four times as many students were quiet in their communication pattern when compared with students perceived as being not well liked by adults.

In grade block 9-12, of the students perceived as being not well liked, 25 percent more were very talkative in their communication pattern when compared with students perceived as being well liked by adults.

The null hypothesis was, therefore, rejected for grade blocks 1-12 and 9-12. Comparisons involving grade blocks 1-3, 4-6, and 7-8 were not significant.

Hypothesis 6.11

Null Hypothesis:

There is no relationship between student acceptance by adults and choice of playmates.

Hypothesis 6.11 was tested by comparing the number of students who were perceived by their teachers as being well liked or being not well liked by adults with the number of students who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

None of the findings were significant at the .01 level and the null hypothesis was, therefore, not rejected.

Summary

A summarization of the relationships between student acceptance by adults and student's school conduct reveals that:

- in grade block 1-12, 50 percent or more of the students, when faced with a difficult task, withdrew from the situation whether they were perceived as being well liked or being not well liked by adults.
- in grade block 1-12, of the students perceived to be well liked by adults, four times as many students when faced with a difficult task, faced the task intelligently when compared with students perceived as being not well liked by adults.
- in grade blocks 1-12, 4-6, and 9-12, of the students perceived as being well liked and of the students perceived as being not well liked, more than 50 percent were easily discouraged when faced with a problem.

- in grade block 1-12, of the students perceived as being well liked by adults, four times as many were reasonably persistent when compared with students perceived as being not well liked by adults; in grade block 4-6 the ratio is 9:1; and in grade block 9-12 the ratio is 3:1.
- in grade blocks 1-12, 1-3, 7-8, and 9-12, of the students perceived as being not well liked by adults, more were resistant and less were accepting with reference to authority when compared with students perceived as being well liked by adults.
- in grade block 9-12, of the students perceived as being not well liked by adults, five times as many were over-dependent with reference to authority as those in grade blocks 1-3 and 7-8.
- in grade blocks 1-12, 4-6, and 9-12, of the students perceived as being well liked by adults, more were emotionally calm, less were excitable, and less were apathetic than students perceived as being not well liked by adults.
- in grade block 7-8, of the students perceived as being not well liked by adults, more than 68.0 percent were apathetic in the classroom.
- in grade blocks 1-12 and 4-6, of the students perceived as being not well liked, more were bold and aggressive, more were less responsive, and more were shy and bashful in their relationships with other students compared with students perceived as being well liked.
- in grade block 1-3, of the students perceived as being not well liked by adults, four times as many were bold and aggressive in their relationships with other students compared with students perceived as being well liked.
- in grade blocks 1-12 and 9-12, of the students perceived as being not well liked by adults, more were normally communicative, more were very talkative, and less were quiet in their communication pattern compared with students perceived as being well liked by adults.

Behavior When Faced With a Difficult Task

Each student was identified by the classroom teacher as responding to a difficult task in one of the following three ways: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively. Eight null hypotheses were formulated to test whether significant relationships exist between student behavior when faced with a difficult task and each of the following eight variables:

1. School failure;
2. Behavior when faced with a problem;
3. Behavior with reference to authority;
4. Behavior with reference to leadership;
5. Behavior in the classroom;
6. Relationship with other students;
7. Classroom communication pattern; and
8. Choice of playmates.

Hypothesis 7.1

Null Hypothesis:

There is no relationship between student behavior when faced with a difficult task and incidence of school failure.

Hypothesis 7.1 was tested by comparing the number of students who when faced with a difficult task were perceived as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively with the incidence of school failure.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 7.2

Null Hypothesis:

There is no relationship between student behavior when faced with a difficult task and student behavior when faced with a problem.

Hypothesis 7.2 was tested by comparing the number of students who when faced with a difficult task, were perceived as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively with the number of students who when faced with a problem perceived as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in the Tables C.44, D.21, E.18, F.12, and G.24 and show that the variables (student behavior when faced with a difficult task and student behavior when faced with a problem) correlate for all grade blocks at .001 level.

The data for the grade block 1-12 reveal that of 281 students who when faced with a difficult task were perceived as withdrawing from the situation, 83.3 percent when faced with a problem were perceived as being easily discouraged, 14.2 percent were perceived as being reasonably persistent, and 2.5 percent were perceived as being blindly aggressive. Among 119 students who when faced with a difficult task were perceived as facing the task intelligently, 16.0 percent when faced with a problem were perceived as being easily discouraged, 84.0 percent were perceived as being reasonably

persistent, and 0 percent were perceived as being blindly aggressive. Among 94 students who when faced with a difficult task were perceived as acting impulsively, 62.8 percent when faced with a problem were perceived as being easily discouraged, 21.3 percent were perceived as being reasonably persistent, and 16.0 percent were perceived as being blindly aggressive.

The data for the grade block 1-3 reveal that of 93 students who when faced with a difficult task were perceived as withdrawing from the situation, 82.8 percent when faced with a problem were perceived as being easily discouraged, 14.0 percent were perceived as being reasonably persistent, and 3.2 percent were perceived as being blindly aggressive. Among 29 students who when faced with a difficult task were perceived as facing the task intelligently, 27.6 percent when faced with a problem were perceived as being easily discouraged, 72.4 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 35 students who when faced with a difficult task were perceived as acting impulsively, 57.1 percent when faced with a problem were perceived as being easily discouraged, 14.3 percent were perceived as being reasonably persistent, and 28.6 percent were perceived as being blindly aggressive.

The data for the grade block 4-6 reveal that of 68 students who when faced with a difficult task were perceived as withdrawing from the situation, 79.4 percent when faced with a problem were perceived as being easily discouraged, 19.1 percent were perceived as being reasonably persistent, and 1.5 percent were perceived as being blindly

aggressive. Among 24 students who when faced with a difficult task were perceived as facing the task intelligently, 4.2 percent when faced with a problem were perceived as being easily discouraged, 95.8 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 26 students who when faced with a difficult task were perceived as acting impulsively, 57.7 percent when faced with a problem were perceived as being easily discouraged, 26.9 percent were perceived as being reasonably persistent, and 15.4 percent were perceived as being blindly aggressive.

The data for the grade block 7-8 reveal that of 67 students who when faced with a difficult task were perceived as withdrawing from the situation, 82.1 percent when faced with a problem were perceived as being easily discouraged, 14.9 percent were perceived as being reasonably persistent, and 3.0 percent were perceived as being blindly aggressive. Among 24 students who when faced with a difficult task were perceived as facing the task intelligently, 20.8 percent when faced with a problem were perceived as being easily discouraged, 79.2 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 19 students who when faced with a difficult task were perceived as acting impulsively, 68.4 percent when faced with a problem were perceived as being easily discouraged, 26.3 percent were perceived as being reasonably persistent, and 5.3 percent were perceived as being blindly aggressive.

The data for the grade block 9-12 reveal that of 53 students who when faced with a difficult task were perceived as withdrawing from

the situation, 90.6 percent when faced with a problem were perceived as being easily discouraged, 7.5 percent were perceived as being reasonably persistent, and 1.9 percent were perceived as being blindly aggressive. Among 42 students who when faced with a difficult task were perceived as facing the task intelligently, 11.9 percent when faced with a problem were perceived as being easily discouraged, 88.1 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 14 students who when faced with a difficult task were perceived as acting impulsively, 78.6 percent when faced with a problem were perceived as being easily discouraged, 21.4 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive.

In summary, among students who when faced with a difficult task faced the task intelligently, 84.0 percent in grade block 1-12, 72.4 percent in grade block 1-3, 95.8 percent in grade block 4-6, 79.2 percent in grade block 7-8, and 88.1 percent in grade block 9-12 were reasonably persistent when faced with a problem.

Among the students who withdrew from the situation when faced with a difficult task, at least 80.0 percent in each of the grade blocks were easily discouraged when faced with a problem.

In the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among the students who when faced with a difficult task were perceived as acting impulsively, the number who were easily discouraged when faced with a problem exceeded those reasonably persistent or blindly aggressive.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 7.3

Null Hypothesis:

There is no relationship between student behavior when faced with a difficult task and student behavior with reference to authority.

Hypothesis 7.3 was tested by comparing the number of students who when faced with a difficult task, were perceived as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively with the number of students who with reference to authority were perceived as: (1) being over-dependent, (2) being accepting, or (3) being resistant.

The statistical results are presented in Tables C.45, D.22, and G.25 and show that the variables (student behavior when faced with a difficult task and student behavior with reference to authority) for the grade blocks 1-12, 1-3, and 9-12 correlate at .001 level.

The data for the grade block 1-12 reveal that of 266 students who when faced with a difficult task were perceived as withdrawing from the situation, 17.3 percent with reference to authority were perceived as being over-dependent, 69.9 percent with reference to authority were perceived as being accepting, and 12.8 percent with reference to authority were perceived as being resistant. Among 121 students who when faced with a difficult task were perceived as facing the task intelligently, 5.8 percent with reference to authority were perceived as being over-dependent, 91.7 percent with reference to authority were perceived as being accepting, and 2.5 percent with reference to authority were perceived as being resistant. Among 97 students who

when faced with a difficult task were perceived as acting impulsively, 13.4 percent with reference to authority were perceived as being over-dependent, 60.8 percent with reference to authority were perceived as being accepting, and 25.8 percent with reference to authority were perceived as being resistant.

The data for the grade block 1-3 reveal that of 88 students who when faced with a difficult task were perceived as withdrawing from the situation, 20.5 percent with reference to authority were perceived as being over-dependent, 71.6 percent with reference to authority were perceived as being accepting, and 8.0 percent with reference to authority were perceived as being resistant. Among 29 students who when faced with a difficult task were perceived as facing the task intelligently, 0 percent with reference to authority were perceived as being over-dependent, 100 percent with reference to authority were perceived as being accepting, and 0 percent with reference to authority were perceived as being resistant. Among 35 students who when faced with a difficult task were perceived as acting impulsively, 14.3 percent with reference to authority were perceived as being over-dependent, 62.9 percent with reference to authority were perceived as being accepting, and 22.9 percent with reference to authority were perceived as being resistant.

The data for the grade block 9-12 reveal that of 50 students who when faced with a difficult task were perceived as withdrawing from the situation, 20.0 percent with reference to authority were perceived as being over-dependent, 68.0 with reference to authority

were perceived as being accepting, and 12.0 percent with reference to authority were perceived as being resistant. Among 44 students who when faced with a difficult task were perceived as facing the task intelligently, 2.3 percent with reference to authority were perceived as being over-dependent, 93.2 percent with reference to authority were perceived as being accepting, and 4.5 percent with reference to authority were perceived as being resistant. Among 14 students who when faced with a difficult task were perceived as acting impulsively, 7.1 percent with reference to authority were perceived as being over-dependent, 50.0 percent with reference to authority were perceived as being accepting, and 42.9 percent with reference to authority were perceived as being resistant.

In summary, in grade blocks 1-12, 1-3, and 9-12 among the students who when faced with a difficult task withdrew from the situation and among those who faced the task intelligently, 68 percent and 91.0 percent, respectively, were accepting with reference to authority.

Among the students who act impulsively when faced with a difficult task, 63 to 50 percent in each grade block 1-12, 1-3, and 9-12 were accepting with reference to authority. On the other hand, in grade block 9-12 of the students who when faced with a difficult task act impulsively, 42.9 percent were resistant with reference to authority.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 9-12. Comparisons involving grade blocks 4-6 and 7-8 were not significant.

Hypothesis 7.4

Null Hypothesis:

There is no relationship between student behavior when faced with a difficult task and student behavior with reference to leadership.

Hypothesis 7.4 was tested by comparing the number of students who when faced with a difficult task were identified as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively with the number of students who were identified in their relationship with other students as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead.

The statistical results are presented in Tables C.46, D.23, F.13, and G.26 and show that the variables (student behavior when faced with a difficult task and student behavior with reference to leadership) for the grade blocks 1-12 and 1-3 correlate at .001 level and for grade blocks 7-8 and 9-12 correlate at .01 level.

The data for the grade block 1-12 reveal that of 282 students who were perceived as withdrawing from the situation when faced with a difficult task, 64.5 percent were perceived as generally avoiding leadership, 27.0 percent were at times either leading or following, and 8.5 percent were usually seeking to lead. Among 113 students who were perceived as facing the task intelligently when faced with a difficult task, 31.0 percent were perceived as generally avoiding leadership, 54.9 percent were at times leading or following, and 14.2 percent were usually seeking to lead. Among 100 students who were perceived as

acting impulsively when faced with a difficult task, 33.0 percent were perceived as generally avoiding leadership, 47.0 percent were at times either leading or following, and 20.0 percent were usually seeking to lead.

The data for the grade block 1-3 reveal that of 94 students who were perceived as withdrawing from the situation when faced with a difficult task, 60.0 percent were perceived as generally avoiding leadership, 28.7 percent were at times either leading or following, and 10.6 percent were usually seeking to lead. Among 29 students who were perceived as facing the task intelligently when faced with a difficult task, 17.2 percent were perceived as generally avoiding leadership, 69.0 percent were at times leading or following, and 13.8 percent were usually seeking to lead. Among 35 students who were perceived as acting impulsively when faced with a difficult task, 28.6 percent were perceived as generally avoiding leadership, 42.9 percent were at times either leading or following, and 28.6 percent usually seeking to lead.

The data for the grade block 7-8 reveal that of 68 students who were perceived as withdrawing from the situation when faced with a difficult task, 70.6 percent were perceived as generally avoiding leadership, 20.6 percent were at times either leading or following, and 8.8 percent were usually seeking to lead. Among 24 students who were perceived as facing the task intelligently when faced with a difficult task, 41.7 percent were perceived as generally avoiding leadership, 50.0 percent were at times either leading or following,

and 8.3 percent were usually seeking to lead. Among 22 students who were perceived as acting impulsively when faced with a difficult task, 31.8 percent were perceived as generally avoiding leadership, 54.5 percent were at times either leading or following, and 13.6 percent were usually seeking to lead.

The data for grade block 9-12 reveal that of 53 students who were perceived as withdrawing from the situation when faced with a difficult task, 8.1 percent were perceived as generally avoiding leadership, 18.9 percent were at times either leading or following, and 0 percent were usually seeking to lead. Among 36 students who were perceived as facing the task intelligently when faced with a difficult task, 44.4 percent were perceived as generally avoiding leadership, 41.7 percent were at times either leading or following, and 13.9 percent were usually seeking to lead. Among 14 students who were perceived as acting impulsively when faced with a difficult task, 42.9 percent were perceived as generally avoiding leadership, 50.0 percent were at times either leading or following, and 7.1 percent were usually seeking to lead.

In summary, in the grade blocks 1-12, 1-3, 7-8, and 9-12, more than 60 percent of the students who withdrew from the situation when faced with a difficult task generally avoided leadership.

In the grade blocks 1-12, 1-3, 7-8, and 9-12 among the students who when faced with a difficult task face the task intelligently, approximately 50 to 69 percent at times were leading or following.

Among the students in the grade blocks 1-12, 1-3, and 7-8, who when faced with a difficult task were perceived to act impulsively, the number usually seeking to lead exceeds those students who withdrew from the situation or faced the task intelligently; while in grade block 9-12 among the students who faced the task intelligently, more students were seeking to lead.

The null hypothesis for grade blocks 1-12, 1-3, 7-8, and 9-12 was, therefore, rejected. Comparisons involving grade block 4-6 were not significant.

Hypothesis 7.5

Null Hypothesis:

There is no relationship between student behavior when faced with a difficult task and student behavior in the classroom.

Hypothesis 7.5 was tested by comparing the number of students who when faced with a difficult task were identified as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively with the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable.

The statistical results are presented in Tables C.47, D.24, E.19, F.14, and G.27 and show that the variables (student behavior when faced with a difficult task and student behavior in the classroom) for grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

1 The data for the grade block 1-12 reveal that of 267 students who were perceived as withdrawing from the situation when faced with a difficult task, 31.1 percent were perceived as being apathetic in the classroom, 39.7 percent were perceived as being emotionally calm in the classroom, and 23.2 percent were perceived as being excitable in the classroom. Among 116 students who were perceived as facing the task intelligently when faced with a difficult task, 3.4 percent were perceived as being apathetic in the classroom, 81.0 percent were perceived as being emotionally calm in the classroom, and 15.5 percent were perceived as being excitable in the classroom. Among 97 students who were perceived as acting impulsively when faced with a difficult task, 27.8 percent were perceived as being apathetic in the classroom, 9.3 percent were perceived as being emotionally calm in the classroom, and 62.9 percent were perceived as being excitable in the classroom.

The data for the grade block 1-3 reveal that of 90 students who were perceived as withdrawing from the situation when faced with a difficult task, 30.0 percent were perceived as being apathetic in the classroom, 45.6 percent were perceived as being emotionally calm in the classroom, and 24.4 percent were perceived as being excitable in the classroom. Among 29 students who were perceived as facing the task intelligently when faced with a difficult task, 3.4 percent were perceived as being apathetic in the classroom, 72.4 percent were perceived as being emotionally calm in the classroom, and 14.0 percent were perceived as being excitable in the classroom. Among 36 students who were perceived as acting impulsively when faced with a difficult

task, 13.9 percent were perceived as being apathetic in the classroom, 27.8 percent were perceived as being emotionally calm in the classroom, and 42.0 percent were perceived as being excitable in the classroom.

The data for the grade block 4-6 reveal that of 62 students who were perceived as withdrawing from the situation when faced with a difficult task, 32.3 percent were perceived as being apathetic in the classroom, 37.1 percent were perceived as being emotionally calm in the classroom, and 30.6 percent were perceived as being excitable in the classroom. Among 23 students who were perceived as facing the task intelligently when faced with a difficult task, 0 percent were perceived as being apathetic in the classroom, 73.9 percent were perceived as being emotionally calm in the classroom, and 26.1 percent were perceived as being excitable in the classroom. Among 28 students who were perceived as acting impulsively when faced with a difficult task, 0 percent were perceived as being apathetic in the classroom, 32.1 percent were perceived as being emotionally calm in the classroom, and 67.9 percent were perceived as being excitable in the classroom.

The data for the grade block 7-8 reveal that of 62 students who were perceived as withdrawing from the situation when faced with a difficult task, 40.3 percent were perceived as being apathetic in the classroom, 37.1 percent were perceived as being emotionally calm in the classroom, and 22.6 percent were perceived as being excitable in the classroom. Among 23 students who were perceived as facing the task intelligently when faced with a difficult task, 4.3 percent were

perceived as being apathetic in the classroom, 82.6 percent were perceived as being emotionally calm in the classroom, and 13.0 percent were perceived as being excitable in the classroom. Among 18 students who were perceived as acting impulsively when faced with a difficult task, 16.7 percent were perceived as being apathetic in the classroom, and 16.7 percent were perceived as being emotionally calm in the classroom, and 66.7 percent were perceived as being excitable in the classroom.

The data for grade block 9-12 reveal that of 53 students who were perceived as withdrawing from the situation when faced with a difficult task, 50.9 percent were perceived as being apathetic in the classroom, 35.8 percent were perceived as being emotionally calm in the classroom, and 13.2 percent were perceived as being excitable in the classroom. Among 41 students who were perceived as facing the problem intelligently when faced with a difficult task, 4.9 percent were perceived as being apathetic in the classroom, 90.2 percent were perceived as being emotionally calm in the classroom, and 13.2 percent were perceived as being excitable in the classroom. Among 15 students who were perceived as acting impulsively when faced with a difficult task, 6.7 percent were perceived as being apathetic in the classroom, 33.3 percent were perceived as being emotionally calm in the classroom, and 60.0 percent were perceived as being excitable in the classroom.

In summary, in the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among the students who withdrew from the situation when faced with a difficult task, the number who were perceived as apathetic ranged from

30 to 50 percent; the higher percentages occurring in the grade blocks 7-8 and 9-12.

In the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among the students who when faced with a difficult task, faced the task intelligently, 70 to 90 percent were emotionally calm, with the higher percentage occurring in grade blocks 7-8 and 9-12.

In the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among the students who when faced with a difficult task, were perceived as acting impulsively, 63 percent or more were excitable in the classroom except among students in grade block 1-3 where the percentage was 42.

The null hypothesis for grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 was, therefore, rejected.

Hypothesis 7.6

Null Hypothesis:

There is no relationship between student behavior when faced with a difficult task and student relationship with other students.

Hypothesis 7.6 was tested by comparing the number of students who when faced with a difficult task were identified as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively with the number of students who were identified in their relationship with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.48, D.25, and G.28 and show that the variables (student behavior when faced with a difficult task and student relationship with other students) for the

grade blocks 1-12 and 9-12 correlate at the .001 level, and for the grade block 1-3 at .01 level.

The data for the grade block 1-12 reveal that of 255 students who were perceived as withdrawing from the situation when faced with a difficult task, 33.3 percent were perceived as being shy and bashful in their relationship with other students, 53.3 percent were perceived as being responsive in their relationship with other students, and 13.3 percent were perceived as being bold and aggressive in their relationship with other students. Among 114 students who were perceived as facing the task intelligently when faced with a difficult task, 18.4 percent were perceived as being shy and bashful in their relationship with other students, 72.8 percent were perceived as being responsive in their relationship with other students, and 8.8 percent were perceived as being bold and aggressive in their relationship with other students. Among 99 students who were perceived as acting impulsively when faced with a difficult task, 10.1 percent were perceived as being shy and bashful in their relationship with other students, 52.5 percent were perceived as being responsive in their relationship with other students, and 37.4 percent were perceived as being bold and aggressive in their relationship with other students.

The data for the grade block 9-12 reveal that of 46 students who were perceived as withdrawing from the situation when faced with a difficult task, 50.0 percent were perceived as being shy and bashful in their relationship with other students, 50.0 percent were perceived as being responsive in their relationship with other students, and

0 percent were perceived as being bold and aggressive in their relationship with other students. Among 39 students who were perceived as facing the task intelligently when faced with a difficult task, 25.6 percent were perceived as being shy and bashful in their relationship with other students, 51.8 percent were perceived as being responsive in their relationship with other students, and 2.6 percent were perceived as being bold and aggressive in their relationship with other students. Among 15 students who were perceived as acting impulsively when faced with a difficult task, 6.7 percent were perceived as being shy and bashful in their relationship with other students, 60.0 percent were perceived as being responsive in their relationship with other students, and 33.3 percent were perceived as being bold and aggressive in their relationship with other students.

The data for the grade block 1-3 reveals that of 86 students who were perceived as withdrawing from the situation when faced with a difficult task, 24.4 percent were perceived as being shy and bashful in their relationship with other students, 59.3 percent were perceived as being responsive in their relationship with other students, and 16.3 percent were perceived as being bold and aggressive in their relationship with other students. Among 28 students who were perceived as facing the task intelligently when faced with a difficult task, 10.7 percent were perceived as being shy and bashful in their relationship with other students, 75.0 percent were perceived as being responsive in their relationship with other students, and 14.3 percent were perceived as being bold and aggressive in their relationship with other

students. Among 35 students who were perceived as acting impulsively when faced with a difficult task, 11.4 percent were perceived as being shy and bashful in their relationship with other students, 45.7 percent were perceived as being responsive in their relationship with other students, and 42.9 percent were perceived as being bold and aggressive in their relationship with other students.

In summary, the grade blocks 1-12, 1-3, and 9-12, all students, regardless of behavior pattern, when faced with a difficult task were responsive in their relationship with other students. However, it should be noted that among the students in grade block 1-3 who withdrew from the situation when faced with a difficult task, approximately 50.0 percent were shy and bashful. Among the students in grade blocks 1-12, 1-3, and 9-12 who act impulsively when faced with a difficult task, 33 to 43 percent were bold and aggressive.

The null hypothesis for the grade blocks 1-12, 9-12, and 1-3 was, therefore, rejected. Comparisons involving grade blocks 4-6 and 7-8 were not significant.

Hypothesis 7.7

Null Hypothesis:

There is no relationship between student behavior when faced with a difficult task and classroom communication pattern.

Hypothesis 7.7 was tested by comparing the number of students who when faced with a difficult task were identified as: (1) withdrawing from the situation, (2) facing the task intelligently, or

(3) acting impulsively with the number of students who were identified as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Tables C.49, D.26, E.20, and G.29 and show that the variables (when faced with a difficult task and classroom communication pattern) for the grade blocks 1-12, 1-3, 4-6, and 9-12 correlate at the .001 level.

The data for grade blocks 1-12 reveal that of 279 students who were perceived as withdrawing from the situation when faced with a difficult task, 28.3 percent were perceived as being quiet in their communication pattern, 53.4 percent were perceived as being normally communicative in their communication pattern, and 18.3 percent were perceived as being very talkative in their communication pattern. Among 118 students who were perceived as facing the task intelligently when faced with a difficult task, 54.2 percent were perceived as being quiet in their communication pattern, 33.9 percent were perceived as being normally communicative in their communication pattern, and 11.9 percent were perceived as being very talkative in their communication pattern. Among 100 students who were perceived as acting impulsively when faced with a difficult task, 37.0 percent were perceived as being quiet in their communication pattern, 12.0 percent were perceived as being normally communicative in their communication pattern, and 51.0 percent were perceived as being very talkative in their communication pattern.

The data for the grade block 1-3 reveal that of 93 students who were perceived as withdrawing from the situation when faced with a difficult task, 32.3 percent were perceived as being quiet in their communication pattern, 47.3 percent were perceived as being normally communicative in their communication pattern, and 20.4 percent were perceived as being very talkative in their communication pattern. Among 28 students who were identified as facing the task intelligently when faced with a difficult task, 53.6 percent were perceived as being quiet in their communication pattern, 39.3 percent were perceived as being normally communicative in their communication pattern, and 7.1 percent were perceived as being very talkative in their communication pattern. Among 37 students who were perceived as acting impulsively when faced with a difficult task, 32.4 percent were perceived as being quiet in their communication pattern, 5.4 percent were perceived as being normally communicative in their communication pattern, and 62.2 percent were perceived as being very talkative in their communication pattern.

The data for the grade block 4-6 reveal that of 66 students who were perceived as withdrawing from the situation when faced with a difficult task, 30.3 percent were perceived as being quiet in their communication pattern, 43.9 percent were perceived as being normally communicative in their communication pattern, and 25.8 percent were perceived as being very talkative in their communication pattern. Among 24 students who were perceived as facing the task intelligently when faced with a difficult task, 66.7 percent were perceived as being

quiet in their communication pattern, 12.5 percent were perceived as being normally communicative in their communication pattern, and 20.8 percent were perceived as being very talkative in their communication pattern. Among 30 students who were perceived as acting impulsively when faced with a difficult task, 43.3 percent were perceived as being quiet in their communication pattern, 6.7 percent were perceived as being normally communicative in their communication pattern, and 50.0 percent were perceived as being very talkative in their communication pattern.

The data for the grade block 9-12 reveal that of 52 students who were perceived as withdrawing from the situation when faced with a difficult task, 15.4 percent were perceived as being quiet in their communication pattern, 73.1 percent were perceived as being normally communicative in their communication pattern, and 11.5 percent were perceived as being talkative in their communication pattern. Among 44 students who were perceived as facing the task intelligently when faced with a difficult task, 54.5 percent were perceived as being quiet in their communication pattern, 36.4 percent were perceived as being normally communicative in their communication pattern, and 9.1 percent were perceived as being very talkative in their communication pattern. Among 14 students who were perceived as acting impulsively when faced with a difficult task, 28.6 percent were perceived as being quiet in their communication pattern, 35.7 percent were perceived as being normally communicative in their communication pattern, and 35.7 percent were perceived as being very talkative in their communication pattern.

In summary, among students who when faced with a difficult task faced the task intelligently, 53.6 percent in grade block 1-3, 66.7 percent in grade block 4-6, and 54.5 percent in grade block 9-12 were quiet in their communication pattern. Among the students in grade blocks 1-3 and 4-6 who act impulsively when faced with a difficult task, significant percentages tend to be either quiet or very talkative. In the grade block 9-12 nearly a third are quiet, a third normally communicative, and a third very talkative.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, and 9-12. Comparisons involving grade block 7-8 were not significant.

Hypothesis 7.8

Null Hypothesis:

There is no relationship between student behavior when faced with a difficult task and choice of playmates.

Hypothesis 7.8 was tested by comparing the number of students who when faced with a difficult task were identified as: (1) withdrawing from the situation, (2) facing the task intelligently, or (3) acting impulsively with the number of students who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Summary

A summarization of the relationship between student behavior when faced with a difficult task and student conduct reveals that:

- in all grade blocks (i.e., grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12), students who withdrew from the situation or act impulsively when faced with a difficult task were easily discouraged when confronted with a problem.
- those students who faced the task intelligently were reasonably persistent when confronted with a problem.
- in grade blocks 1-12 and 1-3, more than 60 percent of the students who either withdrew from the situation, faced the task intelligently, or act impulsively when faced with a difficult task were accepting with reference to authority.
- in grade blocks 1-12, 1-3, and 9-12, more than 90 percent of the students who face the task intelligently when faced with a difficult task were accepting with reference to authority.
- the number of students who resist authority appears to be largest among the students in grade block 9-12 who act impulsively when faced with a difficult task.
- in grade blocks 1-12, 1-3, 7-8, and 9-12, more than 60 percent of the students who withdrew from the situation when faced with a difficult task generally avoid leadership.
- with the exception of grade block 1-3, at least 50 percent of the students who faced a difficult task intelligently were sometimes leading and sometimes following. (In grade block 1-3, 69 percent of the students were sometimes leading or following.)
- 40 to 50 percent of the students who act impulsively when faced with a difficult task sometimes were leading or following with the exception of grade block 7-8 where 54 percent sometimes were leading or following.
- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, students who reacted to a difficult task by either withdrawing from the situation or facing the task intelligently were by a substantial majority emotionally calm in the classroom.

- with the exception of grade block 1-3, 63 percent of the students who acted impulsively when faced with a difficult task were excitable. (In grade block 1-3, 42 percent of the students were excitable.)
- in grade blocks 1-12, 1-3, and 9-12, a large percentage of children were responsive in their relationship to other children regardless of their behavior when faced with a difficult task.
- among the students who withdrew from the situation when faced with a difficult task, approximately 25 percent in grade block 1-3 were shy and bashful; while in grade block 9-12 approximately 50 percent were shy and bashful.

Behavior When Faced With a Problem

Each student was identified by the classroom teacher as responding to a problem in one of the following three ways: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive. Three null hypotheses were formulated to test whether significant relationships exist between student behavior when faced with a problem and each of the following three variables:

1. School failure;
2. Relationship with other students; and
3. Choice of playmates.

Hypothesis 8.1

Null Hypothesis:

There is no relationship between student behavior when faced with a problem and incidence of school failure.

Hypothesis 8.1 was tested by comparing the number of students who when faced with a problem were identified as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive with the incidence of school failure.

The statistical results are presented in Table G.30 and show that the variables (student behavior when faced with a problem and school failure) for the grade block 9-12 correlate at the .01 level.

The data for the grade block 9-12 reveal that of 73 students who were perceived as being easily discouraged when faced with a problem, 56.2 percent were not reported to have repeated a grade, 39.7 percent were reported to have repeated one grade, 2.7 percent were reported to have repeated two grades, and 1.4 percent were reported to have repeated three grades. Among 54 students who were perceived as being reasonably persistent when faced with a problem, 88.9 percent were not reported to have repeated a grade, 11.1 percent were reported to have repeated one grade, 0 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades. Among 2 students who were perceived as being blindly aggressive when faced with a problem, 100 percent were not reported to have repeated a grade.

In summary, in grade block 9-12, among the students who when faced with a problem were easily discouraged, 39.7 percent were reported to have repeated one grade; while among the students who when faced with a problem were reasonably persistent, 11 percent were reported to have repeated one grade.

The null hypothesis was, therefore, rejected for the grade block 9-12. Comparisons involving grade blocks 1-12, 1-3, 4-6, and 7-8 were not significant.

Hypothesis 8.2

Null Hypothesis:

There is no relationship between student behavior when faced with a problem and student relationship with other students.

Hypothesis 8.2 was tested by comparing the number of students who when faced with a problem were identified as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive with the number of students who were identified in their association with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.50 and D.27 and show that the variables (student behavior when faced with a problem and student relationship with other students) for the grade block 1-12 correlate at .001 level, and for the grade block 1-3 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 300 students who were perceived as being easily discouraged when faced with a problem, 27.7 percent were perceived as being shy and bashful in their relationship with other students, 51.0 percent were perceived as being responsive in their relationship with other students, and 21.3 percent were perceived as being bold and aggressive in their relationship with other students. Among 181 students who were perceived as being reasonably persistent when faced with a problem, 22.7 percent were perceived as being shy and bashful in their relationship with other students, 68.5 percent were perceived as being responsive in

their relationship with other students, and 8.8 percent were perceived as being bold and aggressive in their relationship with other students. Among 26 students who were perceived as being blindly aggressive when faced with a problem, 11.5 percent were perceived as being shy and bashful in their relationship with other students, 30.8 percent were perceived as being responsive in their relationship with other students, and 57.7 percent were perceived as being bold and aggressive in their relationship with other students.

The data for the grade block 1-3 reveal that of 102 students who were perceived as being easily discouraged when faced with a problem, 19.6 percent were perceived as being shy and bashful in their relationship with other students, 54.9 percent were perceived as being responsive in their relationship with other students, and 25.5 percent were perceived as being bold and aggressive in their relationship with other students. Among 48 students who were perceived as being reasonably persistent when faced with a problem, 22.9 percent were perceived as being shy and bashful in their relationship with other students, 66.7 percent were perceived as being responsive in their relationship with other students, and 10.4 percent were perceived as being bold and aggressive in their relationship with other students. Among 13 students who were perceived as being blindly aggressive when faced with a problem, 7.7 percent were perceived as being shy and bashful in their relationship with other students, 30.8 percent were perceived as being responsive in their relationship with other students, and 61.5 percent were

perceived as being bold and aggressive in their relationship with other students.

In summary, in grade blocks 1-12 and 1-3, of the students who were easily discouraged when faced with a problem, more than 50 percent were responsive in their relationship with other students; of the students who were reasonably persistent when faced with a problem, more than 66 percent were responsive in their relationship with other students; and of the students who were blindly aggressive when faced with a problem, approximately 60 percent were bold and aggressive in their relationship with other students.

The null hypothesis was rejected for the grade blocks 1-12 and 1-3. Comparisons involving grade blocks 4-6, 7-8, and 9-12 were not significant.

Hypothesis 8.3

Null Hypothesis:

There is no relationship between student behavior when faced with a problem and choice of playmates.

Hypothesis 8.3 was tested by comparing the number of students who when faced with a problem were identified as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive with the number of students who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

The statistical results are presented in Table C.51 and show that the variables (student behavior when faced with a problem and choice of playmates) for the grade block 1-12 correlate at .01 level.

The data for the grade block 1-12 reveal that of 277 students who were perceived as being easily discouraged when faced with a problem, 15.9 percent were perceived as generally associating with younger children, 79.4 percent were perceived as generally associating with children their own age, and 4.7 percent were perceived as generally associating with older children. Among 158 students who were perceived as being reasonably persistent when faced with a problem, 6.3 percent were perceived as generally associating with younger children, 90.5 percent were perceived as generally associating with children their own age, and 3.2 percent were perceived as generally associating with older children. Among 23 students who were perceived as being blindly aggressive when faced with a problem, 13.0 percent were perceived as generally associating with younger children, 73.9 percent were perceived as generally associating with children their own age, and 13.0 percent were perceived as generally associating with older children.

In summary, in grade block 1-12, more than 73 percent of the students play with children their own age regardless of whether they were easily discouraged, or reasonably persistent, or blindly aggressive when faced with a problem.

The null hypothesis was, therefore, rejected for the grade block 1-12. Comparisons involving grade blocks 1-3, 4-6, 7-8, and 9-12 were not significant.

Summary

A summarization of the relationship between student behavior when faced with a problem and student school conduct reveals that:

- in grade block 9-12, of the students who were reasonably persistent when faced with a problem, approximately 12 percent were reported to have repeated a grade compared with approximately 40 percent of the students who were easily discouraged when faced with a problem and were reported to have repeated a grade.
- in grade blocks 1-12 and 1-3, of the students who when faced with a problem, were either easily discouraged or reasonably persistent, more than 50 percent were responsive in their relationship with other children; whereas, of the students who were blindly aggressive when faced with a problem, approximately 66 percent were bold and aggressive in their relationship with other children.
- in grade block 1-12, regardless of whether the students were easily discouraged, or reasonably persistent, more than 73 percent played with children their own age.

Behavior With Reference to Authority

Each student was identified by the classroom teacher in one of the following three ways: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority. Five null hypotheses were formulated to test whether significant relationships exist between student behavior with reference to authority and each of the following five variables:

1. School failure;
2. Behavior when faced with a problem;
3. Relationship with other students;
4. Classroom communication pattern; and
5. Choice of playmates.

Hypothesis 9.1

Null Hypothesis:

There is no relationship between student behavior with reference to authority and incidence of school failure.

Hypothesis 9.1 was tested by comparing the number of students who were identified as: (1) being over-dependent with reference to authority, (b) being accepting with reference to authority, or (3) being resistant with reference to authority with the incidence of school failure.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 9.2

Null Hypothesis:

There is no relationship between student behavior with reference to authority and student behavior when faced with a problem.

Hypothesis 9.2 was tested by comparing the number of students who were identified as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority with the number of students who when faced with a problem were identified as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

Statistical results are presented in Tables C.52, E.21, F.15, and G.31 and show that the variables (student behavior with reference to authority and student behavior when faced with a problem) for the

grade blocks 1-12 and 7-8 correlate at the .001 level and for the grade blocks 4-6 and 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 69 students who were perceived as being over-dependent with reference to authority, 82.6 percent when faced with a problem were perceived as being easily discouraged, 15.9 percent were perceived as being reasonably persistent, and 1.4 percent were perceived as being blindly aggressive. Among 393 students who were perceived as being accepting with reference to authority, 52.7 percent when faced with a problem were perceived as being easily discouraged, 43.5 percent were perceived as being reasonably persistent, and 3.8 percent were perceived as being blindly aggressive. Among 69 students who were perceived as being resistant with reference to authority, 73.9 percent when faced with a problem were perceived as being easily discouraged, 10.1 percent were perceived as being reasonably persistent, and 15.9 percent were perceived as being blindly aggressive.

The data for the grade block 7-8 reveal that of 15 students who were perceived as being over-dependent with reference to authority, 86.7 percent when faced with a problem were perceived as being easily discouraged, 13.3 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 82 students who were perceived as being accepting with reference to authority, 53.7 percent when faced with a problem were perceived as being discouraged, 45.1 percent were perceived as being blindly persistent, and 1.2 percent were perceived as being blindly aggressive. Among 19

students who were perceived as being resistant with reference to authority, 73.7 percent when faced with a problem were perceived as being easily discouraged, 5.3 percent were perceived as being reasonably persistent, and 21.1 percent were perceived as being blindly aggressive.

The data for the grade block 4-6 reveal that of 16 students who were perceived as being over-dependent with reference to authority, 68.8 percent when faced with a problem were perceived as being easily discouraged, 31.3 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 92 students who were perceived as being accepting with reference to authority, 51.1 percent when faced with a problem were perceived as being easily discouraged, 46.7 percent were perceived as being reasonably persistent, and 2.2 percent were perceived as being blindly aggressive. Among 17 students who were perceived as being resistant with reference to authority, 76.5 percent when faced with a problem were perceived as being easily discouraged, 5.9 percent were perceived as being reasonably persistent, and 17.6 percent were perceived as being blindly aggressive.

The data for the grade block 9-12 reveal that of 14 students who were perceived as being over-dependent with reference to authority 85.7 percent when faced with a problem were perceived as being easily discouraged, 14.3 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 89 students who were perceived as being accepting with reference to authority, 47.2 percent when faced with a problem were perceived as being easily

discouraged, 51.7 percent were perceived as being reasonably persistent, and 1.1 percent were perceived as being blindly aggressive. Among 15 students who were perceived as being resistant with reference to authority, 80.0 percent when faced with a problem were perceived as being easily discouraged, 13.3 percent were perceived as being reasonably persistent, and 6.7 were perceived as being blindly aggressive.

In summary, in grade blocks 1-12 and 7-8, more than 82 percent of the students perceived as being over-dependent with reference to authority were easily discouraged when faced with a problem. On the other hand, in grade block 4-6, more than 76 percent of the students perceived as being resistant to authority were easily discouraged when faced with a problem.

In grade blocks 1-12, 4-6, and 7-8, among the students who were accepting of authority, the percentage who were reasonably persistent when faced with a problem exceeded by no more than 9 percent those students who were easily discouraged when faced with a problem.

In grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among the students who were resistant with reference to authority, the percentage who were blindly aggressive when faced with a problem exceeded those reasonably persistent or easily discouraged.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 4-6, 7-8, and 9-12. Comparisons involving grade block 1-3 were not significant.

Hypothesis 9.3

Null Hypothesis:

There is no relationship between student behavior with reference to authority and student relationship with other students.

Hypothesis 9.3 was tested by comparing the number of students who were identified as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority with the number of students who were identified in their relationship with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.53, D.28, E.22, F.16, and G.32 and show that the variables (student behavior with reference to authority and student relationship with other students) for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 62 students who were perceived as being over-dependent with reference to authority, 37.1 percent were perceived as being shy and bashful in their relationship with other students, 48.4 percent were perceived as being responsive in their relationship with other students, and 14.5 percent were perceived as being bold and aggressive in their relationship with other students. Among 388 students who were perceived as being accepting with reference to authority, 23.5 percent were perceived as being shy and bashful in their relationship with other students, 65.5

percent were perceived as being responsive in their relationship with other students, and 11.1 percent were perceived as being bold and aggressive in their relationship with other students. Among 64 students who were perceived as being resistant with reference to authority, 6.3 percent were perceived as being shy and bashful in their relationship with other students, 34.4 percent were perceived as being responsive in their relationship with other students, and 59.4 percent were perceived as being bold and aggressive in their relationship with other students.

The data for the grade block 1-3 reveal that of 22 students who were perceived as being over-dependent with reference to authority, 31.8 percent were perceived as being shy and bashful in their relationship with other students, 54.5 percent were perceived as being responsive in their relationship with other students, and 13.6 percent were perceived as being bold and aggressive in their relationship with other students. Among 125 students who were perceived as being accepting with reference to authority, 20.0 percent were perceived as being shy and bashful in their relationship with other students, 62.4 percent were perceived as being responsive in their relationship with other students, and 17.6 percent were perceived as being bold and aggressive in their relationship with other students. Among 16 students who were perceived as being resistant with reference to authority, 6.3 percent were perceived as being shy and bashful in their relationship with other students, 25.0 percent were perceived as being responsive in their relationship with other students, and

68.8 percent were perceived as being bold and aggressive in their relationship with other students.

The data for the grade block 4-6 reveal that of 13 students who were perceived as being over-dependent with reference to authority, 30.8 percent were perceived as being shy and bashful in their relationship with other students, 61.5 percent were perceived as being responsive in their relationship with other students, and 7.7 percent were perceived as being bold and aggressive in their relationship with other students. Among 97 students who were perceived as being accepting with reference to authority, 18.6 percent were perceived as being shy and bashful in their relationship with other students, 68.0 percent were perceived as being responsive in their relationship with other students, and 13.4 percent were perceived as being bold and aggressive in their relationship with other students. Among 16 students who were perceived as being resistant with reference to authority, 0 percent were perceived as being shy and bashful in their relationship with other students, 31.3 percent were perceived as being responsive in their relationship with other students, and 68.8 percent were perceived as being bold and aggressive in their relationship with other students.

The data for the grade block 7-8 reveal that of 15 students who were perceived as being over-dependent with reference to authority, 33.3 percent were perceived as being shy and bashful in their relationship with other students, 33.3 percent were perceived as being responsive in their relationship with other students, 33.3 percent were perceived as being bold and aggressive in their relationship with

other students. Among 81 students who were perceived as being accepting with reference to authority, 29.6 percent were perceived as being shy and bashful in their relationship with other students, 63.0 percent were perceived as being responsive in their relationship with other students, 7.4 percent were perceived as being bold and aggressive in their relationship with other students. Among 19 students who were perceived as being resistant with reference to authority, 10.5 percent were perceived as being shy and bashful in their relationship with other students, 31.6 percent were perceived as being responsive in their relationship with other students, and 57.9 percent were perceived as being bold and aggressive in their relationship with other students.

The data for the grade block 9-12 reveal that of 12 students who were perceived as being over-dependent with reference to authority, 58.3 percent were perceived as being shy and bashful in their relationship with other students, 41.7 percent were perceived as being responsive in their relationship with other students, and 0 percent were perceived as being bold and aggressive in their relationship with other students. Among 85 students who were perceived as being accepting with reference to authority, 28.2 percent were perceived as being shy and bashful in their relationship with other students, 69.4 percent were perceived as being responsive in their relationship with other students, and 2.4 percent were perceived as being bold and aggressive in their relationship with other students. Among 13 students who were perceived as being resistant with reference to

authority, 7.7 percent were perceived as being shy and bashful in their relationship with other students, 53.8 percent were perceived as being responsive in their relationship with other students, and 38.5 percent were perceived as being bold and aggressive in their relationship with other students.

In summary, in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, of the students who were accepting of authority, more than 62 percent were responsive in their relationship with other students. With the exception of grade block 9-12, at least 30 percent of the students who were over-dependent with reference to authority were shy and bashful in their relationship with other students; in grade block 9-12, 58.0 percent of the students were shy and bashful.

In grade blocks 1-12, 1-3, 4-6, and 7-8, among the students who were perceived as being resistant with reference to authority, 58 to 68 percent were bold and aggressive in their relationship with other students, while among students in grade block 9-12 who were perceived as being resistant with reference to authority, 38 percent were bold and aggressive.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 9.4

Null Hypothesis:

There is no relationship between student behavior with reference to authority and classroom communication pattern.

Hypothesis 9.4 was tested by comparing the number of students who were identified as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority with the number of students who were identified in the classroom as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Tables C.54, D.29, E.23, and G.33 and show that the variables (student behavior with reference to authority and classroom communication pattern) for the grade blocks 1-12, 4-6, and 9-12 correlate at the .001 level, and for the grade block 1-3 at the .01 level.

The data for the grade block 1-12 reveal that of 71 students who were perceived as being over-dependent with reference to authority, 31.0 percent were perceived as being quiet in their communication pattern, 49.3 percent as being normally communicative in their communication pattern, and 19.7 percent as being very talkative in their communication pattern. Among 408 students who were perceived as being accepting with reference to authority, 43.1 percent were perceived as being quiet in their communication pattern, 39.2 percent as being normally communicative in their communication pattern, and 17.6 percent as being talkative in their communication pattern.

Among 66 students who were perceived as being resistant with reference to authority, 18.2 percent were perceived as being quiet in their communication pattern, 21.2 percent as being normally communicative in their communication pattern, and 60.6 percent as being very talkative in their communication pattern.

The data for the grade block 4-6 reveal that of 17 students who were perceived as being over-dependent with reference to authority, 29.4 percent were perceived as being quiet in their communication pattern, 52.9 percent as being normally communicative in their communication pattern, and 17.6 percent as being very talkative in their communication pattern. Among 96 students who were perceived as being accepting with reference to authority, 50.0 percent were perceived as being quiet in their communication pattern, 28.1 percent as being normally communicative in their communication pattern, and 21.9 percent as being very talkative in their communication pattern. Among 17 students who were perceived as being resistant with reference to authority, 23.5 percent were perceived as being quiet in their communication pattern, 5.9 percent as being normally communicative in their communication pattern, and 70.6 percent as being very talkative in their communication pattern.

The data for the grade block 9-12 reveal that of 14 students who were perceived as being over-dependent with reference to authority, 21.4 percent were perceived as being quiet in their communication pattern, 64.3 percent as being normally communicative in their communication pattern, and 14.3 percent as being very talkative

in their communication pattern. Among 93 students who were perceived as being accepting with reference to authority, 41.9 percent were perceived as being quiet in their communication pattern, 50.5 percent as being normally communicative in their communication pattern, and 7.5 percent as being very talkative in their communication pattern. Among 15 students who were perceived as being resistant with reference to authority, 13.3 percent were perceived as being quiet in their communication pattern, 26.7 percent as being normally communicative in their communication pattern, and 60.0 percent as being very talkative in their communication pattern.

The data for the grade block 1-3 reveal that of 25 students who were perceived as being over-dependent with reference to authority, 40.0 percent were perceived as being quiet in their communicative pattern, 40.0 percent as being normally communicative in their communication pattern, and 20.0 percent were perceived as being very talkative in their communication pattern. Among 132 students who were perceived as being accepting with reference to authority, 40.9 percent were perceived as being quiet in their communication pattern, 34.8 percent were perceived as being normally communicative in their communication pattern, and 24.2 percent were perceived as being very talkative in their communication pattern. Among 19 students who were perceived as being resistant with reference to authority, 15.8 percent were perceived as being quiet in their communication pattern, 21.1 percent were perceived as being normally communicative in their communication pattern, and 63.2 percent were perceived as being very talkative in their communication pattern.

In summary, in each of the grade blocks 1-12, 1-3, and 4-6, among the students who were over-dependent with reference to authority, at least 40 percent were normally communicative. This percentage exceeded the percentage of students who were accepting of, or resistant to authority and were normally communicative. In grade blocks 1-12, 1-3, and 4-6, more students who were accepting of authority were quiet in their communication pattern than were students who were perceived as over-dependent or resistant. In grade blocks 1-12, 1-3, and 4-6, more students who were perceived as being resistant to authority were very talkative than were students perceived as being over-dependent or accepting of authority.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, and 9-12. Comparisons involving grade block 7-8 were not significant.

Hypothesis 9.5

Null Hypothesis:

There is no relationship between student behavior with reference to authority and choice of playmates.

Hypothesis 9.5 was tested by comparing the number of students who were identified as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority with the number of students who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

The statistical results are presented in Tables C.55 and F.17 and show that the variables (student behavior with reference to authority and choice of playmates) for the grade blocks 1-12 and 7-8 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 57 students who were perceived as being over-dependent with reference to authority, 21.1 percent were perceived as generally associating with younger children, 75.4 percent were perceived as generally associating with children their own age, and 3.5 percent were perceived as generally associating with older children. Among 352 students who were perceived as being accepting with reference to authority, 9.4 percent were perceived as generally associating with younger children, 86.9 percent were perceived as generally associating with children their own age, and 3.7 percent were perceived as generally associating with older children. Among 52 students who were perceived as being resistant with reference to authority, 11.5 percent were perceived as generally associating with younger children, 76.9 percent were perceived as generally associating with children their own age, and 11.5 percent were perceived as generally associating with older children.

The data for the grade block 7-8 reveals that of 10 students who were perceived as being over-dependent with reference to authority, 40.0 percent were perceived as generally associating with younger children, 60.0 percent were perceived as generally associating with children their own age, and 0 percent were perceived as generally

associating with older children. Among 71 students who were perceived as being accepting with reference to authority, 9.9 percent were perceived as generally associating with younger children, 87.3 percent were perceived as generally associating with children their own age, and 2.8 percent were perceived as generally associating with older children. Among 13 students who were perceived as being resistant with reference to authority, 15.4 percent were perceived as generally associating with younger children, 61.5 percent were perceived as generally associating with children their own age, and 23.1 percent were perceived as generally associating with older children.

In summary, in grade blocks 1-12 and 7-8, more than 60 percent of the students who play with children their own age were over-dependent or resistant with reference to authority; among the students who were accepting of authority, 86 percent play with children their own age. In grade blocks 1-12 and 7-8 students who were over-dependent with reference to authority and chose younger children as playmates exceeded the percentage of students who accept or resist authority and chose younger children as playmates. In grade blocks 1-12 and 7-8 students who were more likely to choose older students as playmates were students who resisted authority.

The null hypothesis was, therefore, rejected for the grade blocks 1-12 and 7-8. Comparisons involving grade blocks 1-3, 4-6, and 9-12 were not significant.

Summary

A summarization of the relationship between student behavior with reference to authority and student school conduct reveals that:

- in grade blocks 1-12 and 7-8, more than 82 percent of the students perceived as being over-dependent with reference to authority were easily discouraged when faced with a problem. On the other hand, in grade block 4-6, more than 76 percent of the students perceived as being resistant to authority were easily discouraged when faced with a problem.
- in grade blocks 1-12, 4-6, and 7-8, among the students who were accepting of authority, the percentage who were reasonably persistent when faced with a problem was exceeded no more than 9 percent by those students who were easily discouraged when faced with a problem.
- in grade blocks 1-12, 4-6, and 7-8, among the students who were resistant with reference to authority, the percentage who were blindly aggressive when faced with a problem exceeded those reasonably persistent.
- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among students who were accepting of authority, more than 62 percent were responsive in their relationship with other students.
- with the exception of grade block 9-12, at least 30 percent of the students who were over-dependent with reference to authority were shy and bashful in their relationship with other students; in grade block 9-12, 58 percent of the students were shy and bashful.
- in grade blocks 1-12, 1-3, 4-6, and 7-8, among students who were perceived as being resistant with reference to authority, 58 to 68 percent were bold and aggressive in their relationship with other students; while among students in grade block 9-12 who were perceived as being resistant with reference to authority, 38 percent were bold and aggressive.
- in grade blocks 1-12, 1-3, and 4-6, among students who were over-dependent with reference to authority, at least 40 percent were normally communicative. This percentage exceeded the percentage of students who were accepting of, or resistant to authority and were normally communicative.
- in grade blocks 1-12, 1-3, and 4-6, more students who were accepting of authority were quiet in their communication pattern than were students who were perceived as over-dependent or resistant.

in grade blocks 1-12, 1-3, and 4-6, more students who were perceived as being resistant to authority were very talkative than were students perceived as being over-dependent or accepting of authority.

in grade blocks 1-12 and 7-8, more than 60 percent of the students who play with children their own age were over-dependent or resistant with reference to authority; among students who were accepting of authority, 86 percent played with children their own age.

in grade blocks 1-12 and 7-8, students who were over-dependent with reference to authority and chose younger children as playmates exceeded the percentage of students who accepted or resisted authority and chose younger children as playmates.

in grade blocks 1-12 and 7-8, students who were more likely to choose older students as playmates were students who resisted authority.

Student Behavior With Reference to Leadership

Each student was identified by the classroom teachers as:

(1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead, in his relationship with other students. Seven null hypotheses were formulated to test whether significant relationships exist between student behavior with reference to leadership and each of the following seven variables:

1. School failure;
2. Behavior when faced with a problem;
3. Behavior with reference to authority;
4. Behavior in the classroom;
5. Relationship with other students;
6. Classroom communication pattern; and
7. Choice of playmates.

Hypothesis 10.1

Null Hypothesis:

There is no relationship between student behavior with reference to leadership and incidence of school failure.

Hypothesis 10.1 was tested by comparing the number of students in their association with other students who were perceived by their teachers as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead with the incidence of school failure.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 10.2

Null Hypothesis:

There is no relationship between student behavior with reference to leadership and student behavior when faced with a problem.

Hypothesis 10.2 was tested by comparing the number of students in their association with other students who were perceived by their teachers as (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead with the number of students who when faced with a problem were perceived as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in Tables C.56, D.30, E.24, F.18, and G.34 and show that the variables (student behavior with reference to leadership and student behavior when faced with a

problem) for the grade block 1-12 correlate at the .001 level and for the grade blocks 1-3, 4-6, 7-8, and 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 269 students who were perceived as generally avoiding leadership, 72.5 percent when faced with a problem were perceived as being easily discouraged, 25.3 percent were perceived as being reasonably persistent, and 2.2 percent were perceived as being blindly aggressive. Among 202 students who were perceived as at times either leading or following, 51.0 percent when faced with a problem were perceived as being easily discouraged, 44.6 percent were perceived as being reasonably persistent, and 4.5 percent were perceived as being blindly aggressive. Among 76 students who were perceived as usually seeking to lead, 51.3 percent when faced with a problem were perceived as being easily discouraged, 31.6 percent were perceived as being reasonably persistent, and 17.1 percent were perceived as being blindly aggressive.

The data for the grade block 1-3 reveal that of 80 students who were perceived as generally avoiding leadership, 72.5 percent when faced with a problem were perceived as being easily discouraged, 22.5 percent were perceived as being reasonably persistent, and 5.0 percent were perceived as being blindly aggressive. Among 70 students who were perceived as at times either leading or following, 54.3 percent when faced with a problem were perceived

as being easily discouraged, 38.6 percent were perceived as being reasonably persistent, and 7.1 percent were perceived as being blindly aggressive. Among 29 students who were perceived as usually seeking to lead, 58.6 percent when faced with a problem were perceived as being easily discouraged, 20.7 percent were perceived as being reasonably persistent, and 20.7 percent were perceived as being blindly aggressive.

The data for the grade block 4-6 reveal that of 50 students who were perceived as generally avoiding leadership, 74.0 percent when faced with a problem were perceived as being easily discouraged, 26.0 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 58 students who were perceived as at times either leading or following, 46.6 percent when faced with a problem were perceived as being easily discouraged, 48.3 percent were perceived as being reasonably persistent, and 5.2 percent were perceived as being blindly aggressive. Among 23 students who were perceived as usually seeking to lead, 52.2 percent when faced with a problem were perceived as being easily discouraged, 34.8 percent were perceived as being reasonably persistent, and 13.0 percent were perceived as being blindly aggressive.

The data for the grade block 7-8 reveal that of 69 students who were perceived as generally avoiding leadership, 72.5 percent

when faced with a problem were perceived as being easily discouraged, 26.1 percent were perceived as being reasonably persistent, and 1.4 percent were perceived as being blindly aggressive. Among 38 students who were perceived as at times either leading or following, 57.9 percent when faced with a problem were perceived as being easily discouraged, 39.5 percent were perceived as being reasonably persistent, and 2.6 percent were perceived as being blindly aggressive. Among 15 students who were perceived as usually seeking to lead, 46.7 percent when faced with a problem were perceived as being easily discouraged, 33.3 percent were perceived as being reasonably persistent, and 20.0 percent were perceived as being blindly aggressive.

The data for the grade block 9-12 reveal that of 70 students who were perceived as generally avoiding leadership, 71.4 percent when faced with a problem were perceived as being easily discouraged, 27.1 percent were perceived as being reasonably persistent, and 1.4 percent were perceived as being blindly aggressive. Among 36 students who were perceived as at times either leading or following, 44.4 percent when faced with a problem were perceived as being easily discouraged, 55.6 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 9 students who were perceived as usually seeking to lead, 33.3 percent when faced with a problem were perceived as being

easily discouraged, 55.6 percent were perceived as being reasonably persistent, and 11.1 percent were perceived as being blindly aggressive.

In summary, in each of the grade blocks, 1-12, 1-3, 4-6, and 7-8, more than 46 percent of the students were easily discouraged when faced with a problem whether they were reported as individuals who avoided leadership, who at times led or followed, or who usually sought to lead. Among the students in grade blocks 1-12, 1-3, 4-6, and 7-8 who at times either led or followed, the largest percentage were persistent when faced with a problem. Among the students who usually sought to lead, the largest percentage were blindly aggressive when faced with a problem.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, and 9-12. Comparisons involving grade block 7-8 were not significant.

Hypothesis 10.3

Null Hypothesis:

There is no relationship between student behavior with reference to leadership and student behavior with reference to authority.

Hypothesis 10.3 was tested by comparing the number of students in their relationship with other students who were perceived by their teachers as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead with the number

of students who were perceived as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority.

The statistical results are presented in Tables C.57, D.31, and E.25 and show that the variables (student behavior with reference to leadership and student behavior with reference to authority) for the grade blocks 1-12, 1-3, and 4-6 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 268 students who were perceived as generally avoiding leadership, 18.3 percent were over-dependent with reference to authority, 73.9 percent were accepting with reference to authority, and 7.8 percent were resistant with reference to authority. Among 207 students who were perceived as at times either leading or following, 9.2 percent were over-dependent with reference to authority, 80.7 percent were accepting with reference to authority, and 10.1 percent were resistant with reference to authority. Among 71 students who were perceived as usually seeking to lead, 5.6 percent were over-dependent with reference to authority, 59.2 percent were accepting with reference to authority, and 35.2 percent were resistant with reference to authority.

The data for the grade block 1-3 reveal that of 80 students who were perceived as generally avoiding leadership, 23.8 percent were over-dependent with reference to authority, 71.2 percent were accepting with reference to authority, and 5.0 percent were resistant with reference to authority. Among 74 students who were perceived as at times either leading or following, 6.8 percent were over-dependent with

reference to authority, 85.1 percent were accepting with reference to authority, and 8.1 percent were resistant with reference to authority. Among 26 students who were perceived as usually seeking to lead, 3.8 percent were over-dependent with reference to authority, 65.4 percent were accepting with reference to authority, and 30.8 percent were resistant with reference to authority.

The data for the grade block 4-6 reveal that of 50 students who were perceived as generally avoiding leadership, 20.0 percent were over-dependent with reference to authority, 76.0 percent were accepting with reference to authority, and 4.0 percent were resistant with reference to authority. Among 58 students who were perceived as at times either leading or following, 12.1 percent were over-dependent with reference to authority, 79.3 percent were accepting with reference to authority, and 8.6 percent were resistant with reference to authority. Among 21 students who were perceived as usually seeking to lead, 0 percent were over-dependent with reference to authority, 61.9 percent were accepting with reference to authority, and 38.1 percent were resistant with reference to authority.

In summary, in grade blocks 1-12, 1-3, and 4-6, more than 59 percent of the students were accepting of authority whether they were reported as individuals who avoid leadership, who at times lead/follow, or who usually seek to lead. More than 21 percent of the students who were resistant to authority usually seek to lead.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 4-6. Comparisons involving grade blocks 7-8 and 9-12 were not significant.

Hypothesis 10.4

Null Hypothesis:

There is no relationship between student behavior with reference to leadership and student behavior in the classroom.

Hypothesis 10.4 was tested by comparing the number of students in their relationship with other students who were perceived by their teachers as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead with the number of students who were perceived in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable.

The statistical results are presented in Tables C.58, D.32, and G.35 and show that the variables (student behavior with reference to leadership and student behavior in the classroom) for the grade blocks 1-12, 1-3, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 264 students who were perceived as generally avoiding leadership, 33.7 percent were perceived as being apathetic in the classroom, 45.8 percent were perceived as being emotionally calm, and 20.5 percent were perceived as being excitable. Among 206 students who were perceived as at times either leading or following, 11.2 percent were perceived as being apathetic in the classroom, 55.3 percent were perceived as

being emotionally calm, and 33.5 percent were perceived as being excitable. Among 75 students who were perceived as usually seeking to lead, 14.7 percent were perceived as being apathetic in the classroom, 33.3 percent were perceived as being emotionally calm, and 52.0 percent were perceived as being excitable.

The data for the grade block 1-3 reveal that of 81 students who were perceived as generally avoiding leadership, 32.1 percent were perceived as being apathetic in the classroom, 46.9 percent were perceived as being emotionally calm, and 21.0 percent were perceived as being excitable. Among 72 students who were perceived as at times either leading or following, 9.7 percent were perceived as being apathetic in the classroom, 54.2 percent were perceived as being emotionally calm, and 36.1 percent were perceived as being excitable. Among 30 students who were perceived as usually seeking to lead, 16.7 percent were perceived as being apathetic in the classroom, 23.3 percent were perceived as being emotionally calm, and 60.0 percent were perceived as being excitable.

The data for the grade block 9-12 reveal that of 70 students who were perceived as generally avoiding leadership, 38.6 percent were perceived as being apathetic in the classroom, 44.3 percent were perceived as being emotionally calm, and 17.1 percent were perceived as being excitable. Among 36 students who were perceived as at times either leading or following,

11.1 percent were perceived as being apathetic in the classroom, 77.8 percent were perceived as being emotionally calm, and 11.1 percent were perceived as being excitable. Among 9 students who were perceived as usually seeking to lead, 0 percent were perceived as being apathetic in the classroom, 55.6 percent were perceived as being emotionally calm, and 44.4 percent were perceived as being excitable.

In summary, in grade blocks 1-12, 1-3, and 9-12, more than 32 percent of the students who generally avoid leadership were apathetic in the classroom; whereas of the students perceived as either leading/following or usually seeking to lead, less than 18 percent were apathetic. In grade blocks 1-12, 1-3, and 9-12, among students who sometimes lead or follow the percentage who were perceived as being emotionally calm ranged from 54 to 78. Among students who generally avoid leadership, the percentage who were perceived as being emotionally calm ranged from 44 to 46, whereas among students who usually seek to lead, the percentage as being emotionally calm ranged from 23 to 33.

In grade blocks 1-12, 1-3, and 9-12, among students who usually seek to lead, the percentage who were perceived as being excitable ranged from 52 to 60.

In grade block 9-12, the number of students who sometimes lead/follow and were emotionally calm exceeded by a margin of 34

percent the number of students in the other grade blocks who sometimes lead/follow and were emotionally calm.

In all grade blocks, of the students who usually sought to lead, more were perceived as being excitable in the classroom than being apathetic or emotionally calm.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 9-12. Comparisons involving grade blocks 4-6 and 7-8 were not significant.

Hypothesis 10.5

Null Hypothesis:

There is no relationship between student behavior with reference to leadership and student relationship with other students.

Hypothesis 10.5 was tested by comparing the number of students in their relationship with other students who were perceived by their teachers as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead with the number of students who were perceived in their association with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.59, D.33, E.26, F.19, and G.36 and show that the variables (student behavior with reference to leadership and student relationship with other students) for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 247 students who were perceived as generally avoiding leadership, 44.9 percent were shy and bashful in their relationship with other students, 47.0 percent were responsive in their relationship with other students, and 8.1 percent were bold and aggressive in their relationship with other students. Among 203 students who were perceived as at times either leading or following, 8.9 percent were shy and bashful in their relationship with other students, 74.9 percent were responsive in their relationship with other students, and 16.3 percent were bold and aggressive in their relationship with other students. Among 77 students who were perceived as usually seeking to lead, 3.9 percent were shy and bashful in their relationship with other students, 35.1 percent were responsive in their relationship with other students, and 61.0 percent were bold and aggressive in their relationship with other students.

The data for the grade block 1-3 reveal that of 73 students who were perceived as generally avoiding leadership, 39.7 percent were shy and bashful in their relationship with other students, 52.1 percent were responsive in their relationship with other students, and 8.2 percent were bold and aggressive in their relationship with other students. Among 68 students who were perceived as at times either leading or following, 7.4 percent were shy and bashful in their relationship

with other students, 73.5 percent were responsive in their relationship with other students, and 19.1 percent were bold and aggressive in their relationship with other students. Among 30 students who were perceived as usually seeking to lead, 3.3 percent were shy and bashful in their relationship with other students, 26.7 percent were responsive in their relationship with other students, and 70.0 percent were bold and aggressive in their relationship with other students.

The data for the grade block 4-6 reveal that of 47 students who were perceived as generally avoiding leadership, 36.3 percent were shy and bashful in their relationship with other students, 53.2 percent were responsive in their relationship with other students, and 10.6 percent were bold and aggressive in their relationship with other students. Among 63 students who were perceived as at times either leading or following, 12.7 percent were shy and bashful in their relationship with other students, 71.4 percent were responsive in their relationship with other students, and 15.9 percent were bold and aggressive in their relationship with other students. Among 24 students who were identified as usually seeking to lead, 4.2 percent were shy and bashful, 33.3 percent were responsive in their relationship with other students, and 62.5 percent were bold and aggressive in their relationship with other students.

The data for the grade block 7-8 reveal that of 64 students who were perceived as generally avoiding leadership, 51.6 percent were shy and bashful in their relationship with other students, 39.1 percent were responsive in their relationship with other students, and 9.4 percent were bold and aggressive in their relationship with other students. Among 37 students who were perceived as at times either leading or following, 2.7 percent were shy and bashful in their relationship with other students, 75.7 percent were responsive in their relationship with other students, and 21.6 percent were bold and aggressive in their relationship with other students. Among 16 students who were perceived as usually seeking to lead, 6.3 percent were shy and bashful in their relationship with other students, 37.5 percent were responsive in their relationship with other students, and 56.3 percent were bold and aggressive in their relationship with other students.

The data for the grade block 9-12 reveal that of 63 students who were perceived as generally avoiding leadership, 50.8 percent were shy and bashful in their relationship with other students, 44.4 percent were responsive in their relationship with other students, and 4.8 percent were bold and aggressive in their relationship with other students. Among 35 students who were perceived as at times either leading or following, 11.4 percent were shy and bashful in their

relationship with other students, 82.9 percent were responsive in their relationship with other students, and 5.7 percent were bold and aggressive in their relationship with other students. Among 7 students who were perceived as usually seeking to lead, 0 percent were shy and bashful in their relationship with other students, 71.4 percent were responsive in their relationship with other students, and 28.6 percent were bold and aggressive in their relationship with other students.

In summary, among students who generally avoid leadership, 47.0 percent in grade block 1-12, 52.1 percent in grade block 1-3, 53.2 percent in grade block 4-6, 39.1 percent in grade block 7-8, and 44.4 percent in grade block 9-12 were responsive in their relationship to other students. Among students who were shy and bashful in their relationship with other students, 40 to 50 percent were reported to avoid leadership, the higher percentage occurring among students in the grade blocks 7-8 and 9-12. In the grade blocks 1-12, 1-3, 4-6, and 9-12, among students who usually seek to lead, more than 56 percent were bold and aggressive, with the exception of grade block 9-12 where 28 percent of the students were reported bold and aggressive.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 10.6

Null Hypothesis:

There is no relationship between student behavior with reference to leadership and classroom communication pattern.

Hypothesis 10.6 was tested by comparing the number of students in their relationship with other students who were perceived by their teachers as: (1) generally avoiding leadership, (2) at times either leading or following, or (3) usually seeking to lead with the number of students who were perceived as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Tables C.60, D.34, E.27, F.20, and G.37 and show that the variables (student behavior with reference to leadership and classroom communication pattern) for the grade blocks 1-12, 1-3, 4-6, and 9-12 correlate at the .001 level and for the grade block 7-8 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 270 students who were perceived as generally avoiding leadership, 25.9 percent were perceived as being quiet in their communication pattern, 59.3 percent were normally communicative in their communication pattern, and 14.8 percent were very talkative in their communication pattern. Among 212 students who were perceived as at times either leading or following, 47.2 percent were perceived as being quiet in their communication pattern, 28.3 percent were normally communicative in their communication pattern, and 24.5 percent were very talkative in their communication pattern.

Among 72 students who were perceived as usually seeking to lead, 40.3 percent were perceived as being quiet in their communication pattern, 9.7 percent were normally communicative, and 50 percent were very talkative in their communication pattern.

The data for the grade block 1-3 reveal that of 82 students who were perceived as generally avoiding leadership, 25.6 percent were perceived as being quiet in their communication pattern, 50.0 percent were normally communicative in their communication pattern, and 24.4 percent were very talkative in their communication pattern. Among 73 students who were perceived as at times either leading or following, 49.3 percent were perceived as being quiet in their communication pattern, 27.4 percent were normally communicative in their communication pattern, and 23.3 percent were very talkative in their communication pattern. Among 30 students who were perceived as usually seeking to lead, 43.3 percent were perceived as being quiet in their communication pattern, 13.3 percent were normally communicative in their communication pattern, and 43.3 percent were very talkative in their communication pattern.

The data for the grade block 4-6 reveal that of 49 students who were perceived as generally avoiding leadership, 28.6 percent were perceived as being quiet in their communication pattern, 57.1 percent were normally communicative in their communication pattern, and 14.3 percent were very talkative in their communication pattern. Among 63 students who were perceived as at times either leading or following, 49.2 percent were perceived as being quiet in their

communication pattern, 17.5 percent were normally communicative in their communication pattern, and 33.3 percent were very talkative in their communication pattern. Among 21 students who were perceived as usually seeking to lead, 33.3 percent were perceived as being quiet in their communication pattern, 4.8 percent were normally communicative in their communication pattern, and 61.9 percent were very talkative in their communication pattern.

The data for the grade block 7-8 reveal that of 68 students who were perceived as generally avoiding leadership, 32.4 percent were perceived as being quiet in their communication pattern, 60.3 percent were normally communicative in their communication pattern, and 7.4 percent were very talkative in their communication pattern. Among 39 students who were perceived as at times either leading or following, 35.9 percent were perceived as being quiet in their communication pattern, 35.9 percent were normally communicative in their communication pattern, and 28.2 percent were very talkative in their communication pattern. Among 13 students who were perceived as usually seeking to lead, 38.5 percent were perceived as being quiet in their communication pattern, 15.4 percent were normally communicative in their communication pattern, and 46.2 percent were very talkative in their communication pattern.

The data for the grade block 9-12 reveal that of 71 students who were perceived as generally avoiding leadership, 18.3 percent were perceived as being quiet in their communication pattern, 70.4 percent were normally communicative in their

communication pattern, and 11.3 percent were very talkative in their communication pattern. Among 37 students who were perceived as at times either leading or following, 51.4 percent were perceived as being quiet in their communication pattern, 40.5 percent were normally communicative in their communication pattern, and 8.1 percent were very talkative in their communication pattern. Among 8 students who were perceived as usually seeking to lead, 50.0 percent were perceived as being quiet in their communication pattern, 0 percent were normally communicative in their communication pattern, and 50.0 percent were very talkative in their communication pattern.

In summary, in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among students who generally avoid leadership, the percentage who were normally communicative ranged from 50 to 70. In each of the grade blocks, among students who sometimes lead/follow, the percentage who were quiet in their communication pattern exceeded the percentage who were reported normally communicative or very talkative.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12.

Hypothesis 10.7

Null Hypothesis:

There is no relationship between student behavior with reference to leadership and choice of playmates.

Hypothesis 10.7 was tested by comparing the number of students in their relationship with other students who were perceived by their teachers as: (1) generally avoiding leadership, (2) at times either

leading or following, or (3) usually seeking to lead with the number of students who were perceived as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

The statistical results are presented in Tables C.61 and F.21 and show that the variables (student behavior with reference to leadership and choice of playmates) for the grade block 1-12 correlate at the .001 level and for the grade block 7-8 correlate at the .01 level.

The data for grade block 1-12 reveal that of 212 students who were perceived as generally avoiding leadership, 14.6 percent were perceived as generally associating with younger children, 83.5 percent were perceived as generally associating with children their own age, and 1.9 percent were perceived as generally associating with older children. Among 200 students who were perceived as at times either leading or following, 7.0 percent were perceived as generally associating with younger children, 88.0 percent were perceived as generally associating with children their own age, and 5.0 percent were perceived as generally associating with older children. Among 67 students who were perceived as usually seeking to lead, 19.4 percent were perceived as generally associating with younger children, 68.7 percent were perceived as generally associating with children their own age, and 11.9 percent were perceived as generally associating with older children.

The data for grade block 7-8 reveal that of 50 students who were perceived as generally avoiding leadership, 12.0 percent

were perceived as generally associating with younger children, 86.0 percent were perceived as generally associating with children their own age, and 2.0 percent were perceived as associating with older children. Among 37 students who were perceived as at times either leading or following, 13.5 percent were perceived as generally associating with younger children, 81.1 percent were perceived as generally associating with children their own age, and 5.4 percent were perceived as generally associating with older children. Among 11 students who were perceived as usually seeking to lead, 27.3 percent were perceived as generally associating with younger children, 45.5 percent were perceived as generally associating with children their own age, and 27.3 percent were perceived as generally associating with older children.

In summary, in each of the grade blocks 1-12 and 7-8, more than 80 percent of the students who avoid leadership or at times either lead/follow play with children their own age.

The null hypothesis was, therefore, rejected for the grade blocks 1-12 and 7-8. Comparisons involving grade blocks 1-3, 4-6, and 9-12 were not significant.

Summary

A summarization of the relationship between student behavior with reference to leadership and student school conduct reveals that:

- in grade blocks 1-12, 1-3, 4-6, and 7-8, more than 46 percent of the students were easily discouraged when faced with a problem whether they were reported as individuals who avoided leadership, who at times led or followed, or who usually sought to lead.

- among students in grade block 9-12, who at times either led or followed, the largest percentage were persistent when faced with a problem.
- in all grade blocks, the largest percentage of students that were blindly aggressive when faced with a problem were in the group that usually sought to lead rather than in the group that generally avoided leadership or at times led or followed.
- in grade blocks 1-12, 1-3, and 4-6, more than 59 percent of the students were accepting of authority whether they were reported as individuals who avoided leadership, who at times led/followed, or who usually sought to lead.
- more than 31 percent of the students who were resistant to authority usually sought to lead.
- in grade blocks 1-12, 1-3, and 9-12, more than 32 percent of the students who generally avoided leadership were apathetic in the classroom; whereas of the students perceived as either leading/following or usually seeking to lead, less than 18 percent were apathetic.
- in grade blocks 1-12, 1-3, and 9-12, among students who sometimes led or followed, the percentage who were perceived as being emotionally calm ranged from 54 to 78. Among students who generally avoided leadership, the percentage who were perceived as being emotionally calm ranged from 44 to 46; whereas among students who usually sought to lead, the percentage as being emotionally calm ranged from 23 to 33.
- in grade blocks 1-12, 1-3, and 9-12, among students who usually sought to lead, the percentage who were perceived as being excitable ranged from 52 to 60.
- in grade block 9-12, the number of students who sometimes led/followed and were emotionally calm exceeded by a margin of 34 percent the number of students in the other grade blocks who sometimes led/followed and were emotionally calm.
- in all grade blocks, of the students who usually sought to lead, more were perceived as being excitable in the classroom than being apathetic or emotionally calm.
- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among students who generally avoided leadership, the percentage of students responsive in their relationship with other students ranged from 39 to 53.

- among students who were perceived as generally avoiding leadership, 40 to 50 percent were shy and bashful in their relationship with other students, the higher the percentage occurring among students in grade blocks 7-8 and 9-12.
- in grade blocks 1-12, 1-3, 4-6, and 9-12, among students who usually sought to lead, more than 56 percent were bold and aggressive, with the exception of grade block 9-12 where 28 percent of the students were reported bold and aggressive.
- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among students who generally avoided leadership, the percentage who were normally communicative ranged from 50 to 70.
- in each of the grade blocks, among students who sometimes led/followed, the percentage who were quiet in their communication pattern exceeded the percentage who were reported normally communicative or very talkative.
- in grade blocks 1-12 and 7-8, more than 8 percent of the students who avoided leadership or at times either led/followed played with children their own age.

Behavior in the Classroom

Each student was identified by the classroom teacher as:

(1) being apathetic, (2) being emotionally calm, or (3) being excitable.

Six null hypotheses were formulated in order to test whether significant relationships exist between student behavior in the classroom and each of the following six variables:

1. School failure;
2. Behavior when faced with a problem;
3. Behavior with reference to authority;
4. Relationship with other students;
5. Classroom communication pattern; and
6. Choice of playmates.

Hypothesis 11.1

Null Hypothesis:

There is no relationship between student behavior in the classroom and incidence of school failure.

Hypothesis 11.1 was tested by comparing the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable with the incidence of school failure. None of the findings was significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 11.2

Null Hypothesis:

There is no relationship between student behavior in the classroom and student behavior when faced with a problem.

Hypothesis 11.2 was tested by comparing the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable with the number of students who when faced with a problem were identified as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in Tables C.62, D.35, F.22, and G.38 and show that the variables (student behavior in the classroom and student behavior when faced with a problem) for the grade blocks 1-12, 1-3, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 120 students who were perceived as being apathetic in the classroom, 84.2 percent

when faced with a problem were perceived as being easily discouraged, 10.8 percent were perceived as being reasonably persistent, and 5.0 percent were perceived as being blindly aggressive. Among 250 students who were perceived as being emotionally calm in the classroom, 45.6 percent when faced with a problem were perceived as being easily discouraged, 51.2 percent were perceived as being reasonably persistent, and 3.2 percent were perceived as being blindly aggressive. Among 161 students who were perceived as being excitable in the classroom, 68.9 percent when faced with a problem were perceived as being easily discouraged, 23.0 percent were perceived as being reasonably persistent, and 8.1 percent were perceived as being blindly aggressive.

The data for the grade block 1-3 reveal that of 36 students who were perceived as being apathetic in the classroom, 88.9 percent when faced with a problem were perceived as being easily discouraged, 5.6 percent were perceived as being reasonably persistent, and 5.6 percent were perceived as being blindly aggressive. Among 79 students who were perceived as being emotionally calm in the classroom, 51.9 percent when faced with a problem were perceived as being easily discouraged, 40.5 percent were perceived as being reasonably persistent, and 7.6 percent were perceived as being blindly aggressive. Among 61 students who were perceived as being excitable in the classroom, 65.6 percent when faced with a problem were perceived as being easily discouraged, 23.0 percent were perceived as being reasonably persistent, and 11.5 percent were perceived as being blindly aggressive.

The data for the grade block 7-8 reveal that of 30 students who were perceived as being apathetic in the classroom, 83.3 percent when faced with a problem were perceived as being easily discouraged, 10.0 percent were perceived as being reasonably persistent, and 6.7 percent were perceived as being blindly aggressive. Among 50 students who were perceived as being emotionally calm in the classroom, 46.0 percent when faced with a problem were perceived as being easily discouraged, 52.0 percent were perceived as being reasonably persistent, and 2.0 percent were perceived as being blindly aggressive. Among 31 students who were perceived as being excitable in the classroom, 74.2 percent when faced with a problem were perceived as being easily discouraged, 19.4 percent were perceived as being reasonably persistent, and 6.5 percent were perceived as being blindly aggressive.

The data for the grade block 9-12 reveal that of 31 students who were perceived as being apathetic in the classroom, 87.1 percent when faced with a problem were perceived as being easily discouraged, 9.7 percent were perceived as being reasonably persistent, and 3.2 percent were perceived as being blindly aggressive. Among 68 student who were perceived as being emotionally calm in the classroom, 39.7 percent when faced with a problem were perceived as being easily discouraged, 60.3 percent were perceived as being reasonably persistent, and 0 percent were perceived as being blindly aggressive. Among 21 students who were perceived

as being excitable in the classroom, 76.2 percent when faced with a problem were perceived as being easily discouraged, 19.0 percent were perceived as being reasonably persistent, and 4.8 percent were perceived as being blindly aggressive.

In summary, in grade blocks 1-12, 1-3, 7-8, and 9-12, more than 73 percent of the students perceived as being apathetic in the classroom were easily discouraged when faced with a problem. In grade blocks 1-12, 1-3, 7-8, and 9-12, more than 63 percent of the students perceived as being emotionally calm in the classroom were reasonably persistent when faced with a problem. In grade blocks 1-12, 1-3, 7-8, and 9-12, more than 65 percent of the students who were excitable in the classroom were easily discouraged when faced with a problem.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 7-8, and 9-12. Comparisons involving grade block 4-6 were not significant

Hypothesis 11.3

Null Hypothesis:

There is no relationship between student behavior in the classroom and student behavior with reference to authority.

Hypothesis 11.3 was tested by comparing the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable with the number of

students who were identified as: (1) being over-dependent with reference to authority, (2) being accepting with reference to authority, or (3) being resistant with reference to authority.

The statistical results are presented in Tables C.63, D.36, E.28, and G.39 and show that the variables (student behavior in the classroom and student behavior with reference to authority) for the grade blocks 1-12 and 9-12 correlate at the .001 level and for grade blocks 1-3 and 4-6 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 113 students who were perceived in the classroom as being apathetic, 17.7 percent were perceived as being over-dependent with reference to authority, 64.6 percent were perceived as being accepting with reference to authority, and 17.7 percent were perceived as being resistant with reference to authority. Among 266 students who were perceived in the classroom as being emotionally calm, 8.3 percent were perceived as being over-dependent with reference to authority, 88.3 percent were perceived as being accepting with reference to authority, and 3.4 percent were perceived as being resistant with reference to authority. Among 157 students who were perceived in the classroom as being excitable, 13.4 percent were perceived as being over-dependent with reference to authority, 59.2 percent were perceived as being accepting with reference to authority, and 27.4 percent were perceived as being resistant with reference to authority.

The data for the grade block 9-12 reveal that of 30 students who were perceived in the classroom as being apathetic, 26.7 percent were perceived as being over-dependent with reference to authority, 53.3 percent were perceived as being accepting with reference to authority, and 20.0 percent were perceived as being resistant with reference to authority. Among 70 students who were perceived in the classroom as being emotionally calm, 2.9 percent were perceived as being over-dependent with reference to authority, 95.7 percent were perceived as being accepting with reference to authority, and 1.4 percent were perceived as being resistant with reference to authority. Among 21 students who were perceived in the classroom as being excitable, 19.0 percent were perceived as being over-dependent with reference to authority, 38.1 percent were perceived as being accepting with reference to authority, and 42.9 percent were perceived as being resistant with reference to authority.

The data for the grade block 1-3 reveal that of 33 students who were perceived in the classroom as being apathetic, 21.2 percent were perceived as being over-dependent with reference to authority, 69.7 percent were perceived as being accepting with reference to authority, and 9.1 percent were perceived as being resistant with reference to authority. Among 83 students who were perceived in the classroom as being emotionally calm,

9.6 percent were perceived as being over-dependent with reference to authority, 85.5 percent were perceived as being accepting with reference to authority, and 4.8 percent were perceived as being resistant with reference to authority. Among 58 students who were perceived in the classroom as being excitable, 15.5 percent were perceived as being over-dependent with reference to authority, 63.8 percent were perceived as being accepting with reference to authority, and 20.7 percent were perceived as being resistant with reference to authority.

The data for the grade block 4-6 reveal that of 15 students who were perceived in the classroom as being apathetic, 20.0 percent were perceived as being over-dependent with reference to authority, 40.0 percent were perceived as being accepting with reference to authority, and 40.0 percent were perceived as being resistant with reference to authority. Among 94 students who were perceived in the classroom as being emotionally calm, 14.9 percent were perceived as being over-dependent with reference to authority, 54.3 percent were perceived as being accepting with reference to authority, and 30.9 percent were perceived as being resistant with reference to authority. Among 18 students who were perceived in the classroom as being excitable, 22.2 percent were perceived as being over-dependent with reference to authority, 5.6 percent were perceived as being accepting with reference to authority, and 72.2 percent were perceived as being resistant with reference to authority.

In summary, in each of the grade blocks, among the students who were emotionally calm, more than 66 percent were responsive in their relationship with other students, while among the students who were either apathetic or excitable, less than 50 percent were responsive in their relationship with other students. Among students who were excitable, more than 30 percent were bold and aggressive in their relationship with other students.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, and 9-12. Comparisons involving grade block 7-8 were not significant.

Hypothesis 11.4

Null Hypothesis:

There is no relationship between student behavior in the classroom and student relationship with other students.

Hypothesis 11.4 was tested by comparing the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable with the number of students who were identified in their relationship with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.64, D.37, E.29, and G.40 and show that the variables (student behavior in the classroom and student relationship with other students) for grade blocks 1-12, 1-3, 4-6, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 102 students who were perceived in the classroom as being apathetic, 38.2 percent

were shy and bashful in their relationship with other students, 47.1 percent were responsive in their relationship with other students, and 14.7 percent were bold and aggressive in their relationship with other students. Among 252 students who were perceived in the classroom as being emotionally calm, 22.6 percent were shy and bashful in their relationship with other students, 69.4 percent were responsive in their relationship with other students, and 7.9 percent were bold and aggressive in their relationship with other students. Among 153 students who were perceived in the classroom as being excitable, 15.0 percent were shy and bashful in their relationship with other students, 45.8 percent were responsive in their relationship with other students, and 39.2 percent were bold and aggressive in their relationship with other students.

The data for the grade block 1-3 reveal that of 29 students who were perceived in the classroom as being apathetic, 31.0 percent were shy and bashful in their relationship with other students, 44.8 percent were responsive in their relationship with other students, and 24.1 percent were bold and aggressive in their relationship with other students. Among 77 students who were perceived in the classroom as being emotionally calm, 22.1 percent were shy and bashful in their relationship with other students, 66.2 percent were responsive in their relationship with other students, and 11.7 percent were bold and aggressive in their relationship with other students. Among 59 students who were perceived in the classroom as being excitable, 11.9 percent were shy and bashful in their relationship with other

students, 47.5 percent were responsive in their relationship with other students, and 40.7 percent were bold and aggressive in their relationship with other students.

The data for the grade block 4-6 reveal that of 19 students who were perceived in the classroom as being apathetic, 31.6 percent were shy and bashful in their relationship with other students, 57.9 percent were responsive in their relationship with other students, and 10.5 percent were bold and aggressive in their relationship with other students. Among 59 students who were perceived in the classroom as being emotionally calm, 13.6 percent were shy and bashful in their relationship with other students, 76.3 percent were responsive in their relationship with other students, and 10.2 percent were bold and aggressive in their relationship with other students. Among 46 students who were perceived in the classroom as being excitable, 15.2 percent were shy and bashful in their relationship with other students, 43.5 percent were responsive in their relationship with other students, and 41.3 percent were bold and aggressive in their relationship with other students.

The data for the grade block 9-12 reveal that of 26 students who were perceived in the classroom as being apathetic, 42.3 percent were shy and bashful in their relationship with other students, 53.8 percent were responsive in their relationship with other students, and 3.8 percent were bold and aggressive in their relationship with other students. Among 64 students who were perceived in the classroom as being emotionally calm, 28.1 percent were shy and bashful in their

relationship with other students, 70.3 percent were responsive in their relationship with other students, and 1.6 percent were bold and aggressive in their relationship with other students. Among 20 students who were identified in the classroom as being excitable, 30.0 percent were shy and bashful in their relationship with other students, 40.0 percent were responsive in their relationship with other students, and 30.0 percent were bold and aggressive in their relationship with other students.

In summary, in each of the grade blocks, among the students who were emotionally calm, more than 66 percent were responsive in their relationship with other students. Among students who were excitable, more than 30 percent were bold and aggressive in their relationship with other students.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, and 9-12. Comparisons involving grade block 7-8 were not significant.

Hypothesis 11.5

Null Hypothesis:

There is no relationship between student behavior in the classroom and classroom communication pattern.

Hypothesis 11.5 was tested by comparing the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable with the number of students who were identified as: (1) being quiet, (2) being normally communicative, or (3) being very talkative.

The statistical results are presented in Tables C.65, D.38, E.30, F.23, and G.41 and show that the variables (student behavior in the classroom and classroom communication pattern) for the grade blocks 1-12, 1-3, 7-8, and 9-12 correlate at the .001 level and for the grade block 4-6 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 117 students who were perceived in the classroom as being apathetic, 23.1 percent were perceived as being quiet in their communication pattern, 68.4 percent as being normally communicative in their communication pattern, and 8.5 percent as being very talkative in their communication pattern. Among 262 students who were perceived in the classroom as being emotionally calm, 46.6 percent were perceived as being quiet in their communication pattern, 40.8 percent as being normally communicative in their communication pattern, and 12.6 percent as being very talkative in their communication pattern. Among 161 students who were perceived in the classroom as being excitable, 32.9 percent were perceived as being quiet in their communication pattern, 14.3 percent as being normally communicative in their communication pattern, and 52.8 percent as being very talkative in their communication pattern.

The data for the grade block 1-3 reveal that of 37 students who were perceived in the classroom as being apathetic, 32.4 percent were perceived as being quiet in their communication

pattern, 59.5 percent as being normally communicative in their communication pattern, and 8.1 percent as being very talkative in their communication pattern. Among 80 students who were perceived in the classroom as being emotionally calm, 48.7 percent were perceived as being quiet in their communication pattern, 37.5 percent as being normally communicative in their communication pattern, and 13.7 percent as being very talkative in their communication pattern. Among 62 students who were perceived in the classroom as being excitable, 29.0 percent were perceived as being quiet in their communication pattern, 14.5 percent as being normally communicative in their communication pattern, and 56.5 percent as being very talkative in their communication pattern.

The data for the grade block 7-8 reveal that of 30 students who were perceived in the classroom as being apathetic, 23.3 percent were perceived as being quiet in their communication pattern, 73.3 percent as being normally communicative in their communication pattern, and 3.3 percent as being very talkative in their communication pattern. Among 53 students who were perceived in the classroom as being emotionally calm, 35.8 percent were perceived as being quiet in their communication pattern, 50.9 percent as being normally communicative in their communication pattern, and 13.2 percent as being very talkative in their communication pattern. Among 27 students who were perceived in

the classroom as being excitable, 40.7 percent were perceived as being quiet in their communication pattern, 11.1 percent as being normally communicative in their communication pattern, and 48.1 percent as being very talkative in their communication pattern.

The data for the grade block 9-12 reveal that of 31 students who were perceived in the classroom as being apathetic, 6.5 percent were perceived as being quiet in their communication pattern, 87.1 percent as being normally communicative in their communication pattern, and 6.5 percent as being very talkative in their communication pattern. Among 72 students who were perceived in the classroom as being emotionally calm, 48.6 percent were perceived as being quiet in their communication pattern, 45.8 percent as being normally communicative in their communication pattern, and 5.6 percent as being very talkative in their communication pattern. Among 21 students who were perceived in the classroom as being excitable, 23.8 percent were perceived as being quiet in the communication pattern, 19.0 percent as being normally communicative in their communication pattern, and 57.1 percent as being very talkative in their communication pattern.

The data for the grade block 4-6 reveal that of 19 students who were perceived in the classroom as being apathetic, 31.6 percent were perceived as being quiet in their communication pattern, 47.4 percent as being normally communicative in their communication pattern, and 21.1 percent as being very talkative

in their communication pattern. Among 57 students who were perceived in the classroom as being emotionally calm, 50.9 percent were perceived as being quiet in their communication pattern, 29.8 percent as being normally communicative in their communication pattern, and 19.3 percent as being very talkative in their communication pattern. Among 51 students who were perceived in the classroom as being excitable, 37.3 percent were perceived as being quiet in their communication pattern, 13.7 percent as being normally communicative in their communication pattern, and 49.0 percent as being very talkative in their communication pattern.

In summary, in each of the grade blocks, among the students who were either apathetic, emotionally calm, or excitable, the percentage of students who were normally communicative was highest among students who were apathetic in the classroom; whereas the percentage of students who were very talkative was highest among students who were perceived as being excitable in the classroom.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, and 9-12.

Hypothesis 11.6

Null Hypothesis:

There is no relationship between student behavior in the classroom and choice of playmates.

Hypothesis 11.6 was tested by comparing the number of students who were identified in the classroom as: (1) being apathetic, (2) being emotionally calm, or (3) being excitable with the number of students who were identified as generally associating with: (1) younger children, (2) children their own age, or (3) older children.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Summary

A summarization of the relationship between student behavior in the classroom and student school conduct reveals that:

- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, more than 73 percent of the students perceived as being apathetic in the classroom were easily discouraged when faced with a problem.
- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, more than 40 percent of the students perceived as being emotionally calm in the classroom were reasonably persistent when faced with a problem.
- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, more than 65 percent of the students who were excitable in the classroom were easily discouraged when faced with a problem.
- in grade blocks 1-12, 1-3, and 9-12, more than 50 percent of the students were accepting of authority regardless of whether they were perceived as apathetic, emotionally calm, or excitable in the classroom. The percentage of students

who were accepting of authority was highest among students who were emotionally calm in the classroom, whereas the percentage of students who were resistant to authority was highest among students who were excitable in the classroom.

- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, among students who were emotionally calm, more than 66 percent were responsive in their relationship with other students.
- in grade blocks 1-12 and 1-3, among students who were either apathetic or excitable, less than 50 percent were responsive in their relationship with other students.
- among students who were excitable, more than 30 percent were bold and aggressive in their relationship with other students.
- in grade blocks 1-12, 1-3, 7-8, and 9-12, among students who were either apathetic, emotionally calm, or excitable, the percentage of students who were normally communicative was highest among students who were apathetic in the classroom; whereas the percentage of students who were very talkative was highest among students who were perceived as being excitable in the classroom.

Relationship With Other Students

Each student was identified by the classroom teacher as:

- (1) being shy and bashful in his relationship with other students,
- (2) being responsive in his relationship with other students, or
- (3) being bold and aggressive in his relationship with other students.

One hypothesis was formulated in order to test whether significant relationships exist between student relationship with other students and the following variable:

1. School failure.

Hypothesis 12.1

Null Hypothesis:

There is no relationship between student relationship with other students and incidence of school failure.

Hypothesis 12.1 was tested by comparing the number of students who were identified in their relationship with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Classroom Communication Pattern

Each student was identified by the classroom teachers as (1) being quiet, (2) being normally communicative, or (3) being very talkative in the classroom. Four null hypotheses were formulated in order to test whether significant relationships exist between student classroom communication pattern and the following four variables:

1. School failure;
2. Behavior when faced with a problem;
3. Relationship with other students; and
4. Choice of playmates.

Hypothesis 13.1

Null Hypothesis:

There is no relationship between classroom communication pattern and incidence of school failure.

Hypothesis 13.1 was tested by comparing the number of students who were identified as: (1) being quiet, (2) being

normally communicative, or (3) being very talkative with incidence of school failure.

None of the findings were significant at the .01 level, and the null hypothesis was, therefore, not rejected.

Hypothesis 13.2

Null Hypothesis:

There is no relationship between classroom communication pattern and student behavior when faced with a problem.

Hypothesis 13.2 was tested by comparing the number of students who were identified as: (1) being quiet, (2) being normally communicative, or (3) being very talkative with the number of students who when faced with a problem were identified as: (1) being easily discouraged, (2) being reasonably persistent, or (3) being blindly aggressive.

The statistical results are presented in Tables C.66, D.39, and G.42 and show that the variables (classroom communication pattern and behavior when faced with a problem) for the grade blocks 1-12 and 1-3 correlate at the .001 level and for the grade block 9-12 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 201 students who were perceived as being quiet in their communication pattern, 48.3 percent, when faced with a problem, were perceived as being easily discouraged, 47.3 percent as being reasonably persistent, and 4.5 percent as being blindly aggressive. Among 214 students who were perceived as being normally communicative, 69.6 percent, when faced

with a problem, were perceived as being easily discouraged, 29.4 percent as being reasonably persistent, and 0.9 percent as being blindly aggressive. Among 126 students who were perceived as being very talkative in their communication pattern, 65.9 percent, when faced with a problem, were perceived as being easily discouraged, 23.8 percent as being reasonably persistent, and 10.3 percent as being blindly aggressive.

The data for the grade block 1-3 reveal that of 67 students who were perceived as being quiet in their communication pattern, 50.7 percent, when faced with a problem, were perceived as being easily discouraged, 41.8 percent as being reasonably persistent, and 7.5 percent as being blindly aggressive. Among 61 students who were perceived as being normally communicative, 72.1 percent, when faced with a problem, were perceived as being easily discouraged, 26.2 percent as being reasonably persistent, and 1.6 percent as being blindly aggressive. Among 48 students who were perceived as being very talkative in their communication pattern, 70.8 percent, when faced with a problem, were perceived as being easily discouraged, 12.5 percent as being reasonably persistent, and 16.7 percent as being blindly aggressive.

The data for the grade block 9-12 reveal that of 43 students who were perceived as being quiet in their communication pattern, 37.2 percent, when faced with a problem, were perceived as being easily discouraged, 62.8 percent as being reasonably persistent, and 0 percent as being blindly aggressive. Among 62 students who

were perceived as being normally communicative, 61.3 percent, when faced with a problem, were perceived as being easily discouraged, 37.1 percent as being reasonably persistent, and 1.6 percent as being blindly aggressive. Among 17 students who were perceived as being very talkative in their communication pattern, 76.5 percent, when faced with a problem, were perceived as being easily discouraged, 17.6 percent as being reasonably persistent, and 5.9 percent as being blindly aggressive.

In summary, in grade blocks 1-12, 1-3, and 9-12, among the students who were either normally communicative or very talkative, more than 60 percent were easily discouraged when faced with a problem, whereas among the students who were quiet, the percentage who were easily discouraged when faced with a problem ranged from 37 to 50.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 9-12. Comparisons involving grade blocks 4-6 and 7-8 were not significant.

Hypothesis 13.3

Null Hypothesis:

There is no relationship between classroom communication pattern and student relationship with other students.

Hypothesis 13.3 was tested by comparing the number of students who were identified as: (1) being quiet, (2) being normally communicative, or (3) being very talkative with the number of students who were identified in their relationship with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.67, D.40, E.31, F.24, and G.43 and show that the variables (classroom communication pattern and student relationship with other students) for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 205 students who were perceived as being quiet in their communication pattern, 8.3 percent were shy and bashful in their relationship with other students, 79.0 percent were responsive in their relationship with other students, and 12.7 percent were bold and aggressive in their relationship with other students. Among 198 students who were perceived as being normally communicative in their communication pattern, 50.0 percent were shy and bashful in their relationship with other students, 46.0 percent were responsive in their relationship with other students, and 4.0 percent were bold and aggressive in their relationship with other students. Among 121 students who were perceived as being very talkative in their communication pattern, 9.1 percent were shy and bashful in their relationship with other students, 43.0 percent were responsive in their relationship with other students, and 47.9 percent were bold and aggressive in their relationship with other students.

The data for the grade block 1-3 reveal that of 67 students who were perceived as being quiet in their communication pattern, 7.5 percent were shy and bashful in their relationship with other students, 73.1 percent were responsive in their relationship with other students, and 19.3 percent were bold and aggressive in their

relationship with other students. Among 57 students who were perceived as being normally communicative in their communication pattern, 40.4 percent were shy and bashful in their relationship with other students, 50.9 percent were responsive in their relationship with other students, and 8.8 percent were bold and aggressive in their relationship with other students. Among 45 students who were perceived as being very talkative in their communication pattern, 13.3 percent were shy and bashful in their relationship with other students, 40.0 percent were responsive in their relationship with other students, and 46.7 percent were bold and aggressive in their relationship with other students.

The data for the grade block 4-6 reveal that of 56 students who were perceived as being quiet in their communication pattern, 10.7 percent were shy and bashful in their relationship with other students, 80.4 percent were responsive in their relationship with other students, and 8.9 percent were bold and aggressive in their relationship with other students. Among 34 students who were perceived as being normally communicative in their communication pattern, 47.1 percent were shy and bashful in their relationship with other students, 50.0 percent were responsive in their relationship with other students, and 2.9 percent were bold and aggressive in their relationship with other students. Among 40 students who were perceived as being very talkative in their communication pattern, 5.0 percent were shy and bashful in their relationship with other students, 42.6 percent were responsive in their relationship with

other students, and 52.5 percent were bold and aggressive in their relationship with other students.

The data for the grade block 7-8 reveal that of 40 students who were perceived as being quiet in their communication pattern, 10.0 percent were shy and bashful in their relationship with other students, 75.0 percent were responsive in their relationship with other students, and 15.0 percent were bold and aggressive in their relationship with other students. Among 50 students who were perceived as being normally communicative in their communication pattern, 56.0 were shy and bashful in their relationship with other students, 40.0 percent were responsive in their relationship with other students, and 4.0 percent were bold and aggressive in their relationship with other students. Among 22 students who were perceived as being very talkative in their communication pattern, 0 percent were shy and bashful in their communication pattern, 45.5 percent were responsive in their relationship with other students, and 54.5 percent were bold and aggressive in their relationship with other students.

The data for the grade block 9-12 reveal that of 42 students who were perceived as being quiet in their communication pattern, 4.8 percent were shy and bashful in their relationship with other students, 90.5 percent were responsive in their relationship with other students, and 4.8 percent were bold and aggressive in their relationship with other students. Among 57 students who were perceived as being normally communicative in their communication pattern,

56.1 percent were shy and bashful in their relationship with other students, 43.9 percent were responsive in their relationship with other students, and 0 percent were bold and aggressive in their relationship with other students. Among 14 students who were perceived as being very talkative in their communication pattern, 21.4 percent were shy and bashful in their relationship with other students, 50.0 percent were responsive in their relationship with other students, and 28.6 percent were bold and aggressive in their relationship with other students.

In summary, in each of the grade blocks the percentage of students who were responsive in their relationship with other students was highest among students who were quiet. Among students who were very talkative, more were bold and aggressive than were shy and bashful, or were responsive in their relationship with other students.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12.

Summary

A summarization of the relationship between student classroom communication pattern and student school conduct reveals that:

- in grade blocks 1-12, 1-3, and 9-12, among students who were either normally communicative or very talkative, more than 60 percent were easily discouraged when faced with a problem; whereas among students who were quiet, the percentage who were easily discouraged when faced with a problem ranged from 37 to 50.
- in grade blocks 1-12, 1-3, 4-6, 7-8, and 9-12, the percentage of students who were responsive in their relationship with

other students was highest among students who were quiet. Among students who were very talkative, more were bold and aggressive than were shy and bashful, or were responsive in their relationship with other students.

Choice of Playmates

Each student was identified by the classroom teacher as generally associating with: (1) younger children, (2) children his own age, or (3) older children. Two null hypotheses were formulated in order to test whether significant relationships exist between choice of playmates and the following two variables:

1. School failure; and
2. Relationship with other students.

Hypothesis 14.1

Null Hypothesis:

There is no relationship between choice of playmates and incidence of school failure.

Hypothesis 14.1 was tested by comparing the number of students who were perceived by the classroom teacher as generally associating with: (1) younger children, (2) children their own age, or (3) older children with the incidence of school failure.

The statistical results are presented in Tables C.68, D.41, and E.32 and show that the variables (choice of playmates and incidence of school failure) for the grade block 1-12 correlate at the .001 level and for the grade blocks 1-3 and 4-6 correlate at the .01 level.

The data for the grade block 1-12 reveal that of 61 students who generally associate with younger children, 44.3 percent were not reported to have repeated a grade, 47.5 percent were reported to have repeated one grade, 8.2 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades. Among 416 students who generally associate with children their own age, 70.2 percent were not reported to have repeated a grade, 27.6 percent were reported to have repeated one grade, 1.7 percent were reported to have repeated two grades, and 0.5 percent were reported to have repeated three grades. Among 22 students who generally associate with older children, 72.7 percent were not reported to have repeated a grade, 27.3 percent were reported to have repeated one grade, 0 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades.

The data for the grade block 1-3 reveal that of 23 students who generally associate with younger children, 30.4 percent were not reported to have repeated a grade, 60.9 percent were reported to have repeated one grade, 8.7 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades. Among 149 students who generally associate with children their own age, 69.1 percent were not reported to have repeated a grade, 28.9 percent were reported to have repeated one grade, 2.0 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades. Among 9 students who generally associate with older children, 66.7 percent were not reported

to have repeated a grade, 33.3 percent were reported to have repeated one grade, 0 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades.

The data for the grade block 4-6 reveal that of 21 students who generally associate with younger children, 52.4 percent were not reported to have repeated a grade, 38.1 percent were reported to have repeated one grade, 9.5 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades. Among 107 students who generally associate with children their own age, 74.8 percent were not reported to have repeated a grade, 25.2 percent were reported to have repeated one grade, 0 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades. Among 6 children who generally associate with older children, 83.3 percent were not reported to have repeated a grade, 16.7 percent were reported to have repeated one grade, 0 percent were reported to have repeated two grades, and 0 percent were reported to have repeated three grades.

In summary, in grade blocks 1-12, 1-3, and 4-6, among the students who played with younger children and were reported to have repeated a grade, the percentage ranged from 38.1 to 60.9; on the other hand, among students who played with children their own age or older and were reported to have repeated a grade, the percentage ranged from 16.7 to 33.3.

The null hypothesis was, therefore, rejected for the grade blocks 1-12, 1-3, and 4-6. Comparisons involving grade blocks 7-8 and 9-12 were not significant.

Hypothesis 14.2

Null Hypothesis:

There is no relationship between choice of playmates and student relationship with other students.

Hypothesis 14.2 was tested by comparing the number of students who were perceived by the classroom teachers as generally associating with: (1) younger children, (2) children their own age, or (3) older children with the number of students who were identified in their relationship with other students as: (1) being shy and bashful, (2) being responsive, or (3) being bold and aggressive.

The statistical results are presented in Tables C.69 and F.25 and show that the variables (choice of playmates and student relationship with other students) for the grade blocks 1-12 and 7-8 correlate at the .001 level.

The data for the grade block 1-12 reveal that of 53 students who generally associate with younger children, 39.6 percent were shy and bashful in their relationship with other students, 39.6 percent were responsive in their relationship with other students, and 20.8 percent were bold and aggressive in their relationship with other students. Among 373 students who generally associate with children their own age, 18.5 percent were shy and bashful in their relationship with other students, 69.9 percent were responsive in their relationship with other students, and 16.6 percent were bold and aggressive in their relationship with other students. Among 19 students who generally associate with older children, 0 percent were shy and bashful in their relationship with other students, 47.4 percent were responsive in

their relationship with other students, and 52.6 percent were bold and aggressive in their relationship with other students.

The data for the grade block 7-8 reveal that of 12 students who generally associate with younger children, 41.7 percent were shy and bashful in their relationship with other students, 50.0 percent were responsive in their relationship with other students, and 8.3 percent were bold and aggressive in their relationship with other students. Among 71 students who generally associate with children their own age, 21.0 percent were shy and bashful in their relationship with other students, 63.4 percent were responsive in their relationship with other students, and 15.5 percent were bold and aggressive in their relationship with other students. Among 6 students who generally associate with older children, 0 percent were shy and bashful in their relationship with other students, 16.7 percent were responsive in their relationship with other students, and 83.3 percent were bold and aggressive in their relationship with other students.

In summary, in grade block 1-12, more than 50 percent of the students who played with older students were bold and aggressive, while in grade block 7-8, 83 percent were bold and aggressive. In grade blocks 1-12 and 7-8, among the students who played with children their own age, more than 63 percent were responsive in their relationship with other students.

The null hypothesis was, therefore, rejected for the grade blocks 1-12 and 7-8. Comparisons involving grade blocks 1-3, 4-6, and 9-12 were not significant.

Summary

A summarization of the relationship between student choice of playmates and student school conduct reveals that:

- in grade blocks 1-12, 1-3, and 4-6, among students who played with younger children and were reported to have repeated a grade, the percentage ranged from 38.1 to 60.9; on the other hand, among students who played with children their own age or older and were reported to have repeated a grade, the percentage ranged from 16.7 to 33.3.
- in grade block 1-12, more than 50 percent of the students who played with older children were bold and aggressive, while in grade block 7-8, 83 percent were bold and aggressive.
- in grade blocks 1-12 and 7-8, among the students who played with children their own age, more than 63 percent were responsive in their relationship with other students.

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CHAPTER VIII

SUMMARIES AND CONCLUSIONS

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The major purposes of the study were to provide a frame of reference for a descriptive profile of a typical student who is referred to a teacher education reading center, and to examine the relationship between specific variables which characterize the low achiever in reading. The data for this study were obtained from case histories of elementary and secondary school students who had been referred to the Michigan State University Reading Center for diagnosis of reading difficulties during the period 1957-1975.

The data were obtained from three questionnaires: School Form, Teacher Form, and Parent Form, which were submitted to the Reading Center for each student prior to an appointment for diagnostic services. Adjunct data were obtained from the Wechsler Intelligence Scale. These instruments provided data on 166 variables for a random sample of 95 students. From among these 166 variables, 21 variables were chosen for which complete data were available. The investigation of these 21 variables proceeded with an analysis of the data on a random sample of 640 students classified according to grade placement as follows: grade block 1-12, grade block 1-3, grade block 4-6, grade block 7-8, and grade block 9-12. One hundred hypotheses were formulated to test relationships among the 21 variables. Chi-square was used to analyze

the data and an alpha level of .01 was selected for rejecting the null hypothesis.

Summary of Findings

The findings are summarized in two parts. First, in accordance with the major purposes of this study, the data provide a descriptive profile of the low achiever in reading which suggests that the student scheduled for an appointment at a teacher education reading center is most likely to be a white, male referral from a rural school district where he has been given either an intelligence test or a battery of achievement tests. His age will fall in the 8-10 year bracket and his grade placement will range from grades 4-6. He will be of normal height and weight and will use his right hand in writing activities.

On measures of intelligence, his Verbal I.Q. score falls below 100 which is exceeded by the Full Scale score. Mathematics is the subject in which he demonstrates the highest academic achievement. He will demonstrate deficits in one or more components of the reading act and his achievement level in reading acquisition will equal that of the average student at third grade placement. The classroom textbook he is assigned for instructional purposes will demand more sophisticated academic tools than he has acquired--a condition of which his teacher may not at all be aware.

In social adjustment he will be perceived as well adjusted and well liked by peers and adults. More likely he interacts to meet the social demands of the school environment by being responsive in his

relationship with other children, by choosing children his own age for playmates, by being quiet in his communication pattern, and by being accepting of authority. When faced with a difficult task he will either withdraw from the situation or face the task intelligently, and be easily discouraged when faced with a problem. Teachers will perceive him as being emotionally calm and that he will sometimes lead and sometimes follow.

For the first three grades, his incidence of absenteeism will range from 0 to 18 days which then negatively accelerates in the upper grades. The school will usually have information about the student's health.

The data describing his family home background will likely reveal that the student is a member of a family with no more than four children and includes siblings of both sexes. Either male or female siblings may have experienced difficulty in the acquisition of reading (10:1 ratio). The father will be 40 years old and the mother 37 years old. The parents will have good personal health and will be free of personal disabilities. Both father and mother will have pursued either post-secondary education or will not have earned a high school diploma. Neither of the parents will have experienced school failure or have received school honors. The student will probably be living with his natural parents. The father's occupation will fall in one of three classifications: professional or managerial, laborer or farmer, or craftsman/mechanic/construction; and his mother will be a homemaker. His parents will

probably enjoy reading but may remember themselves as poor readers (approximately 12:1 ratio). Television is one of the student's major diversions.

Inadherence to parental rules is the most frequent cause for punishment. This punishment takes the form of confinement of the child to his room, is administered solely by his mother, and is believed to be one of the most effective means for controlling behavior.

The student's developmental history will reveal that he will have experienced a normal birth, that he may have suffered some mild ailments in infancy and that his developmental pattern will have been normal. He will have contracted the usual childhood diseases. Speech, hearing, and vision will be normal for children his age. There will be no indication of any complicating health matters.

In behavioral matters, the child may resort to day dreaming, may have manifestations of fears, may give up easily, may be dependent upon others, or may be self-reliant. He will probably not hang up his clothes or store his toys on his own initiative. He is usually pleasant and cooperative except when thwarted, at which time he may exhibit either anger or resentment or be accepting and good natured. Interpersonal relationships with members of the family and neighborhood children will be good. He is likely to be involved in organized peer group activities, will have a hobby, and may have a special interest.

His attitude toward school will probably be ambivalent, and he will probably view the act of reading as unachievable. He will have progressed through school successfully, but if he has repeated a grade,

the repetition will probably have occurred at the first, second, or third grade placement. He will show the least achievement in reading acquisition and the highest achievement in mathematics. Deficits in reading acquisition will have been noted in first or second grade; he probably will have received tutorial assistance and yet will not read voluntarily.

The second part of the summary section of this chapter provides a summarization of the significant relationships among 21 specific variables for each of the grade blocks: 1-12, 1-3, 4-6, 7-8, and 9-12.

Grade Block 1-12

Sex of Student

H0: 1.4 The data reveal that more males than females were reported to have repeated one grade by a margin of approximately 2:1.

H0: 1.5 Males by a margin of 15 percent withdrew from the situation when faced with a difficult task while females by a margin of 15 percent faced the task intelligently. Males and females in about the same proportions act impulsively when faced with a difficult task.

H0: 1.6 Males by a margin of 16 percent were easily discouraged when faced with a problem, while females by a margin of 19 percent were reasonably persistent when faced with a problem. Male students, compared with female students by a margin of slightly less than 3 percent were blindly aggressive when faced with a problem.

Intelligence Quotient

H0: 2.1 The number of students with a verbal I.Q. of 100 or above and perceived by their teachers as well adjusted, exceeds by 14 percent the number of students with a Verbal I.Q. of less than 100 and perceived by their teachers as well adjusted.

HO: 2.2 The data reveal that among the students whose Verbal I.Q. was below 100, more than twice as many students repeated a grade as those students whose Verbal I.Q. was 100 or above.

Among the students whose Performance I.Q. was below 100, 15 percent more were reported to have repeated a grade than did those students whose Performance I.Q. was 100 or above.

Among the students whose Full Scale I.Q. was below 100, approximately twice as many students repeated a grade as did those students whose Full Scale I.Q. was 100 or above.

HO: 2.5 Among students who have a history of low achievement in reading, a substantial portion tend to withdraw from a difficult task. Students at the lower end of the range of Verbal I.Q. were more likely at a ratio of 3:2 to withdraw from a difficult task than those students of the upper range of Verbal I.Q. Conversely, students with a Verbal I.Q. in the upper range at a ratio of almost 2:1 to those students with a Verbal I.Q. in the lower range will face a difficult task intelligently. Hence at a ratio of almost 4:1 students in the lower range of Performance I.Q. tend to withdraw from a difficult task compared to those students who faced the task intelligently. Students with Performance I.Q. in the upper range at a ratio of almost 2:1 tend to withdraw from a difficult task rather than face the task intelligently.

HO: 2.6 Among students with a school history of low achievement in reading, a substantial number of students regardless of their Verbal I.Q. score when faced with a problem, were easily discouraged even though substantially more students in the lower Verbal I.Q. range when faced with a problem were easily discouraged than those in the upper Verbal I.Q. range. Perhaps more significantly, many more students in the upper Verbal I.Q. range tend to be reasonably persistent when faced with a problem than do those whose Verbal I.Q. scores fall in the lower range.

HO: 2.8 There is an 8 percent increase in the number of students who at times either lead or follow and whose Full Scale I.Q. is 100 or above compared to those students whose Full Scale I.Q. is below 100.

HO: 2.11 It appears that more students with a Verbal I.Q. score below 100 were normally communicative in the classroom than students whose Verbal I.Q. score was 100 or above.

Student Academic Problem

HO: 3.4 Among students identified as having a deficiency in components of the reading act, more than 63 percent were perceived by their teachers as being well adjusted. Among the students identified as having an emotional-social behavior problem, more than 62 percent were perceived by their teachers as being not well adjusted.

HO: 3.6 The percentage of students who were perceived by their teachers as being well liked by peers regardless of their academic problems was 63 to 76.

HO: 3.7 More than 75 percent of the students were perceived as being well liked by adults regardless of their academic problems.

HO: 3.9 Among the students who were identified as either having an emotional-social behavior problem or a deficiency in the components of the reading act/emotional-social behavior problem, approximately 75 percent were easily discouraged when faced with a problem.

Of the students who were identified as either having a deficiency in the components of the reading act or a deficiency in the components of the reading act/intellectual functioning, approximately 30 to 39 percent were reasonably persistent when faced with a problem.

HO: 3.10 Regardless of the academic problem, 54 to 78 percent of the students with reference to authority were accepting, 10 to 18 percent were over-dependent, and 10 to 26 percent were resistant.

HO: 3.14 Less than 50 percent of the students having an academic problem were normally communicative. Of the students identified as having a deficiency in the components of the reading act/emotional-social problem, more were talkative than students with any of the other academic problems.

Adjustment of Student

HO: 4.2 Among students perceived by their teachers as well adjusted, the percentage of those withdrawing from the task is approximately the same as the percentage of those facing the task intelligently (ratio of 1:1).

The ratio of students perceived by their teachers as being not well adjusted is approximately 14:1 for those withdrawing from the task and those facing the task intelligently.

HO: 4.5 Among students who were perceived by their teachers as being not well adjusted, approximately 50 percent generally avoid leadership.

HO: 4.7 Twice as many students perceived as being not well adjusted were described as being shy and bashful when compared with students who were perceived as being well adjusted.

HO: 4.8 Approximately twice as many students who were perceived as being well adjusted were described as being quiet in their communication pattern when compared with students who were perceived as being not well adjusted.

More students who were perceived as being not well adjusted were described as normally communicative when compared with students who were perceived as being well adjusted.

HO: 4.9 Among students perceived by their teachers as being well adjusted as well as students perceived by their teachers as being not well adjusted, more than 60 percent selected children their own age as playmates.

Student Acceptance by Peers

HO: 5.1 Among students perceived as being not well liked by peers, approximately 25 percent more withdraw from the situation when compared with students perceived as being well liked by peers.

Three times as many students perceived as being well liked faced the task intelligently when compared with students perceived as being not well liked by peers.

HO: 5.2 More students perceived as being not well liked by peers were easily discouraged when faced with a problem, than students perceived as being well liked by peers.

Among students perceived as being well liked by peers, 39.9 percent were reasonably persistent compared with students perceived as being not well liked by peers; only 15 percent were reasonably persistent.

HO: 5.3 More than 14 percent of the students perceived as being well liked by peers were described as being accepting of authority than students perceived as being not well liked by peers.

H0: 5.4 Of the students perceived as being well liked by peers, 44.7 percent generally avoided leadership compared with 54.7 percent of the students perceived as being not well liked by peers.

H0: 5.7 Of the students perceived as being not well liked by peers, 91.0 percent were perceived as being normally communicative in their communication pattern; whereas, of the students perceived as being well liked by peers, 35.1 percent were perceived as being normally communicative in their communication pattern.

H0: 5.8 Of the students perceived as being well liked by peers, 86.9 percent generally associate with children their own age; whereas, of the students perceived as being not well liked by peers, 68.9 percent generally associate with children their own age.

Of the students perceived as being not well liked, three times as many students associate with younger children compared with students perceived as being well liked. Approximately 5.0 percent of both groups (students well liked by peers and students not well liked by peers) generally associate with older children.

Student Acceptance by Adults

H0: 6.4 Among students perceived as being well liked by adults as well as among students perceived as being not well liked by adults, 50.0 percent or more from each group when faced with a difficult task withdraw from the situation. Yet, of the students perceived as being well liked, four times as many faced the task intelligently when compared with the students perceived as being not well liked.

H0: 6.5 Among students perceived as being well liked by adults and among students perceived as being not well liked by adults, 50.0 percent or more from each group when faced with a problem were easily discouraged. Yet of the students perceived as being well liked by adults, four times as many were reasonably persistent when compared with the students perceived as being not well liked.

H0: 6.6 Approximately 30 percent more of the students perceived as being not well liked by adults were resistant to authority when compared with students perceived as being well liked by adults.

Thirty percent more students perceived as being well liked by adults were accepting with reference to authority when compared with students perceived as being not well liked by adults.

HO: 6.8 Among students perceived as being well liked by adults, more were emotionally calm, less were excitable, and less were apathetic than students perceived as being not well liked by adults.

HO: 6.9 More students perceived as being well liked by adults than students perceived as being not well liked by adults were described as responsive in their relationship with other students by a margin of 33 percent. Of the students perceived as being not well liked by adults, more were bold and aggressive in their relationships with other students compared with students perceived as being well liked by adults.

HO: 6.10 Of the students perceived as being well liked by adults, twice as many were quiet in their communication pattern when compared with students perceived as being not well liked by adults.

Behavior When Faced With a Difficult Task

HO: 7.2 Among students who when faced with a difficult task faced the task intelligently, 84.0 percent were reasonably persistent when faced with a problem.

Among the students who withdraw from the situation when faced with a difficult task, 83.3 percent were easily discouraged when faced with a problem.

Among the students who when faced with a difficult task were perceived as acting impulsively, the number who were easily discouraged when faced with a problem exceeded those reasonably persistent by 41 percent or blindly aggressive by 46 percent.

HO: 7.3 Among the students who when faced with a difficult task withdraw from the situation and among those who faced the task intelligently, 69.9 percent and 91.0 percent, respectively, were accepting with reference to authority.

Among the students who act impulsively when faced with a difficult task, 60.8 percent were accepting with reference to authority.

HO: 7.4 More than 64.0 percent of the students who withdraw from the situation when faced with a difficult task generally avoid leadership.

Among the students who when faced with a difficult task act impulsively, the number usually seeking to lead exceeds those students who withdraw from the situation or those who face the task intelligently.

HO: 7.5 Among the students who withdraw from the situation when faced with a difficult task, 31 percent were perceived as being apathetic in the classroom.

Among the students who when faced with a difficult task faced the task intelligently, 81.0 percent were emotionally calm.

Among the students who when faced with a difficult task were perceived as acting impulsively, 62.9 percent were excitable in the classroom.

HO: 7.6 All students, regardless of behavior pattern, when faced with a difficult task, were responsive in their relationship with other students.

Among the students who act impulsively when faced with a difficult task, 37.4 percent were bold and aggressive.

HO: 7.7 Of the students who were perceived as withdrawing from the situation when faced with a difficult task, 53 percent were perceived as being normally communicative in their communication pattern.

Of the students who were perceived as facing the task intelligently when faced with a difficult task, 54 percent were perceived as being quiet in their communication pattern.

Of the students who were perceived as acting impulsively when faced with a difficult task, 51 percent were perceived as being very talkative.

Behavior When Faced With a Problem

HO: 8.2 Of the students who were easily discouraged when faced with a problem, more than 50 percent were responsive in their relationship with other students.

Of the students who were reasonably persistent when faced with a problem, more than 68 percent were responsive in their relationship with other students.

Of the students who were blindly aggressive when faced with a problem, approximately 60 percent were bold and aggressive in their relationship with other students.

HO: 8.3 More than 73 percent of the students play with children their own age regardless of whether they were easily discouraged, or reasonably persistent, or blindly aggressive when faced with a problem.

Behavior With Reference to Authority

HO: 9.2 More than 82 percent of the students perceived as being over-dependent with reference to authority were easily discouraged when faced with a problem.

Among the students who were accepting of authority, the percentage who were reasonably persistent when faced with a problem exceeded by no more than 9 percent those students who were easily discouraged when faced with a problem.

Among the students who were resistant with reference to authority, the percentage who were blindly aggressive when faced with a problem exceeded those reasonably persistent.

Among the students who were perceived as being resistant to authority, 73 percent when faced with a problem were easily discouraged.

HO: 9.3 Of the students who were accepting of authority, more than 65 percent were responsive in their relationship with other students.

Of the students who were over-dependent with reference to authority, 37 percent were shy and bashful in their relationship with other students.

Among the students who were perceived as being resistant with reference to authority, 59 percent were bold and aggressive in their relationship with other students.

HO: 9.4 Among the students who were over-dependent with reference to authority, at least 49 percent were normally communicative. This percentage exceeded the percentage of students who were accepting of, or resistant to authority and were normally communicative in their communication pattern.

More students who were accepting of authority were quiet in their communication pattern than were students who were perceived as over-dependent or resistant.

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More students who were perceived as being resistant to authority, were very talkative than were students perceived as being over-dependent or accepting of authority.

HO: 9.5 More than 75 percent of the students who play with children their own age were over-dependent or resistant with reference to authority.

Among students who were accepting of authority, 86 percent play with children their own age.

Students who were over-dependent with reference to authority and choose younger children as playmates exceeded the percentage of students who accept or resist authority and choose younger children as playmates.

Students who were more likely to choose older students as playmates were students who resisted authority.

Student Behavior With Reference to Leadership

HO: 10.2 More than 51 percent of the students were easily discouraged when faced with a problem whether they were reported as individuals who avoid leadership, who at times lead or follow, or who usually seek to lead.

Among the students who at times either lead or follow, the largest percentage were easily discouraged when faced with a problem.

Among the students who usually seek to lead, the largest percentage were easily discouraged when faced with a problem.

HO: 10.3 More than 59 percent of the students were accepting of authority whether they were reported as individuals who avoid leadership, who at times lead/follow, or who usually seek to lead.

More than 35 percent of the students who were resistant to authority usually seek to lead.

HO: 10.4 More than 33 percent of the students who generally avoid leadership were apathetic in the classroom.

Of the students perceived as either leading/following or usually seeking to lead, less than 14 percent were apathetic.

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Among students who generally avoid leadership, the percentage who were perceived as being emotionally calm ranged from 44 to 46 percent.

Among students who usually seek to lead, 33 percent were perceived as being emotionally calm.

Among students who usually seek to lead, 52 percent were perceived as being excitable.

Of the students who usually seek to lead, more were perceived as being excitable in the classroom than being apathetic or emotionally calm.

HO: 10.5 Among students who generally avoid leadership, 47.0 percent were responsive in their relationship to other students.

Among students who generally avoid leadership, 44.0 percent were shy and bashful.

Among students who usually seek to lead, 61 percent were bold and aggressive.

HO: 10.6 Among students who generally avoid leadership, 59 percent were normally communicative.

Among students who sometimes lead/follow, the percentage who were quiet in their communication pattern exceeded the percentage who were reported normally communicative or talkative.

HO: 10.7 More than 83 percent of the students who avoid leadership or at times either lead/follow, play with children their own age.

Behavior in the Classroom

HO: 11.2 More than 84 percent of the students perceived as being apathetic in the classroom were easily discouraged when faced with a problem.

More than 51 percent of the students perceived as being emotionally calm in the classroom were reasonably persistent when faced with a problem.

HO: 11.3 Among the students who were perceived as being apathetic or emotionally calm in the classroom, 64 to 88 percent were perceived as being accepting with reference to authority.

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Of the students who were perceived as being excitable in the classroom, 27 percent were perceived as being resistant in comparison to 8 percent that were resistant of those students that were emotionally calm in the classroom.

HO: 11.4 Among the students who were emotionally calm, more than 69 percent were responsive in their relationship with other students.

Among the students who were either apathetic or excitable, less than 50 percent were responsive in their relationship with other students.

Among students who were excitable, more than 39 percent were bold and aggressive in their relationship with other students.

Among the students who were emotionally calm, more than 66 percent were responsive in their relationship with other students.

HO: 11.5 Among students who were either apathetic, emotionally calm, or excitable, the percentage of students who were normally communicative was highest among students who were apathetic in the classroom.

The percentage of students who were very talkative was highest among students who were perceived as being excitable in the classroom.

Classroom Communication Pattern

HO: 13.2 Among the students who were either normally communicative or very talkative, more than 65 percent were easily discouraged when faced with a problem.

Among the students who were quiet, the percentage who were easily discouraged when faced with a problem was 48 percent.

HO: 13.3 The percentage of students who were responsive in their relationship with other students was highest among students who were quiet in their communication pattern.

Among students who were very talkative, more were bold and aggressive than were shy and bashful, or were responsive in their relationship with other students.

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Choice of Playmates

HO: 14.1 Among students who played with younger children and were reported to have repeated a grade, the percentage was 47.5.

Among students who played with children their own age or older and were reported to have repeated a grade, the percentage was 2 percent.

HO: 14.2 More than 20 percent of the students who played with older students were bold and aggressive.

Among the students who played with children their own age, more than 69 percent were responsive in their relationship with other students.

Grade Block 1-3Sex of Student

HO: 1.7 Almost twice as many females as males generally avoid leadership.

More males than females were at times either leading or following.

Six times as many males as females were usually seeking to lead.

Intelligence Quotient

HO: 2.2 The data reveal that among the student whose Verbal I.Q. was below 100, nearly twice as many students repeated a grade as those students whose Verbal I.Q. was 100 or above.

Of the students whose Full Scale I.Q. was below 100, approximately twice as many repeated a grade as did those students whose Full Scale I.Q. was 100 or above.

Student Academic Problem

HO: 3.4 Among students identified as having a deficiency in the components of the reading act, twice as many were perceived by their teachers as being well adjusted compared to students perceived as being not well adjusted.

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The number of students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem and perceived by their teacher as being not well adjusted exceeds by 39 percent those perceived by their teachers as being well adjusted and having a deficiency in the components of the reading act/emotional-social behavior problem.

HO: 3.11 Of the students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 70 percent generally avoid leadership.

Students who were identified as having a deficiency in the components of the reading act/emotional-social problem are more likely to seek leadership than students having a deficiency in the components of the reading act.

Adjustment of Student

HO: 4.2 Of students perceived by their teachers as being not well adjusted, 71 percent when faced with a difficult task withdraw from the situation in comparison to 2 percent who face the task intelligently.

HO: 4.5 Of the students who were perceived by their teachers as being not well adjusted, approximately 50 percent generally avoid leadership.

HO: 4.7 Three times as many students who were perceived as being not well adjusted were described as being bold and aggressive when compared with students who were perceived as being well adjusted.

Twice as many students perceived as being not well adjusted were described as being shy and bashful when compared with students who were perceived as being well adjusted.

HO: 4.8 Approximately twice as many students who were perceived as being well adjusted were described as being quiet in their communication pattern when compared with students who were perceived as being not well adjusted.

Approximately twice as many students who were perceived as being not well adjusted were described as being very talkative when compared with students who were perceived as being well adjusted.

More students who were perceived as being not well adjusted were described as being normally communicative when compared with students who were perceived as being well adjusted.

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Student Acceptance by Peers

HO: 5.1 More than three times as many students perceived as being not well liked by peers withdraw from the situation when compared with students perceived as being well liked by peers.

Of the students perceived as being not well liked by peers, 65 percent faced the task intelligently compared with 87 percent of the students perceived as being well liked by peers.

HO: 5.3 Approximately 14 percent more of the students perceived as being well liked by peers were described as being accepting of authority than students perceived as being not well liked by peers.

Among students perceived as being not well liked by peers more than four times as many were resistant with reference to authority than students perceived as being well liked by peers.

HO: 5.4 Of the students perceived as being well liked by peers, 44.9 percent generally avoided leadership compared with 38.6 percent of the students perceived as being not well liked by peers.

HO: 5.5 Of the students perceived as being not well liked by peers, 14 percent more were excitable in the classroom than the number of students perceived as being well liked by peers and were excitable in the classroom.

HO: 5.6 Of the students perceived as being not well liked by peers, 54 percent were bold and aggressive in their relationship with other students.

HO: 5.8 Of the students perceived as being well liked by peers, 87 percent generally associate with children their own age.

Of the students perceived as being not well liked by peers, 65.9 percent generally associate with children their own age.

Of the students perceived as being not well liked by peers, more than three times as many generally associate with younger children than do students perceived as being well liked.

Student Acceptance by Adults

HO: 6.6 Approximately four times as many students perceived as being not well liked by adults were resistant to authority when compared with students perceived as being well liked by adults.

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Of the students perceived as being well liked by adults, 26.6 percent more were accepting with reference to authority when compared with students perceived as being not well liked by adults.

H0: 6.9 More students perceived as being well liked by adults than students perceived as being not well liked by adults were described as responsive in their relationship with other students by a margin of 37 percent.

Of the students perceived as being not well liked by adults, 50 percent more were bold and aggressive in their relationships with other students compared with students perceived as being well liked by adults.

Behavior When Faced With A Difficult Task

H0: 7.2 Among students who when faced with a difficult task faced the task intelligently, 72 percent were reasonably persistent when faced with a problem.

Among the students who withdraw from the situation when faced with a difficult task, at least 80 percent were easily discouraged when faced with a problem.

Among students who when faced with a difficult task were perceived as acting impulsively, the number who were easily discouraged when faced with a problem exceeded those reasonably persistent or blindly aggressive.

H0: 7.3 Among the students who when faced with a difficult task withdraw from the situation and among those who faced the task intelligently, 71 percent and 100 percent, respectively, were accepting with reference to authority.

Among the students who act impulsively when faced with a difficult task, approximately 63 percent were accepting with reference to authority.

H0: 7.4 Among the students who withdraw from the situation when faced with a difficult task, 60 percent generally avoid leadership.

Among the students who when faced with a difficult task face the task intelligently, 69 percent at times lead or follow.

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Among the students who when faced with a difficult task act impulsively, the number usually seeking to lead exceeds those students who withdraw from the situation or face the task intelligently and usually seek to lead.

HO: 7.5 Among the students who withdraw from the situation when faced with a difficult task, the number who were perceived as apathetic was 30 percent.

Among the students who when faced with a difficult task were perceived as acting impulsively, 42 percent were excitable in the classroom.

Among the students who when faced with a difficult task faced the task intelligently, 72 percent were emotionally calm.

HO: 7.6 Students regardless of their behavior pattern, when faced with a difficult task were responsive in their relationship with other students.

Among students who act impulsively when faced with a difficult task, 42.9 percent were bold and aggressive.

HO: 7.7 Among students who when faced with a difficult task faced the task intelligently, 53.6 percent were quiet in their communication pattern.

Among students who act impulsively when faced with a difficult task, 62 percent were very talkative, and 32 percent were quiet in their communication pattern.

Behavior When Faced With a Problem

HO: 8.2 Of the students who were easily discouraged when faced with a problem, 54 percent were responsive in their relationship with other students.

Of the students who were reasonably persistent when faced with a problem, more than 66 percent were responsive in their relationship with other students.

Of the students who were blindly aggressive when faced with a problem, approximately 60 percent were bold and aggressive in their relationship with other students.

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Behavior With Reference to Authority

HO: 9.3 Among students who were accepting of authority, more than 62 percent were responsive in their relationship with other students.

At least 30 percent of the students who were over-dependent with reference to authority were shy and bashful in their relationship with other students.

Among students who were perceived as being resistant with reference to authority, 68 percent were bold and aggressive in their relationship with other students.

HO: 9.4 Among students who were over-dependent with reference to authority, 40 percent were normally communicative. This percentage exceeded the percentage of students who were accepting of, or resistant to authority and were normally communicative.

More students who were accepting of authority were quiet in their communication pattern than were students who were perceived as over-dependent or resistant.

More students who were perceived as being resistant to authority were very talkative than were students perceived as being over-dependent or accepting of authority.

Behavior With Reference to Leadership

HO: 10.2 Among students who were perceived as generally avoiding leadership, 72 percent when faced with a problem were easily discouraged.

Among students who were perceived as at times either leading or following, 54 percent when faced with a problem were easily discouraged.

Among students who at times either lead or follow, 38 percent were reasonably persistent when faced with a problem.

Among students who were usually seeking to lead, 58 percent when faced with a problem were easily discouraged.

Among students who usually seek to lead, 20 percent were blindly aggressive when faced with a problem.

HO: 10.3 More than 65 percent of the students were accepting of authority whether they were reported as individuals who avoid leadership, who at times lead/follow, or who usually seek to lead.

Among students usually seeking to lead, 30 percent were resistant to authority.

HO: 10.4 More than 32 percent of the students who generally avoid leadership were apathetic in the classroom; whereas of the student perceived as either leading/following or usually seeking to lead, less than 18 percent were apathetic.

Among students who sometimes lead or follow, 54 percent were perceived as being emotionally calm.

Among students who generally avoid leadership, 46 percent were perceived as being emotionally calm.

Of those students who were perceived as usually seeking to lead, 23 percent were perceived as being emotionally calm.

Among students who usually seek to lead, 60 percent were perceived as being excitable.

HO: 10.5 Among students who generally avoid leadership, 52 percent were responsive in their relationship with other students.

Among students usually seeking to lead, 70 percent were bold and aggressive in their relationship with other students.

Among students who were perceived as generally avoiding leadership, approximately 40 percent were shy and bashful in their relationship with other students.

HO: 10.6 Among students who generally avoid leadership, 50 percent were normally communicative in their communication pattern.

Among students who sometimes lead/follow, the percentage who were quiet in their communication pattern exceeded the percentage who were normally communicative or very talkative.

Behavior in the Classroom

HO: 11.2 Among students perceived as being apathetic in the classroom, 88 percent were easily discouraged when faced with a problem.

Among students perceived as being emotionally calm in the classroom, 51 percent were easily discouraged when faced with a problem.

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Among students who were perceived as being excitable in the classroom, 65 percent were easily discouraged when faced with a problem.

HO: 11.3 Among students who were perceived in the classroom as being apathetic, 69 percent were perceived as being accepting with reference to authority.

Among students perceived as being emotionally calm, 85 percent were perceived as being accepting with reference to authority.

Among students perceived as being excitable in the classroom, 63 percent were perceived as being accepting with reference to authority.

HO: 11.4 Among students who were perceived in the classroom as being apathetic, 44 percent were responsive in their relationship with other students.

Among students who were perceived as being emotionally calm, 66 percent were responsive in their relationship with other students.

Among students who were perceived as being excitable, 47 percent were responsive in their relationship with other students.

Among students who were perceived as being excitable, 40 percent were bold and aggressive in their relationship with other students.

HO: 11.5 Among students who were perceived in the classroom as being apathetic, 59 percent were perceived as being normally communicative in their communication pattern.

Among students who were perceived in the classroom as being excitable, 56 percent were perceived as being very talkative in their communication pattern.

Classroom Communication Pattern

HO: 13.2 Among students who were either normally communicative or very talkative, more than 70 percent were easily discouraged when faced with a problem.

Among students who were perceived as being quiet in their communication pattern, 50 percent were perceived as being easily discouraged when faced with a problem.

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HO: 13.3 Among students who were perceived as being quiet in their communication pattern, 73 percent were responsive in their relationship with other students.

Among students who perceived as being very talkative, 54 percent were bold and aggressive in their relationship with other students.

Choice of Playmates

HO: 14.1 Among students who generally associate with younger children, 60 percent were reported to have repeated a grade.

Among students who generally associate with children their own age, 28 percent were reported to have repeated a grade.

Among students who generally associate with older children, 33 percent were reported to have repeated a grade.

Grade Block 4-6

Intelligence Quotient

HO: 2.2 Students whose I.Q. score fell below 100 on either Verbal or Full Scale were four times more likely to have repeated a grade than those whose I.Q. score was 100 or above on Verbal or Full Scale, respectively.

Adjustment of Student

HO: 4.2 Approximately 70 percent of the students perceived by their teachers as being not well adjusted when faced with a difficult task, withdrew from the situation; approximately 2 percent face the task intelligently.

HO: 4.3 Of the students perceived by their teachers as being not well adjusted when faced with a problem, 79 percent were easily discouraged, and 17 percent were reasonably persistent.

HO: 4.4 Among the students who were perceived by their teachers as being not well adjusted, 18 percent were over-dependent, 27 percent were resistant, and 53 percent were accepting with reference to authority. (More were over-dependent, resistant, and less accepting than those students perceived to be well adjusted.)

HO: 4.6 Among students perceived as being not well adjusted, more were apathetic, more were excitable, and fewer were emotionally calm than were students perceived as being well adjusted.

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HO: 4.7 Among students who were perceived as being not well adjusted, more were shy and bashful than were students perceived as well adjusted.

HO: 4.9 Eighty-eight percent of the students generally associate with children their own age.

Student Acceptance by Peers

HO: 5.2 Of the students perceived as being not well liked by peers, 86 percent were easily discouraged when faced with a problem; 10 percent were reasonably persistent.

HO: 5.3 Among students perceived as being not well liked by peers, four times as many were resistant with reference to authority than students perceived as being well liked by peers.

HO: 5.5 Of the students perceived as being not well liked by peers, more than twice as many were excitable in the classroom compared with students perceived as being well liked.

HO: 5.6 Of the students perceived as being not well liked, 46 percent were bold and aggressive in their relationship with other students, 23 percent were responsive; whereas of the students perceived as being well liked, 15 percent were bold and aggressive and 68 percent were responsive.

HO: 5.8 Of the students perceived as being well liked by peers, 84 percent generally associate with children their own age.

Of the students perceived as being not well liked by peers, 59 percent generally associate with children their own age.

Among students perceived as being not well liked, three times as many associate with younger children compared with students perceived as being well liked.

Student Acceptance by Adults

HO: 6.5 Of the students perceived as being well liked, 50 percent when faced with a problem were perceived as being easily discouraged.

Of the students perceived as being not well liked, 85 percent when faced with a problem were perceived as being easily discouraged.

Of the students perceived as being well liked, nine times as many were perceived as being reasonably persistent compared with students perceived as being not well liked by adults.

H0: 6.8 Of the students perceived as being well liked, over four times as many were emotionally calm than of the students perceived as being not well liked by adults.

Of the students perceived as being well liked, less were apathetic and less were excitable than students perceived as being not well liked by adults.

H0: 6.9 Of the students perceived as being not well liked, more were bold and aggressive, more were less responsive, and more were shy and bashful in their relationships with other students compared with students perceived as being well liked.

Behavior When Faced With a Difficult Task

H0: 7.2 Students who withdraw from the situation or act impulsively when faced with a difficult task were easily discouraged when confronted with a problem.

Of those students who faced the task intelligently, 95 percent were perceived as being reasonably persistent.

H0: 7.5 Among the students who withdraw from the situation when faced with a difficult task, 32 percent were perceived as being apathetic.

Students who withdraw from the situation or act impulsively when faced with a difficult task were easily discouraged when confronted with a problem.

Those students who faced the task intelligently were reasonably persistent when confronted with a problem.

Students who react to a difficult task by either withdrawing from the situation or facing the task intelligently were, by a substantial majority, emotionally calm in the classroom.

- H0: 7.7 Among students who withdraw from the situation when faced with a difficult task, the number who were normally communicative in their communication pattern exceeded the number who face the task intelligently or act impulsively and were normally communicative.

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The largest percentage of students who were very talkative in their communication pattern were found in the group which acted impulsively when faced with a difficult task.

Behavior With Reference to Authority

HO: 9.2 Among students who were accepting of authority, the percentage who were reasonably persistent when faced with a problem was exceeded no more than 9 percent by those students who were easily discouraged when faced with a problem.

Among students who were resistant with reference to authority, the percentage who were blindly aggressive when faced with a problem exceeded those reasonably persistent.

HO: 9.3 Among students who were accepting of authority, 68 percent were responsive in their relationship with other students.

Among students who were over-dependent with reference to authority, 30 percent were shy and bashful in their relationship with other students.

Among students who were perceived as being resistant with reference to authority, 68 percent were bold and aggressive in their relationship with other students.

HO: 9.4 Among students who were over-dependent with reference to authority, 52 percent were normally communicative in their communication pattern.

More students who were accepting of authority were quiet in their communication pattern than were students who were perceived as being over-dependent or resistant.

More students who were perceived as being resistant to authority were very talkative than were students perceived as being over-dependent or accepting of authority.

Behavior With Reference to Leadership

HO: 10.2 More than 46 percent of the students were easily discouraged when faced with a problem whether they were reported as individuals who avoid leadership, who at times lead or follow, or who usually seek to lead.

Among students who at times either lead or follow, the largest percentage were persistent when faced with a problem.

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The largest percentage of students that were blindly aggressive when faced with a problem were in the group that usually seek to lead.

HO: 10.3 More than 61 percent of the students were accepting of authority whether they were reported as individuals who avoid leadership, who at times lead/follow, or who usually seek to lead.

Among students who usually seek to lead, 38 percent were resistant with reference to authority.

HO: 10.5 Among students who generally avoid leadership, 53 percent were responsive in their relationship with other students.

Among students who were perceived as generally avoiding leadership, 36 percent were shy and bashful in their relationship with other students.

Among students who usually seek to lead, 62 percent were bold and aggressive.

HO: 10.6 Among students who generally avoid leadership, 57 percent were normally communicative.

Among students who sometimes lead/follow, 49 percent were perceived as being quiet in their communication pattern, exceeding those who were normally communicative or very talkative.

Behavior in the Classroom

HO: 11.3 Among students who were perceived in the classroom as being apathetic, 40 percent were perceived as being accepting with reference to authority.

Among students who were perceived in the classroom as being emotionally calm, 54 percent were perceived as being accepting with reference to authority.

Among students who were perceived in the classroom as being excitable, 5.6 percent were perceived as being accepting with reference to authority.

HO: 11.4 Among students who were emotionally calm, 76 percent were responsive in their relationship with other students.

Among students who were perceived in the classroom as being excitable, 43 percent were responsive in their relationship with other students; 41 percent were bold and aggressive.

HO: 11.5 Among students who were perceived in the classroom as being apathetic, 7.4 percent were perceived as being normally communicative in their communication pattern.

Among students who were perceived in the classroom as being emotionally calm, 29.8 percent were perceived as being normally communicative.

Among students who were perceived in the classroom as being excitable, 13.7 percent were perceived as being normally communicative in their communication pattern, and 49 percent as being very talkative.

Classroom Communication Pattern

HO: 13.3 The percentage of students who were responsive in their relationship with other students was highest among students who were quiet.

Among students who were very talkative, more were bold and aggressive than were shy and bashful, or were responsive in their relationship with other students.

Choice of Playmates

HO: 14.1 Among students who generally associate with younger children, 38 percent were reported to have repeated one grade.

Among students who generally associate with children their own age, 25 percent were reported to have repeated one grade.

Among students who generally associate with older children, 16 percent were reported to have repeated one grade.

Grade Block 7-8

Student Academic Problem

HO: 3.7 Among students who were identified as having a deficiency in components of the reading act, 91 percent were perceived by their teachers as being well liked by adults.

Among students who were identified as having an emotional-social behavior problem, 54 percent were perceived by their teachers as being well liked by adults.

Among students who were identified as having a deficiency in the components of the reading act/intellectual functioning, 60 percent were perceived by their teachers as being well liked by adults.

Among students who were identified as having a deficiency in the components of the reading act/emotional-social behavior problem, 90 percent were perceived by their teachers as being well liked by adults.

Adjustment of Student

H0: 4.2 The ratio of students perceived by their teachers as being not well adjusted is approximately 14:1 for those withdrawing from the task and those facing the task intelligently.

H0: 4.3 Approximately 10 percent more of the students perceived by their teachers as being well adjusted were reasonably persistent than being easily discouraged when faced with a problem.

Among students perceived by their teachers as being not well adjusted, 66 percent more were perceived as being easily discouraged than being reasonably persistent.

H0: 4.4 Approximately 5 percent of the students perceived by their teachers as being well adjusted were described as resistant to authority; whereas approximately 25 percent of those students perceived by their teachers as being not well adjusted were resistant to authority.

H0: 4.6 Among students perceived as being not well adjusted, more were apathetic, more were excitable, and fewer were emotionally calm than were students perceived as being well adjusted. The presence of apathy among students was approximately twice that observed among students in grade blocks 1-3 and 4-6.

H0: 4.7 Among students perceived by their teachers as being well adjusted, over twice as many in their relationship with other students were responsive when compared to students who were perceived as being not well adjusted.

The ratio of shy and bashful students who were perceived as being not well adjusted compared with students who were perceived as being well adjusted was approximately 4:1.

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Student Acceptance by Peers

HO: 5.5 Among students perceived as being not well liked by peers, 29 percent were excitable in the classroom; of those students perceived as being well liked by peers, 26 percent were excitable.

HO: 5.6 Among students perceived as being not well liked by their peers, 24 percent were bold and aggressive in their relationship with other students; 24 percent were responsive in their relationship with other students, and 51 percent were shy and bashful.

HO: 5.7 Among students perceived as being not liked by peers, 69 percent were perceived as being normally communicative in their communication pattern; whereas, of the students perceived as being well liked by peers, 37 percent were perceived as being normally communicative in their communication pattern.

Among students perceived as being well liked by peers, approximately 43 percent were quiet in their communication pattern; whereas of the students perceived as being not well liked by peers, 13 percent were quiet in their communication pattern.

Student Acceptance by Adults

HO: 6.6 Approximately 30 percent more of the students perceived as being not well liked by adults were resistant to authority when compared with students perceived as being well liked by adults.

Among students perceived as being not well liked by adults, the percentage of students who were over-dependent with reference to authority was 5.9.

HO: 6.8 Of students perceived as being not well liked by adults, 68 percent were described as apathetic in the classroom.

Behavior When Faced With a Difficult Task

HO: 7.2 Among students who when faced with a difficult task faced the task intelligently, 79 percent were reasonably persistent when faced with a problem.

Among students who withdraw from the situation when faced with a difficult task, 82 percent were easily discouraged when faced with a problem.

Among students who when faced with a difficult task were perceived as acting impulsively, the number who were easily discouraged when faced with a problem (68 percent) exceeded those reasonably persistent (26 percent) or blindly aggressive (5 percent).

HO: 7.5 Among students who withdraw from the situation when faced with a difficult task, 40 percent were perceived as being apathetic.

Among students who when faced with a difficult task faced the task intelligently, 82 percent were emotionally calm.

Among students who when faced with a difficult task were perceived as acting impulsively, 66 percent were perceived as being excitable in the classroom.

Behavior With Reference to Authority

HO: 9.2 Among students perceived as being over-dependent with reference to authority, 86 percent were easily discouraged when faced with a problem.

Among students who were accepting of authority, the percentage who were reasonably persistent when faced with a problem was exceeded no more than 9 percent by those students who were easily discouraged when faced with a problem.

Among students who were resistant with reference to authority, the percentage who were blindly aggressive when faced with a problem exceeded those reasonably persistent.

HO: 9.3 Among students who were accepting of authority, more than 62 percent were responsive in their relationship with other students.

Among students who were over-dependent with reference to authority, 33 percent were perceived as being shy and bashful in their relationship with other students.

Among students who were perceived as being resistant with reference to authority, approximately 58 percent were perceived as being bold and aggressive in their relationship with other students.

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H0: 9.5 Among students who were over-dependent or resistant with reference to authority, 60 percent generally associate with children their own age.

Among students who were accepting of authority, 87 percent were perceived as generally associating with children their own age.

The percentage of students who were over-dependent with reference to authority and generally associate with younger children exceeded the percentage of students who accept or resist authority and generally associate with younger children.

Students who were more likely to associate with older students were those who were perceived as resisting authority.

Behavior With Reference to Leadership

H0: 10.2 More than 46 percent of the students were easily discouraged when faced with a problem whether they were reported as individuals who avoid leadership, who at times lead or follow, or who usually seek to lead.

The largest percentage of students who were blindly aggressive when faced with a problem were in the group that usually seek to lead rather than in the group that generally avoids leadership or at times leads/follows.

H0: 10.5 Among students who generally avoid leadership, 39 percent were responsive in their relationship with other students.

Among students who were perceived as generally avoiding leadership, 51 percent were shy and bashful in their relationship with other students.

H0: 10.6 Among students who generally avoid leadership, 60 percent were normally communicative in their communication pattern.

Among students who sometimes lead/follow, the percentage who were quiet in their communication pattern equaled the percentage who were perceived as normally communicative and exceeded the percentage who were perceived as being very talkative.

H0: 10.7 More than 80 percent of the students who avoid leadership or at times either lead/follow generally associate with students their own age.

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Behavior in the Classroom

HO: 11.2 Among students perceived as being apathetic in the classroom, 83 percent were perceived as being easily discouraged when faced with a problem.

Among students perceived as being emotionally calm in the classroom, 52 percent were perceived as being reasonably persistent when faced with a problem.

Among students who were perceived as being excitable in the classroom, 74 percent when faced with a problem were perceived as being easily discouraged.

HO: 11.3 Among students who were perceived in the classroom as being either apathetic, emotionally calm, or excitable, the percentage of students who were normally communicative was highest among students who were apathetic in the classroom; whereas the percentage of students who were very talkative was highest among students who were perceived as being excitable in the classroom.

Classroom Communication Pattern

HO: 13.3 Among students who were perceived as being quiet in their communication pattern, 75 percent were responsive in their relationship with other students.

Among students who were perceived as being very talkative, more were bold and aggressive than were shy and bashful or were responsive in their relationship with other students.

Choice of Playmates

HO: 14.2 Among students who generally associate with older children, 83 percent were bold and aggressive in their relationship with other students.

Among students who generally associate with children their own age, 63 percent were responsive in their relationship with other students.

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Grade Block 9-12Intelligence Quotient

HO: 2.1 The number of students with a Verbal I.Q. of 100 or above and who were perceived to be well adjusted exceeded by 27 percent those perceived by their teachers as being well adjusted and whose Verbal I.Q. was below 100.

HO: 2.2 Among students whose Full Scale I.Q. was below 100, approximately twice as many repeated a grade as did those students whose Full Scale I.Q. was 100 or above.

HO: 2.8 Students in the upper Performance I.Q. range were more likely to seek leadership roles among their peers than students in the lower Performance I.Q. range.

HO: 2.9 Students whose Verbal I.Q. scores fell in the upper range were much more likely to be emotionally calm in the classroom than those whose Verbal I.Q. scores fell in the lower range.

Adjustment of Student

HO: 4.2 Among students perceived by their teachers as being not well adjusted, more than three times as many were perceived as withdrawing from the situation as did students perceived by their teachers as being well adjusted.

Among students perceived by their teachers as being well adjusted, over ten times as many were perceived as facing the task intelligently as did those students who were perceived as being not well adjusted.

HO: 4.3 Among students perceived by their teachers as being well adjusted, more than twice as many were perceived as being reasonably persistent when faced with a problem than were easily discouraged when faced with a problem.

Among students perceived by their teachers as being not well adjusted, 87 percent when faced with a problem were perceived as being easily discouraged, and approximately 8 percent were perceived as being reasonably persistent.

HO: 4.4 Among students perceived by their teachers as being well adjusted, 6 percent were resistant with reference to authority; whereas among students perceived as being not well adjusted, 26 percent were resistant to authority.

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HO: 4.5 Among students who were perceived by their teachers as being not well adjusted, approximately 84 percent generally avoid leadership.

HO: 4.6 Among students perceived as being not well adjusted, more were apathetic, more were excitable, and fewer were emotionally calm than were students perceived as being well adjusted.

HO: 4.7 Among students perceived by their teachers as being well adjusted, over twice as many in their relationship with other students were responsive compared with students who were perceived as being not well adjusted.

HO: 4.8 Approximately three times as many students who were perceived as being well adjusted were described as being quiet in their communication pattern when compared with students who were perceived as being not well adjusted.

Approximately twice as many students who were perceived as being not well adjusted were described as being very talkative when compared with students who were perceived as being well adjusted.

More students who were perceived as being not well adjusted were described as being normally communicative when compared with students who were perceived as being well adjusted.

Student Acceptance by Peers

HO: 5.1 The number of students perceived as being not well liked by peers when faced with a problem who withdraw from the situation was approximately twice that of the number of students perceived as being well liked by their peers.

HO: 5.2 More students perceived as being not well liked by peers were easily discouraged when faced with a problem than were students who were perceived as being well liked by peers.

HO: 5.3 Among students perceived as being not well liked by peers, twice as many were resistant with reference to authority as were students perceived as being well liked by peers.

Approximately 30 percent more of the students perceived as being well liked by peers were perceived as being accepting of authority than were students perceived as being not well liked by peers.

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HO: 5.4 Approximately 54 percent of the students perceived as being well liked by peers generally avoid leadership compared with 78 percent of the students perceived as being not well liked by peers.

Among students perceived as being not well liked by peers, more usually seek to lead compared with students perceived as being well liked by peers.

HO: 5.5 Among students perceived as being not well liked by peers, more were excitable in the classroom compared with students perceived as being well liked.

HO: 5.6 Among students perceived as being well liked by peers, 71 percent were responsive in their relationship with other students; of those students perceived as not being well liked, 32 percent were responsive in their relationship with other students.

HO: 5.7 Among students perceived as being not well liked by peers, 66 percent were normally communicative in their communication pattern, whereas among students perceived as being well liked by peers, 43 percent were normally communicative in their communication pattern.

Less students perceived as being not well liked by peers were quiet than those students perceived as being well liked.

Student Acceptance by Adults

HO: 6.5 Among students perceived as being well liked by adults, approximately three times as many were reasonably persistent when compared with students perceived as being not well liked.

Of students perceived as being well liked and of students perceived as being not well liked, more than 50 percent were easily discouraged when faced with a problem.

HO: 6.6 Approximately 30 percent more of the students perceived as being not well liked by adults were resistant to authority when compared with students perceived as being well liked by adults.

Approximately 50 percent more students perceived as being well liked by adults were accepting with reference to authority when compared with students perceived as being not well liked by adults.

Among students perceived as being not well liked, 25 percent were over-dependent with reference to authority.

H0: 6.8 Among students perceived as being well liked by adults, more were emotionally calm, less were excitable, and less were apathetic than students perceived as being not well liked by adults.

H0: 6.10 Among students perceived as being well liked by adults, approximately four times as many students were quiet when compared with students perceived as being not well liked by adults.

Of students perceived as being not well liked, 25 percent more were very talkative when compared with students perceived as being well liked by adults.

Behavior When Faced With a Difficult Task

H0: 7.2 Students who withdraw from the situation or act impulsively when faced with a difficult task were easily discouraged when confronted with a problem.

Students who faced the task intelligently were reasonably persistent when confronted with a problem.

H0: 7.3 More than 90 percent of the students who face the task intelligently when faced with a difficult task were accepting with reference to authority.

Among students perceived as acting impulsively when faced with a difficult task, approximately 42 percent were perceived as being resistant.

H0: 7.4 More than 60 percent of the students who withdraw from the situation when faced with a difficult task generally avoid leadership.

Approximately 40 percent of the students who face a difficult task intelligently will sometimes lead or follow.

Of the students who act impulsively when faced with a difficult task, 50 percent sometimes lead or follow.

H0: 7.5 Among students who were perceived as withdrawing from the situation when faced with a difficult task, approximately 40 percent were emotionally calm in the classroom.

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Among students who were perceived as facing the task intelligently, 90 percent were perceived as being emotionally calm in the classroom.

Approximately 63 percent of the students who act impulsively when faced with a difficult task were excitable in the classroom.

H0: 7.6 Regardless of their behavior when faced with a difficult task, a large percentage of the children were responsive in their relationship with other children.

Among students who withdraw from the situation when faced with a difficult task, approximately 50 percent were shy and bashful.

H0: 7.7 Among students who withdraw from the situation when faced with a difficult task, the number who were normally communicative in their communication pattern exceeded the number who face the task intelligently or act impulsively and were normally communicative in their communication pattern.

The largest percentage of students who were quiet in their communication pattern were in the group which faced a difficult task intelligently when compared with those who withdraw from the situation or those who act impulsively.

The largest percentage of students who were very talkative in their communication pattern were in the group which acted impulsively when faced with a difficult task.

Behavior When Faced With a Problem

H0: 8.1 Among students reasonably persistent when faced with a problem, approximately 11 percent were reported to have repeated a grade compared with approximately 40 percent of the students easily discouraged when faced with a problem and were reported to have repeated a grade.

Behavior With Reference to Authority

H0: 9.2 Among students perceived as being over-dependent or as being resistant with reference to authority, approximately 80 percent when faced with a problem were perceived as being easily discouraged.

Among students perceived as being accepting with reference to authority, 51 percent were perceived as being reasonably persistent.

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HO: 9.3 Among students perceived as being accepting of authority, 69 percent were perceived as being responsive in their relationship with other students; of those being resistant, 53 percent were responsive in their relationship with other students.

Among students who were over-dependent with reference to authority, 58 percent were shy and bashful in their relationship with other students.

HO: 9.4 Among students who were perceived as being over-dependent or accepting with reference to authority, over 50 percent were perceived as being normally communicative in their communication pattern.

Among students who were perceived as being resistant with reference to authority, 60 percent were perceived as being very talkative in their communication pattern.

Behavior With Reference to Leadership

HO: 10.2 Among students who were perceived as generally avoiding leadership, 71 percent were perceived as being easily discouraged when faced with a problem.

Among students who were perceived either as at times leading/following or as usually seeking to lead, 55 percent were perceived as being reasonably persistent when faced with a problem.

HO: 10.4 More than 35 percent of the students who generally avoid leadership were apathetic in the classroom, whereas of the students perceived as either leading/following or usually seeking to lead, less than 12 percent were apathetic.

Among students who either avoid leadership, at times lead or follow, or usually seek to lead, 44 to 77 percent were perceived as being emotionally calm.

HO: 10.5 Among students who were perceived as generally avoiding leadership, 44 percent were responsive in their relationship with other students.

Among students who generally avoid leadership, 50 percent were shy and bashful in their relationship with other students.

Among students who usually seek to lead, 28 percent of the students were reported as being bold and aggressive in their relationship with other students.

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HO: 10.6 Among students who generally avoid leadership, 70 percent were perceived as being normally communicative in their communication pattern.

Among students who sometimes lead/follow, the percentage who were quiet in their communication pattern exceeded the percentage who were reported normally communicative or very talkative.

Behavior in the Classroom

HO: 11.2 More than 85 percent of the students perceived as being apathetic in the classroom were easily discouraged when faced with a problem.

Approximately 60 percent of the students perceived as being emotionally calm in the classroom were reasonably persistent when faced with a problem.

More than 75 percent of the students who were excitable in the classroom were easily discouraged when faced with a problem.

HO: 11.3 Among students who were perceived in the classroom as being emotionally calm, 95 percent were perceived as being accepting with reference to authority.

Among students perceived as being apathetic in the classroom, 53 percent were perceived as being accepting with reference to authority.

Among students perceived as being excitable in the classroom, 38 percent were perceived as being accepting with reference to authority; 42 percent were perceived as being resistant with reference to authority.

HO: 11.4 Among students perceived in the classroom as being emotionally calm, 70 percent were responsive in their relationship with other students; whereas among students perceived as being apathetic or excitable in the classroom, less than 55 percent were responsive in their relationship with other students.

HO: 11.5 Among students who were either apathetic, emotionally calm, or excitable, the percentage of students who were normally communicative was highest among students who were apathetic in the classroom; whereas the percentage of students who were very talkative was highest among students who were perceived as being excitable in the classroom.

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Classroom Communication Pattern

H0: 13.2 Among students who were either normally communicative or very talkative in their communication pattern, more than 60 percent were easily discouraged when faced with a problem; whereas among students who were quiet, 37 percent were easily discouraged when faced with a problem.

H0: 13.3 The percentage of students who were responsive in their relationship with other students was highest among students who were quiet.

Among students perceived as being very talkative, more were bold and aggressive than were shy and bashful.

Conclusions

Sex of Student

In regard to the classroom climate, it appears that male students with a history of low achievement in reading may need more support and encouragement when faced with a difficult task as well as when faced with a problem. This suggests that the classroom teacher may be consistently requiring the male student to perform tasks that exceed his current level of functioning and thus reinforces an attitude, "I cannot do it."

Intelligence Quotient

Students having a Verbal I.Q. of 100 are likely to enjoy good school adjustment and are not as likely to repeat a grade and withdraw from a difficult task.

A Performance I.Q. below 100 appears to handicap a student in the school environment in the sense that 80 percent of such students tend to withdraw from a difficult task. This may indicate that the ability to see an overall pattern and to determine one's behavior,

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as well as to see parts integrated into a whole, are necessary skills that low achievers in reading need to develop.

That a substantial number of students were easily discouraged when faced with a difficult task may be an indication that classroom teachers were unaware of the accumulative effect of prolonged exposure to tasks whose demands exceed the student's level of functioning.

Student Academic Problem

It appears that among the students who have deficits in components of the reading act, more were well adjusted than were the students who had an emotional-social behavior problem.

The fact that more than 63 percent of the students were perceived by their teachers as being well liked by peers, and more than 75 percent were well liked by adults, suggests that academic deficiencies among students do not appear to be determinants in relationships with peers and adults.

Among students with a social-emotional problem, about three-fourths were easily discouraged when faced with a problem. This suggests an assumption that the inability to face problems may be kith and kin in identity to one's emotional-social problem.

Teachers believe that more students were accepting of authority than were either over-dependent or resistant with reference to authority, which raises the possibility that teachers do not always distinguish between behaviors which may signal acceptance of authority on the one hand and the withdrawal from learning tasks on the other.

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Adjustment of Student

Among students classified by teachers as well adjusted, the percentage who withdraw from a task which they perceived as difficult and the percentage who face the task intelligently is about equally divided. Among students who were classified by teachers as not well adjusted, the ratio of those withdrawing from a difficult task as opposed to those who face a difficult task intelligently is 14:1. These data suggest six fundamental issues in judging the nature of behaviors: (1) What is the student's perception of the nature of the learning task? (2) Is withdrawal from a difficult task prompted by the nature and difficulty of the learning task or is it a concomitant of maladjustment? (3) What is the student's degree of awareness of the withdrawal behavior--its purpose and consequence? (4) What behaviors distinguish the well adjusted student who is shy and bashful from the not well adjusted student who is shy and bashful? (5) Are students with low achievement in reading more likely to be shy and bashful than students who achieve well in reading? (6) Do more low achieving students tend to withdraw from difficult tasks than students with good achievement records?

Students who are perceived as being well adjusted and quiet in the classroom outnumber students who are perceived as not being well adjusted and quiet in the classroom at a ratio of 2:1. Because the control of student behavior is pertinent to classroom management and because quietness is a significant factor in classroom climate, the issue here may well be one of determining whether the not well

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adjusted student fails to maintain quietness because he is unable to interpret the teacher's clues signaling quietness or he has not acquired appropriate behaviors for coping with a quiet environment.

Student Acceptance by Peers

By a ratio of 3:1 students who were liked by their peers and faced a difficult task intelligently outnumbered students who were not well liked and faced a difficult task intelligently. This information may have implications for developing a classroom climate where the consequences of facing a difficult task intelligently satisfies the student's needs--even though the task in itself may have been distasteful. Perhaps the message may be found between the lines, namely, that the quality of the interrelationships among the students may significantly influence how a student faces the tasks which are prerequisite to the acquisition of reading.

Students who were not well liked by peers were perceived as being normally communicative which may reflect a means for gaining peer recognition and approval as well as a means for exchanging information in order to meet the demands of the instructional program.

Choice of playmates reflected a marked differentiation between students perceived as being well liked by their peers and those perceived as being not well liked by their peers. Perhaps it is belaboring the obvious to point out that students well liked by their peers choose to play with children of their age group while a substantial portion of students not well liked by their peers choose to play with children of a younger age group. The significance of this to teachers lies in the

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conditions that account for choice of playmates: children who are well liked by peers have in general acquired behaviors which are appropriate for dealing with peers--that is why they are liked by their peers in the first place; conversely, children not well liked by peers do not have readily available behaviors which are appropriate for dealing with peers which is why they, in turn, are not liked by peers. Accordingly, students not well liked by peers turn to younger children where their behaviors are more likely to be accepted.

Student Acceptance by Adults

Whether a student is well liked or not well liked by adults appears to have little influence on a student's behavior when faced with a problem or a difficult task--for it was found that at least 50 percent of both students who were well liked by adults and students who were not well liked by adults exhibited similar behaviors, namely, withdrawal from a difficult task and discouragement when faced with a problem. Among the students in the remainder of the sample, those who were well liked by adults and faced a task intelligently or were reasonably persistent when faced with a problem, outnumbered 4:1 the students who were not well liked by adults and faced a task intelligently or were reasonably persistent when faced with a problem.

More of the students who were well liked by adults were accepting of authority than were students who were not well liked by adults. More students who were not well liked by adults were resistant to authority than were students who were perceived as being well liked by adults.

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Students who were well liked by adults were quiet in their communication pattern. Among students who were not well liked by adults, fewer were quiet in their communication pattern.

Among students perceived as being well liked by adults, more were emotionally calm, fewer were excitable and fewer were apathetic than among students perceived as being not well liked by adults. This may indicate that classroom teachers have difficulty devising strategies to cope with students who exhibit excitable or apathetic behavior which causes teachers to classify these as not well liked.

Behavior When Faced With a Difficult Task

The data suggest that if students face a difficult task intelligently, they tend to be reasonably persistent; if they withdraw from a difficult task, they tend to be easily discouraged; and if they face a task intelligently, they tend to be accepting of authority.

Behavior When Faced With a Problem

Regardless of their behavior when faced with a problem, less than 40 percent of the students were not responsive to other students. This lack of response among students of low achievement in reading may reflect an inability to initiate appropriate behaviors for interpersonal relationships with other students.

Behavior With Reference to Authority

Among students perceived as being over-dependent with reference to authority, more than three-fourths tend to be easily discouraged when faced with a problem; about one-third tend to be shy and bashful

in their relationship with other students; and approximately one-half are normally communicative in their communication pattern.

Among students perceived as being accepting with reference to authority, about one-half tend to be either reasonably persistent when faced with a problem, or easily discouraged; approximately two-thirds were responsive in their relationship with other students; less than half tend to be quiet in their communication pattern; and more than three-fourths played with children their own age.

Behavior With Reference to Leadership

Whether students were reported as individuals who avoid leadership, who at times lead or follow, or who usually seek to lead, the largest percentage were: (1) easily discouraged when faced with a problem, and (2) accepting of authority.

Behavior in the Classroom

Among students who were either apathetic, emotionally calm, or excitable, the percentage of students who were normally communicative was highest among students who were apathetic in the classroom.

Classroom Communication Pattern

The percentage of students who were responsive in their relationship with other students was highest among students who were quiet in their communication pattern.

Choice of Playmates

Among students who played with younger children, 47.5 percent were reported to have repeated a grade. On the other hand, 70.2 percent of the students who played with children their own age, were not reported to have repeated a grade. This suggests, then, that grade placement may be a strong influence in choice of playmates.

Among the students who played with children their own age, more than 69 percent were responsive in their relationship with other children.

APPENDIX A

QUESTIONNAIRES

MICHIGAN STATE UNIVERSITY
READING CENTER
250 ERICKSON HALL
EAST LANSING, MICHIGAN 48823
(517) 355-1755

TEACHER FORM

Student's Name _____ Age _____ Grade _____

1. What is this student's academic problem as you see it? _____

2. What textbooks is he now using?

Reading _____

Other _____

3. In what areas have you observed this student to show the most ability? (Please give specific examples if possible.)

Academic _____

Other _____

4. In what areas have you observed this student to show the least ability? (Please give specific examples if possible.)

Academic _____

Other _____

5. In what areas has this student shown unusual interest? _____

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6. From your observation, would you say this student is well-adjusted?

Please indicate why you feel he is/is not well-adjusted?

7. a. Is he well-liked by other students? _____ b. By adults? _____

Please check the appropriate phrases on the basis of your observations.
Feel free to add any comments in the space on the right.

8. When faced with a difficult task, does he
 a. withdraw from the situation _____
 b. faces the task intelligently _____
 c. act impulsively _____
9. In his relations with other children, do you find that he
 a. generally avoids leadership _____
 b. usually seeks to lead _____
 c. at times he either leads or follows _____
10. Is he usually
 a. emotionally calm _____
 b. apathetic _____
 c. excitable _____
11. With reference to authority, is he
 a. over-dependent _____
 b. accepting _____
 c. resistant _____
12. In the classroom, do you find him to be
 a. normally communicative _____
 b. quiet _____
 c. very talkative _____
13. When faced with a problem, is he
 a. reasonably persistent _____
 b. easily discouraged _____
 c. blindly aggressive _____
14. In his play activities, does he generally associate with
 a. younger children _____
 b. older children _____
 c. children his own age _____

15. In his relations with other children, do you consider him to be
- a. shy and bashful _____
 - b. responsive _____
 - c. bold and aggressive _____

ADDITIONAL COMMENTS: _____

Date of Report _____

SIGNATURE OF TEACHER _____

MICHIGAN STATE UNIVERSITY
 READING CENTER
 250 ERICKSON HALL
 EAST LANSING, MICHIGAN 48823
 (517) 355-1755

SCHOOL RECORD

Student's Name _____ Grade _____
 Birthdate _____ Age _____
 School _____ Principal _____
 Address _____ Phone _____

Academic Progress: Please attach a duplicate copy of student's current report card. List last year's final marks, grades repeated, comments on file by former teachers. (Use the back of this sheet if necessary.)

Attendance Record: Please indicate number of days absent for each grade.

K _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____

Health: Please list physical infirmities, accidents, severe illnesses noted in school record.

Standardized Tests: Please include all test results available---intelligence, achievement, etc. (Use the back of this sheet if necessary to complete this information as well as for any additional comments.)

<u>Date Given</u>	<u>Name of Test</u>	<u>Results</u>
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Signed _____

Date of Report _____ Position _____

Please have former teachers evaluate this child; their comments may be attached to this report.

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MICHIGAN STATE UNIVERSITY
 READING CENTER
 250 EDUCATION BUILDING
 EAST LANSING, MICHIGAN 48823
 (517) 332-1511, Ext. 3579

PARENT FORM 1

This form is intended to provide information which will be helpful to us in understanding the child coming for reading diagnosis. Please answer all questions as fully as possible.

Child's Name _____ Date of Testing _____

List the names of all members of the family and others who may be living with the family. Indicate under "comments" if child was adopted; if parents are separated or divorced. For each person listed comment on that individual's

1. state of health
2. occupation
3. honors or failures in school
4. attitude toward the child

<u>Relationship to Child</u>	<u>Name</u>	<u>Age</u>	<u>Education</u>
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Father

Comment:

Mother

Comment:

Comment:

Comment:

(If additional space is needed, use back of sheet.)

Give a chronological report of school progress starting with earliest experience (nursery school, kindergarten, first-grade, etc.). At each grade level comment on the following:

1. Attendance record (number of days absent, approximately).
2. Illnesses, duration and severity.
3. Academic strengths and weaknesses (speech, reading, arithmetic, etc.).
4. Non-promotion.
5. Changes of school or residence.
6. Your reaction to child's progress.

Grade

<u>Example:</u>	<u>Dates</u>	<u>Comments</u>
Nursery school	Jan. '53 to June '53	Absent 2 weeks due to tonsillitis attack; did not join in group activities well; shy, teacher reported he was cooperative, followed directions well and worked well by himself; he did not talk much about nursery school at home; family moved to Lansing in July.

1. Do you feel that your child is difficult to control at home? _____
Please explain: _____
2. Do the parents enjoy reading? _____ If so, what? _____

3. How much does your child read voluntarily? _____

4. What does he read? _____
5. Do you have television? _____ Does this present any difficulty?

6. For what kind of an occupation do you expect your child to prepare?

7. Does he hang up his clothes and store his toys? _____

8. How does he get along with other children in the family? _____

9. How does he get along with children in the neighborhood? _____

10. Was birth normal? _____
11. What difficulties did you have with him as an infant? _____

12. Comment on his speech development and his present use of speech.

13. What is the child's usual behavior when you prevent him from
carrying out a course of action?

14. What is his usual disposition? _____
15. What kind of play activities does he do
most successfully? _____
least successfully? _____

16. What are his main interests and hobbies? _____

17. Have you ever noticed him daydreaming? _____

18. What school activities does he like
most? _____
least? _____
19. Have any defects of hearing ever been reported? _____ What was
done?

20. Have any defects in vision ever been reported? _____ What was done?

21. Has he ever had any unusual spells, seizures, sleepwalking,
nervousness, breakdowns, indigestion, etc.?

22. Have there been any periods of unusual growth (either height or
weight)?

23. List serious illnesses or injuries and age at which each occurred.

Signed _____
(parent)

Date of Report _____

If the child has had any previous special attention (tutoring, eye examination, medical treatment, psychological testing, etc.) please ask the person responsible in each case to send us a report of his findings.

The Parent Form and supplementary reports should be returned to the READING CENTER before the date of testing.

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MICHIGAN STATE UNIVERSITY
 READING CENTER
 250 EDUCATION BUILDING
 EAST LANSING, MICHIGAN 48823
 (517) 332-1511, Ext. 3579

PARENT FORM 2

(This form is intended to provide information which will be helpful to us in understanding the student coming for reading diagnosis. Please answer all questions as fully as possible and return this form to the READING CENTER before the date of testing.)

Student's Name: _____

Home Background

Father's occupation: _____

Father's education: completed high school? ____, attended college? ____.

Name of college: _____ college degree(s): _____

Father's age: _____ Place of birth: _____

Mother's occupation: _____

Mother's education: completed high school? ____, attended college? ____.

Name of college: _____ college degree(s): _____

Mother's age: _____ Place of birth: _____

Is any language other than English spoken in the home? _____

Has either parent been divorced? _____ Are both parents living? _____

How often has family moved during student's life? _____ How old was he at these times?

Brothers and sisters:

Name

Age

Grade or Occupation

Do any other persons live in the home? _____. If yes, list below their names, ages, relation to student.

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School History

1. Did student attend kindergarten? _____ Age at entrance into first grade? _____
2. Has student changed schools frequently? _____ In what grades? _____
3. Has student been absent from school for long periods? _____ Reason: _____
In what grades? _____
4. Has student failed any grades? _____ Which? _____
Has student skipped any? _____
5. When was difficulty in reading first noted: _____
6. Has the student been tutored in reading? _____ Give details: _____

7. In what school subjects does student receive best grades? _____
Poorest grades? _____
8. Does student plan to continue education beyond high school? _____
In what type of school? _____ For what kind of occupation do you expect him to prepare? _____

Medical History

List childhood diseases and serious injuries and ages at which they occurred:

1. Have there been any periods of unusual growth (either height or weight)? _____
2. Present height and weight: _____
3. Has student ever had any unusual spells, seizures, sleepwalking, nervousness, upset stomach, etc.? _____
4. Does student wear glasses? _____ When did he begin to wear them? _____

5. What is nature of visual defect? _____
6. When was student's vision last checked? _____
7. Have any defects of hearing ever been reported? _____

1

2

2

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11

8. Date of last physical examination? _____

9. Does student have any physical handicap? _____ If so, describe:

Activities, Interests, Attitudes

List student's hobbies, clubs, organizations, activities:

1. In what sports does student participate? _____

2. Is there a television set in the home? _____ How much time does student spend watching television? _____ Does student read voluntarily? _____

3. Do parents enjoy reading? _____ If so, what? _____

4. Does student work after school? _____

5. How much time does he spend studying? _____

6. What are student's responsibilities in home? _____

7. How does he behave when he is prevented from doing something he wants to do? _____

8. What is his usual disposition? _____

9. How does he get along with other members of the family? _____

10. Does he have many friends of his age? _____ Does he date? _____

11. What is the state of his present sex knowledge (check below)?

- _____ a. nothing
- _____ b. has asked questions and parents have explained fully
- _____ c. indications that he has discussed it with others of his age
- _____ d. may be curious but has never asked questions
- _____ e. embarrassed by any discussion of sex

12. What is his attitude toward school? _____

Signed _____
(parent)

Date of Report _____

Return to: READING CENTER
Department of Teacher Education
Michigan State University
East Lansing, Michigan 48823

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MICHIGAN STATE UNIVERSITY
 READING CENTER
 250 Erickson Hall
 East Lansing, Michigan 48823
 (517) 355-1755

PARENT FORM 3

This form is intended to provide information which will be helpful to us in understanding your child. Please answer all questions as fully as possible and return this form and a current picture of your child, to the READING CENTER.

Child's name _____ Birthdate _____
 Address _____ Phone _____
 (number and street town/city zip code) (area code, etc.)
 School _____ Present grade _____
 Height _____ Weight _____

Family History

	<u>Father</u>	<u>Mother</u>
Name:	_____	_____
Age:	_____	_____
Occupation:	_____	_____
Birthplace:	_____	_____
Education:	_____	_____
School honors/failures:	_____	_____
Health:	_____	_____
Physical disabilities:	_____	_____
Either parent divorced?	_____	_____

Brothers and Sisters

<u>Name</u>	<u>Age</u>	<u>Grade/Occupation</u>	<u>Difficulties in School</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Other persons living in the home

Age and relation to your child

Lanugage(s) other than English spoken in the home

Developmental History

1. Is this child a foster child or adopted? _____ If so, at what age did he/she enter your home? _____
2. Any unusual conditions associated with pregnancy? _____ If so, describe:

3. Was birth normal? _____ If not, describe difficulties:

4. Was this a full-term baby? _____ Weight at birth: _____.
5. Any difficulties in infancy (e.g., colic, feeding, sleeping, etc.)?

6. Childhood diseases, serious injuries, surgery. Age at which occurred.

7. Has your child ever had any unusual spells, seizures, nervousness, etc.? _____
8. If so, describe: _____
9. Does your child wear glasses? _____ To correct what vision difficulty? _____ When did he/she begin to wear them?

10. Last vision check-up: _____
11. Does your child have a hearing defect? _____ If so, describe:

12. Has your child had any of the following difficulties?

	<u>Yes/No</u>	<u>Now Present</u>	<u>Stopped When?</u>
Bed wetting	_____	_____	_____
Thumb sucking	_____	_____	_____
Nightmares	_____	_____	_____
Temper tantrums	_____	_____	_____
Allergies	_____	_____	_____
Daydreaming	_____	_____	_____

13. Does your child have any health problems? _____ If so, describe:
 _____ Last physical exam: _____

14. Is your child receiving any medication now? _____ If so, specify:
 _____ Has your child a physical handicap? _____ If
 so, describe: _____

15. Does your child have a speech problem now? _____ If so, describe:
 _____ Any speech difficulties in the past? _____
 If so, describe: _____

16. Is your child right or left handed? _____ Has he/she changed
 use of hands? _____ If so, why? _____

17. On page 4, give a chronological report of your child's school
 progress, beginning with his/her earliest experience (nursery
 school, kindergarten, first grade, etc.). At each grade level,
 comment on the following:

- a. Attendance record (approximate number of days absent).
- b. Illnesses: duration and severity.
- c. Academic strengths and weaknesses (speech, reading
 arithmetic, etc.).
- d. Non-promotion.
- e. Changes of school or residence.
- f. Your reaction to your child's progress.

18. In what subjects does your child achieve best? _____

19. In what subjects does he/she show poorest achievement?

20. When was difficulty in reading first noticed? _____

21. Has your child been tutored in reading? _____ For how long? _____

- School Progress Report (see directions on page 3)

<u>Grade</u>	<u>Dates</u>	<u>Comments</u>
<u>Example:</u> Nursery school	Jan. '53 to June '53	Absent two weeks due to tonsillitis attack. Did not join in group activities well. Shy; teacher reported he was cooperative, followed directions well and worked well by himself. He didn't talk much about school at home. Family moved to Lansing in July.

25. Is assistance in reading being given now? _____ If so, by whom?
 _____ How often? _____
 In what way? _____
26. Does your child read voluntarily? _____ What? _____
27. What is your child's attitude toward school? _____

Behavior, Attitudes, Interests

1. List your child's hobbies and major activities: _____

2. Note any special interest(s): _____
3. How much time does your child spend watching television? _____
4. Does your child have many friends his age? _____ How does your
 child get along with the neighborhood children? _____
5. Does your child get along better with girls or with boys? _____
6. How does your child get along with other children in the family?

7. With his parents? _____
8. What is your child's usual disposition?
 Cheerful _____ Unhappy _____
 Cooperative _____ Complaining _____
 Changes moods quickly _____
9. Is there evidence of anxiety (e.g., tensions, fears, insecurity)?
 _____ If so, describe: _____
10. For what type of occupation do you expect your child to prepare?

11. In what situations is your child self-reliant? _____

12. In what situations is your child dependent on others? _____

13. Does he give up easily? _____
14. Compared with other children of this age, is your child's general development
 below average _____ average _____ above average _____

Family Environment

- | | <u>Father</u> | <u>Mother</u> |
|---|-------------------------|---------------|
| 1. Do you like to read | _____ | _____ |
| 2. What? | _____ | _____ |
| 3. How much do you read? | _____ | _____ |
| 4. Were you a good reader in elementary school? | _____ | _____ |
| 5. What activities do you share with your child? | _____ | _____ |
| 6. How often? | _____ | _____ |
| 7. For what is your child punished? | _____ | _____ |
| 8. What punishment is most effective? | _____ | _____ |
| 9. Who does most of the punishing? | _____ | _____ |
| 10. Are there any family problems that may contribute to your child's present reading difficulties? _____ If so, describe: | _____

_____ | |
| 11. Does your child date? _____ What is the present state of your child's sex knowledge: nothing _____; has asked questions and parents have explained _____; appears to have discussed it with others his age _____; may be curious but has never asked questions _____; embarrassed by any discussion of sex _____. | | |

Additional Information

Please add any information you feel will be helpful in understanding and helping your child.

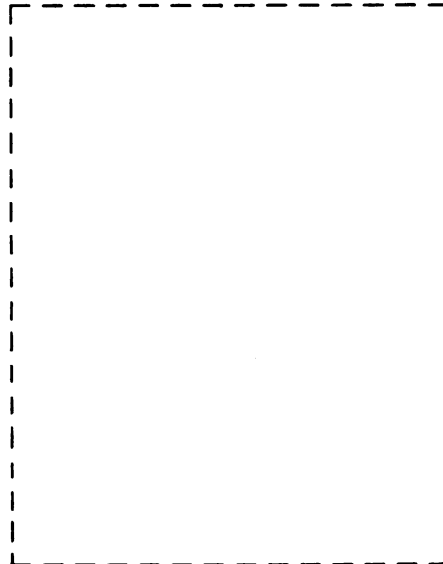
Signed _____

Relationship to child _____

Date _____

Return this (together with the
Application Form) to:

READING CENTER
250 Erickson Hall
Michigan State University
East Lansing, Michigan 48823



TEACHER FORM SUMMARY SHEET 1

Student's Case Number _____ Age _____ Grade _____

1. What is this student's academic problem as you see it?
 - a. No academic problem
 - b. Deficiency in components of the reading act
 - c. Intellectual functioning
 - d. Sensory/perception
 - e. Emotional/social behavior
 - f. Deficiency in components of the reading act and intellectual functioning
 - g. Deficiency in components of the reading act and sensory/perception
 - h. Deficiency in components of the reading act and emotional/social behavior
 - i. Intellectual functioning and sensory/perception
 - j. Intellectual functioning and emotional/social behavior
2. Was a reading level given for the textbooks used in the classroom?
 - a. Yes
 - b. No
3. What is the reading level of the textbook that the student is using in the classroom?

a. Non-reader	e. Second	i. Sixth
b. Pre-primer	f. Third	j. Seventh
c. Primer	g. Fourth	k. Eighth
d. First	h. Fifth	l. Ninth-Twelfth
4. In what subject does the student have the most ability? (Academic)
 - a. Math/Arithmetic
 - b. Science
 - c. Social Studies
 - d. Language Arts
5. In what subject does the student have the most ability? (Other)

a. Physical Education	e. Leadership
b. Music	f. Shop
c. Art/Audio Visual	g. Handwriting
d. Agriculture	

6. In what subject does the student show least ability? (Academic)
 - a. Reading activity
 - b. Non-reading activity
 - c. Reading activity and non-reading activity
7. Does the student show any unusual interest?
 - a. Yes
 - b. No

If yes, check one of the following:

 - a. Reading
 - b. Non-reading
 - c. Reading and non-reading
8. From your observation, would you say this student is well-adjusted?
 - a. Yes
 - b. No
9. Is he well liked by other students?
 - a. Yes
 - b. No
10. Is he well-liked by adults?
 - a. Yes
 - b. No

Please check the appropriate phrases for the following:

11. When faced with a difficult task, does he
 - ☐ a. withdraw from the situation
 - ☐ b. face the task intelligently
 - ☐ c. act impulsively
12. In his relations with other children, do you find that he
 - ☐ a. generally avoids leadership
 - ☐ b. usually seeks to lead
 - ☐ c. at times he either leads or follows
13. Is he usually
 - ☐ a. emotionally calm
 - ☐ b. apathetic
 - ☐ c. excitable

14. With reference to authority, is he
☐ a. over-dependent
☐ b. accepting
☐ c. resistant
15. In the classroom, do you find him to be
☐ a. normally communicative
☐ b. quiet
☐ c. very talkative
16. When faced with a problem, is he
☐ a. reasonably persistent
☐ b. easily discouraged
☐ c. blindly aggressive
17. In his play activity, does he generally associate with
☐ a. younger children
☐ b. older children
☐ c. children his own age
18. In his relations with other children, do you consider him to be
☐ a. shy and bashful
☐ b. responsive
☐ c. bold and aggressive

TEACHER FORM SUMMARY SHEET 2

Student's Case Number _____ Age _____ Grade _____

1. What is this student's academic problem as you see it?
 - a. No academic problem
 - b. Deficiency in components of the reading act
 - c. Intellectual functioning
 - d. Sensory/perception
 - e. Emotional/social behavior
 - f. Deficiency in components of the reading act and intellectual functioning
 - g. Deficiency in components of the reading act and sensory/perception
 - h. Deficiency in components of the reading act and emotional/social behavior
 - i. Intellectual functioning and sensory/perception
 - j. Intellectual functioning and emotional/social behavior
2. From your observation, would you say this student is well-adjusted?
 - a. Yes
 - b. No
3. Is he well-liked by other students?
 - a. Yes
 - b. No
4. Is he well-liked by adults?
 - a. Yes
 - b. No

Please check the appropriate phrases for the following:

5. When faced with a difficult task, does he
 - _____ a. withdraw from the situation
 - _____ b. face the task intelligently
 - _____ c. act impulsively
6. In his relations with other children, do you find that he
 - _____ a. generally avoids leadership
 - _____ b. at times he either leads or follows
 - _____ c. usually seeks to lead

7. Is he usually
___ a. apathetic
___ b. emotionally calm
___ c. excitable
8. With reference to authority, is he
___ a. over-dependent
___ b. accepting
___ c. resistant
9. In the classroom, do you find him to be
___ a. quiet
___ b. normally communicative
___ c. very talkative
10. When faced with a problem, is he
___ a. easily discouraged
___ b. reasonably persistent
___ c. blindly aggressive
11. In his play activity, does he generally associate with
___ a. younger children
___ b. children his own age
___ c. older children
12. In his relations with other children, do you consider him to be
___ a. shy and bashful
___ b. responsive
___ c. bold and aggressive

PARENT FORM SUMMARY SHEET

Student's Case Number _____ Age _____ Grade _____

Family HistoryMotherFather

Name: _____

Age: _____

Occupation: _____

Professional (teachers, technical, health)

Managers (administration)

Sales workers (business)

Clerical

Craftsman (construction, mechanic, foreman)

Operative (transport)

Laborers (farmers)

Service (cleaning, food service, protective, personal health,
conservation)

Private household worker

Homemaker

Education: _____

K-6th grade

K-8th grade

Completed grade 12

Did not complete high school

Graduate equivalency diploma

Trade school, junior college, business school

College two years/two years of college

College three years

College four years

Associate Degree/RN

Bachelor of Arts/Science

Master of Arts/DDS

School Honors: _____

Yes No

School Failures: _____

Yes No

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Family HistoryMotherFather

State of Health:

Excellent

Good

Fair

Poor

Physical Disabilities:

Yes No

Parent Divorced:

Yes No

Number of brothers _____

Number of sisters _____

Position of student in the family _____

Number of brothers with academic problem _____

Number of brothers with reading problem _____

Number of sisters with academic problem _____

Number of sisters with reading problem _____

Are there any other persons living in the home? Yes No

Age and relation to your child: _____

Is there language(s) other than English spoken in the home?

____ Yes ____ No

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Developmental History

Is this child a foster child? ☐ Yes ☐ No

Is this child adopted? ☐ Yes ☐ No

If so, what age did he/she enter your home? _____

Any unusual conditions associated with pregnancy? ☐ Yes ☐ No

Was birth normal? ☐ Yes ☐ No

Was this a full-term baby? ☐ Yes ☐ No

If no, was he/she late ☐ or early ☐?

Weight at birth in pounds and ounces:

☐ 5.0-6.15 ☐ 7.0-8.15 ☐ 9.0-10.15 ☐ 11.0-12.15

Did the child have any difficulties in infancy? ☐ Yes ☐ No

Childhood Diseases

☐ none
☐ measles
☐ mumps
☐ chicken pox
☐ tonsilectomy

Has you child ever had any unusual spells? ☐ Yes ☐ No

Have any defects in vision been reported? ☐ Yes ☐ No

Does your child wear glasses and did he/she wear them before age 7 or after age 8?

☐ Yes, before 7; ☐ Yes, after age 8; ☐ No

Was the student's vision checked recently? ☐ Yes ☐ No

If yes,

☐ within one year of testing
☐ within two years of testing
☐ within three years or more

What vision difficulty needed to be corrected?

☐ far sightedness; ☐ near sightedness; ☐ lazy eye
☐ astigmatism; ☐ resting eyes/temporary weakness; ☐ unknown

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Does your child have a hearing defect? ☐ Yes ☐ No

Does your child have the following difficulties?

	Yes	No
Thumb sucking:	☐	☐
Nightmares:	☐	☐
Temper tantrums:	☐	☐
Allergies:	☐	☐
Daydreaming:	☐	☐

Does your child have any health problems? ☐ Yes ☐ No

Last physical examination: ☐ answered with the year;
 ☐ answered with two years;
 ☐ not answered

Is your child receiving any medication now? ☐ Yes ☐ No

Has your child a physical handicap? ☐ Yes ☐ No

Does your child have a speech problem now? ☐ Yes ☐ No

Any speech difficulties in the past? ☐ Yes ☐ No

Is your child right or left handed?

☐ right handed; ☐ left handed; ☐ both

In what subjects does your child achieve best?

☐ art	☐ spelling
☐ music	☐ no best subject
☐ social science	☐ science
☐ English	☐ math
☐ shop	

In what subjects does he/she show poorest achievement?

☐ reading	☐ shop
☐ arithmetic	☐ drawing
☐ social science	☐ English
☐ geography	☐ science
☐ spelling	☐ other
☐ penmanship	☐ all the same
☐ history	

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School Progress Report

Number of times child failed _____ and the grade _____.

When was difficulty in reading first noticed? (what grade)

_____ first	_____ fifth
_____ second	_____ sixth
_____ third	_____ seventh/eighth
_____ fourth	_____ ninth-twelfth

Has the student been tutored in reading? _____ Yes _____ No

In what grade was your child tutored in reading?

_____ first	_____ fifth
_____ second	_____ sixth
_____ third	_____ seventh/eighth
_____ fourth	_____ ninth-twelfth

For what period of time was he/she tutored?

_____ long term systematic
_____ very little systematic (summer term)
_____ short spurts systematic

Assisted in reading now? _____ Yes _____ No

Does child read voluntarily? _____ Yes _____ No _____ Very little

What is child's attitude towards school?

_____ good/normal
_____ not good/fair/imposition

Behavior, Attitudes, Interests

Does your child have hobbies? _____ Yes _____ No

Does your child have major activities? _____ Yes _____ No

Does your child have any special interest? _____ Yes _____ No

How much time does your child spend watching TV?

_____ 0-2 hours daily
_____ 3-6 hours daily
_____ 6 hours daily

Does your child have any friends his/her age? _____ Yes _____ No

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How does your child get along with the neighborhood children?

- ☐ gets along
☐ does not get along

Does your child get along better with:

- ☐ boys
☐ girls
☐ both

How does he get along with other children in the family?

- ☐ gets along
☐ does not get along

How does he get along with parents?

- ☐ gets along
☐ does not get along

What is your child's usual disposition?

- ☐ cheerful/happy/pleasant
☐ cooperative/fair/good
☐ unhappy
☐ complaining
☐ changes moods quickly

Is there evidence of anxiety, tension, fears, insecurity?

- ☐ Yes ☐ No

For what type of occupation do you expect your child to prepare?

- | | |
|--|---|
| ☐ professional | ☐ labor/farmer |
| ☐ managerial | ☐ service |
| ☐ sales worker | ☐ private household worker |
| ☐ clerical | ☐ homemaker |
| ☐ craftsman | ☐ up to child to decide |
| ☐ operative/transport | |

Is your child self reliant? ☐ Yes ☐ No

Is your child dependent upon others? ☐ Yes ☐ No

Does your child give up easily? ☐ Yes ☐ No

Compared with other children of this age, is your child's general development

- ☐ below average
☐ average
☐ above average

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Family Environment

Do you like to read? ☐ Yes ☐ No ☐ Some/Average

What do you like to read?

- ☐ magazines
- ☐ newspaper
- ☐ books
- ☐ all three

Were you a good reader in elementary school? ☐ Yes ☐ No

For what is your child punished?

- ☐ failure to assume responsibility
- ☐ asocial
- ☐ breaking parents rules
- ☐ talking back/arguing
- ☐ being noisy/fooling around

What punishment is most effective?

- ☐ confinement (sent to room)
- ☐ depriving one of privileges
- ☐ physical punishment
- ☐ reprimands

Who does most of the punishing?

- ☐ mother
- ☐ father
- ☐ both

What is the child's present weight? (in pounds)

- ☐ 50-79 pounds
- ☐ 80-100 pounds
- ☐ 101-120 pounds
- ☐ 121-139 pounds
- ☐ 140-160 pounds

What is the child's present height?

- ☐ 4'0"-4'11"
- ☐ 5'0"-5'5"
- ☐ 5'6"-5'11"
- ☐ 6'0"-6'5"

How does your child behave when prevented from doing something he wants to do?

- | | |
|---|---|
| ☐ angry/resents | ☐ debates issue |
| ☐ good natured/accepts | ☐ pouts/mad short time |
| ☐ sullen/withdraws | ☐ cries |

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Do you have a TV? ☐ Yes ☐ No

Any period of unusual growth? ☐ Yes ☐ No

If yes, where?

- ☐ height
- ☐ weight
- ☐ height and weight

If no,

- ☐ height
- ☐ weight
- ☐ height and weight

Is your child difficult to control at home? ☐ Yes ☐ No

Does your child hang up his/her clothes and store his/her toys?

- ☐ yes
- ☐ no
- ☐ sometimes/not always
- ☐ has to be told
- ☐ parental pressure

Number of times family moved?

- | | |
|------------------------------------|--------------------------------------|
| ☐ never | ☐ three times |
| ☐ one time | ☐ four times |
| ☐ two times | ☐ five times |

How old was the child when he/she moved?

- | | |
|--------------------------------------|---|
| ☐ one-five | ☐ thirteen-sixteen |
| ☐ six-eight | ☐ one-eight |
| ☐ nine-twelve | ☐ six-sixteen |

Has child changed schools frequently? ☐ Yes ☐ No

If yes, how many times? _____

In what grade did child change schools?

- | | |
|---------------------------------|--|
| ☐ first | ☐ first-third |
| ☐ second | ☐ fourth-sixth |
| ☐ third | ☐ seventh-twelfth |

Does TV present difficulties?

- ☐ yes
- ☐ no
- ☐ at times/sometimes

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What do you think may be the cause of the child's reading difficulty?

- ☐ no idea
- ☐ poor instruction/school setting
- ☐ phonetics/sounds/reverses
- ☐ blame parents
- ☐ blame child

What is the child's attitude toward reading?

- ☐ wants to read
- ☐ does not like to read
- ☐ lack of motivation
- ☐ short attention span

Child's speech development:

- ☐ good/normal speech
- ☐ talking early
- ☐ slow at talking/developed slowly in talking
- ☐ speech therapy/speech problem
- ☐ pronunciation/vocabulary

SCHOOL RECORD SUMMARY SHEET

Student's Case Number _____ Grade _____

Birthdate _____ Age _____

School _____ Address _____

Academic Progress:

1. A. Was the student's academic progress recorded?

_____ yes

_____ no

- B. If yes, check how it was reported:

_____ letter grades (A, B, C, D, F) or (S, U)

_____ parent conference

_____ teachers' comments

Attendance Record: Indicate percentage of days absent for each grade.

2. Indicate percentage of days absent for each grade

_____ Kindergarten	_____ fifth
_____ first	_____ sixth
_____ second	_____ seventh-eighth
_____ third	_____ ninth-twelfth
_____ fourth	

The following table is a conversion table for coding number of days absent into percentages based on 180 days in the school year for the State of Michigan.

<u>K-6</u>	<u>7-8</u>	<u>9-12</u>
1-18 days (10%)	1-36 days (10%)	1-72 days (10%)
19-35 days (20%)	37-72 days (20%)	73-144 days (20%)
37-54 days (30%)	73-108 days (30%)	
55-72 days (40%)	109-144 days (40%)	
73-90 days (50%)	145-180 days (50%)	
91-108 days (60%)		
_____ no absence		

Health

3. Was the student's health recorded? ☐ Yes ☐ No

Standardized Tests

4. A. Does the school have a testing program? ☐ Yes ☐ No

B. If yes, check the type of testing program:

☐ usual battery (achievement test; I.Q. test)

☐ diagnostic battery

☐ both

APPENDIX B

FREQUENCIES FOR 95 SUBJECTS

Table B.1 Number of schools indicating the use of a testing program (N = 95)

Testing Program	Year Block							
	1957-1960				1961-1965			
	Schools				Schools			
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Testing Program:								
Battery	7	35.0	9	36.0	12	48.0	10	40.0
I.Q. or	9	45.0	9	36.0	10	40.0	13	52.0
Achievement ^a								
No testing	3	15.0	5	20.0	2	8.0	2	8.0
program	--	--	2	8.0	1	4.0	--	--
Blank	1	5.0	--	--	--	--	--	--
Not available								

^a Minimum of one test indicated.

Table B.2 Tests administered to the student before coming to the clinic (N = 95)

Tests Administered	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
Usual Battery-						
Achievement Test	3 15.0	1 4.0	-- --	-- --	4 4.2	
Diagnostic Battery	-- --	1 4.0	2 8.0	3 12.0	6 6.3	
Reading Test	1 5.0	1 4.0	1 4.0	-- --	3 3.2	
No test	15 75.0	20 80.0	21 84.0	22 88.0	78 82.1	
Blank	-- --	2 8.0	1 4.0	-- --	3 3.2	
Not available	1 5.0	-- --	-- --	-- --	1 1.1	

Table B.4 Number of forms filled out per month (N = 95)

Months	Year Blocks									
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975					
	Students									
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)		
January	3	12.0	4	16.0	2	8.0	--	--	9	9.5
February	3	12.0	4	16.0	2	8.0	6	24.0	15	15.8
March	1	4.0	8	32.0	5	20.0	8	32.0	22	23.2
April	2	8.0	2	8.0	2	8.0	3	12.0	9	9.5
May	3	12.0	2	8.0	3	12.0	1	4.0	9	9.5
June	--	--	1	4.0	3	12.0	1	4.0	5	5.3
July	--	--	--	--	--	--	--	--	--	--
August	--	--	--	--	--	--	--	--	--	--
September	3	12.0	1	4.0	2	8.0	--	--	6	6.3
October	2	8.0	--	--	2	8.0	2	8.0	6	6.3
November	2	8.0	2	8.0	--	--	--	--	4	4.2
December	1	4.0	1	4.0	3	12.0	4	16.0	9	9.5
Blank	--	--	--	--	1	4.0	--	--	1	1.1

Table B.6 Distribution of students by grade blocks (N = 95)

Grade Block	Year Block							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
1-3	3	9.4	10	31.3	10	31.3	9	28.1
4-6	6	16.7	8	22.2	11	30.6	11	30.6
7-8	4	25.0	4	25.0	4	25.0	4	25.0
9-12	7	63.6	3	27.3	--	--	1	9.1
Total	20	21.1	25	26.3	25	26.3	25	26.3

Table B.7 Distribution of students by year blocks (N = 95)

Year Block	Grade Block							
	1-3		4-6		7-8		9-12	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
1957-60	3	15.0	10	40.0	10	40.0	9	36.0
1961-65	6	30.0	8	32.0	11	44.0	11	44.0
1966-70	4	20.0	4	16.0	4	16.0	4	16.0
1971-75	7	35.0	3	12.0	--	--	1	4.0
Total	20	100.0	25	100.0	25	100.0	25	100.0

Table B.8 Age of students at time tested (N = 95)

Age (years)	Year Block									
	1957-1960		1961-1965		1966-1970		1971-1975			
	Students									
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)		
6	--	--	--	--	--	--	1	.04	1	1.1
7	--	--	--	--	1	.04	2	.08	3	3.2
8	2	10.0	5	20.0	--	--	2	.08	9	9.5
9	1	.05	6	24.0	8	32.0	4	16.0	19	20.0
10	2	10.0	5	20.0	6	24.0	4	16.0	17	17.9
11	2	10.0	1	.04	3	12.0	2	.08	8	8.4
12	2	10.0	1	.04	2	.08	5	20.0	10	10.5
13	3	15.0	4	16.0	1	.04	2	.08	10	10.5
14	2	10.0	--	--	4	16.0	2	.08	8	8.4
15	1	.05	1	.04	--	--	--	--	2	2.1
16	2	10.0	--	--	--	--	--	--	2	2.1
17	3	15.0	1	.04	1	.04	--	--	5	5.3
18	--	--	--	--	--	--	--	--	--	--
19	--	--	1	.04	--	--	--	--	1	1.1
Total	20		25		25		25		95	
Age Range	8-17 years		8-19 years		7-17 years		6-14 years		6-19 years	

Table B.9 Grade of student when forms were filled out (N = 95)

Grade	Year Block											
	1957-1960		1961-1965		1966-1970		1971-1975		1957-1975			
	Students											
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)		
First	--	--	--	--	1	4.0	3	12.0	4	4.2		
Second	--	--	3	12.0	3	12.0	3	12.0	9	9.5		
Third	3	15.0	7	28.0	6	24.0	3	12.0	19	20.0		
Fourth	--	--	5	20.0	6	24.0	1	4.0	12	12.6		
Fifth	2	10.0	2	8.0	2	8.0	5	20.0	11	11.6		
Sixth	4	20.0	1	4.0	3	12.0	5	20.0	13	13.7		
Seventh	3	15.0	4	16.0	2	8.0	1	4.0	10	10.5		
Eighth	1	5.0	--	--	2	8.0	3	12.0	6	6.3		
Ninth	3	15.0	1	4.0	--	--	--	--	4	4.2		
Tenth	2	10.0	1	4.0	--	--	--	--	3	3.2		
Eleventh	1	5.0	1	4.0	--	--	1	4.0	3	3.2		
Twelfth	1	5.0	--	--	--	--	--	--	1	1.1		

Table B.10 Grade of student when tested (N = 95)

	Year Block									
	1957-1960		1961-1965		1966-1970		1971-1975		1957-1975	
	Students									
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
First	--	--	--	--	--	--	1	4.0	1	1.1
Second	--	--	1	4.0	1	4.0	4	16.0	6	6.3
Third	3	15.0	8	32.0	7	28.0	4	16.0	22	23.2
Fourth	--	--	6	24.0	5	20.0	1	4.0	12	12.6
Fifth	2	10.0	2	8.0	5	20.0	4	16.0	13	13.7
Sixth	4	20.0	1	4.0	1	4.0	3	12.0	9	9.5
Seventh	3	15.0	3	12.0	3	12.0	4	16.0	13	13.7
Eighth	1	5.0	1	4.0	3	12.0	2	8.0	7	7.4
Ninth	3	15.0	1	4.0	--	--	1	4.0	5	5.3
Tenth	2	10.0	1	4.0	--	--	--	--	3	3.2
Eleventh	1	5.0	--	--	--	--	1	4.0	2	2.1
Twelfth	1	5.0	1	4.0	--	--	--	--	2	2.1

Table B.11 Student's weight and height at time of registration for Reading Center (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.)	(%)	(no.)	(%)	(no.)	(%)
<u>Weight (in Pounds):</u>						
50-79	--	--	2	8.0	12	48.0
80-100	2	10.0	1	4.0	8	32.0
100-120	3	15.0	1	4.0	1	4.0
121-139	--	--	--	--	2	8.0
140-160	5	25.0	1	4.0	--	--
Blank	--	--	2	8.0	2	8.0
Not available	10	50.0	21	84.0	--	--
<u>Height (in Feet and Inches):</u>						
4'0"-4'11"	2	10.0	--	--	14	56.0
5'0"-5'5"	2	10.0	2	8.0	4	16.0
5'6"-5'11"	4	20.0	1	4.0	1	4.0
6'0"-6'5"	1	5.0	1	4.0	--	--
Blank	1	5.0	1	4.0	6	24.0
Not available	10	50.0	21	84.0	--	--

Table B.12 Student's handedness (N = 95)^a

Handedness	Year Blocks							
	Students				Students			
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	1971-1975	1976-1980	1981-1985
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
Right handed	-- --	-- --	15 60.0	19 76.0	34 35.8	19 76.0	34 35.8	34 35.8
Left handed	-- --	-- --	2 8.0	5 20.0	7 7.4	5 20.0	7 7.4	7 7.4
Both	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
Blank	-- --	-- --	-- --	-- --	1 1.1	1 4.0	1 1.1	1 1.1
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8	-- --	53 55.8	53 55.8

^aValid cases = 95; missing cases = 0.

Table B.13 Sex of students, Grades 1-12 (N = 95)^a

Sex of Student	Year Block									
	1957-1960		1961-1965		1966-1970					
	1971-1975		1976-1980		1981-1985					
	Students									
	(no.)	(%) ^b	(no.)	(%) ^b	(no.)	(%) ^b				
Males	18	90.0	14	56.0	22	88.0	18	72.0	72	75.8
Females	2	10.0	11	44.0	3	12.0	7	28.0	23	24.2
Total	20		25		25		25		95	

^aValid cases = 95; missing cases = 0. This applies to all tables in Appendix C.^bPercentages are based upon the total number of students for each year block.

Table B.14 Wechsler Intelligence Quotient scores (N=95)

Scores	Year Block									
	1957-1960		1961-1965		1966-1970		1971-1975		1957-1975	
	Students									
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
A. Verbal I.Q.:										
60-69	--	--	--	--	2	8.0	--	--	2	2.1
70-79	--	--	3	12.0	3	12.0	1	4.0	7	7.4
80-89	3	15.0	2	8.0	7	28.0	3	12.0	15	15.8
90-109	13	65.0	14	56.0	9	36.0	16	64.0	52	54.7
110-119	1	5.0	3	12.0	3	12.0	5	20.0	12	12.6
120-129	1	5.0	1	4.0	--	--	--	--	2	2.1
Blank	2	10.0	2	8.0	1	4.0	--	--	5	5.3
B. Performance I.Q.:										
60-69	--	--	--	--	--	--	--	--	--	--
70-79	--	--	1	4.0	2	8.0	--	--	3	3.2
80-89	1	5.0	3	12.0	3	12.0	--	--	7	7.4
90-109	12	60.0	14	56.0	15	60.0	16	64.0	57	60.0
110-119	5	25.0	3	12.0	2	8.0	7	28.0	17	17.9
120-129	--	--	2	8.0	2	8.0	2	8.0	6	6.3
Blank	2	10.0	2	8.0	1	4.0	--	--	5	5.3
C. Full Scale I.Q.:										
60-69	--	--	--	--	1	4.0	--	--	1	1.1
70-79	--	--	1	4.0	2	8.0	--	--	3	3.2
80-89	2	10.0	5	20.0	5	20.0	2	8.0	14	14.7
90-109	13	65.0	15	60.0	15	60.0	18	72.0	61	64.2
110-119	2	10.0	1	4.0	1	4.0	5	20.0	9	9.5
120-129	1	5.0	1	4.0	--	--	--	--	2	2.1
Blank	2	10.0	2	8.0	1	4.0	--	--	5	5.3
D. Verbal Score Higher Than Performance Score:										
0-15	6	30.0	7	28.0	6	24.0	4	16.0	23	24.2
16-30	--	--	3	12.0	1	4.0	--	--	4	4.2
30	--	--	--	--	--	--	--	--	--	--
Same score	1	5.0	1	4.0	1	4.0	3	12.0	6	6.3
E. Performance Score Higher Than Verbal Score:										
0-15	9	45.0	7	28.0	9	36.0	11	44.0	36	37.9
16-30	2	10.0	4	16.0	5	20.0	7	28.0	18	18.9
30	--	--	1	4.0	2	8.0	--	--	3	3.2
F. I.Q. Score Which Is Below 100 and Above 100:										
Below 100:										
Verbal	13	65.0	15	60.0	17	68.0	13	52.0	58	61.1
Performance	5	25.0	15	60.0	18	72.0	8	32.0	46	48.4
Full Scale	10	50.0	13	52.0	17	68.0	10	40.0	50	52.6
Above 100:										
Verbal	5	25.0	8	32.0	7	28.0	12	48.0	32	33.7
Performance	13	65.0	8	32.0	6	24.0	17	68.0	44	46.3
Full Scale	8	40.0	10	40.0	7	28.0	15	60.0	40	42.1
Blank:										
Verbal	2	10.0	2	8.0	1	4.0	--	--	5	5.3
Performance	2	10.0	2	8.0	1	4.0	--	--	5	5.3
Full Scale	2	10.0	2	8.0	1	4.0	--	--	5	5.3

Table B.15 Academic area in which the student demonstrates the most ability (N = 95)^a

Academic Area	Year Block									
	1957-1960		1961-1965		1966-1970		1971-1975			
	Students									
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)		
Math./arith.	5	25.0	11	44.0	12	48.0	7	28.0	35	36.8
Science	2	10.0	2	8.0	--	--	1	4.0	5	5.3
Social studies	3	15.0	2	8.0	1	4.0	1	4.0	7	7.4
Language arts	2	10.0	4	16.0	1	4.0	5	20.0	12	12.6
Blank	8	40.0	6	24.0	11	44.0	11	44.0	36	37.9
Not available	--	--	--	--	--	--	--	--	--	--

Table B.17 Non-academic area in which the student demonstrates the most ability (N = 95)

Non-Academic Area	Year Block							
	Students							
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975			
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.)	(%)	(no.) (%)
Physical education	3 15.0	2 8.0	2 8.0	3 12.0	10 10.5			
Music	-- --	1 4.0	-- --	-- --	1 1.1			
Art	1 5.0	6 24.0	7 28.0	6 24.0	20 21.1			
Agriculture	1 5.0	-- --	-- --	-- --	1 1.1			
Leadership	2 10.0	-- --	-- --	-- --	2 2.1			
Shop	1 5.0	1 4.0	-- --	-- --	2 2.1			
Handwriting	-- --	2 8.0	1 4.0	2 8.0	5 5.3			
Blank	12 60.0	13 52.0	15 60.0	14 56.0	54 56.8			

Table B.19 Unusual interests demonstrated by the student (N = 95)

Demonstrated Interests	Year Block							
	1957-1960				1961-1965			
	Students				Students			
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Unusual interests:								
Reading	1	5.0	3	12.0	4	16.0	4	16.0
Non-reading	9	45.0	10	40.0	6	24.0	11	44.0
Reading and non-reading	--	--	1	4.0	3	12.0	2	8.0
No unusual interests	4	20.0	8	32.0	7	28.0	4	16.0
Blank	6	30.0	3	12.0	5	20.0	4	16.0
Not available	--	--	--	--	--	--	--	--

Table B.20 Academic problem as perceived by the teacher (N = 95)

Academic Problem	Year Block							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Students								
No academic problem	2	10.0	1	4.0	1	4.0	--	4 4.2
Deficiency of components of the reading act	14	70.0	11	44.0	10	40.0	11	44.0 48.4
Intellectual functioning	1	5.0	2	8.0	1	4.0	--	4 4.2
Sensory-perception	--	--	--	--	--	--	--	-- --
Emotional-social behavior	1	5.0	2	8.0	--	--	5	20.0 8.4
Deficiency in components of the reading act and intellectual functioning	--	--	3	12.0	4	16.0	5	20.0 12.6
Deficiency in components of the reading act and sensory-perception	--	--	--	--	3	12.0	--	3 3.2
Deficiency in components of the reading act and emotional-social behavior	2	10.0	2	8.0	3	12.0	2	8.0 9.5
Intellectual function and sensory-perception	--	--	--	--	1	4.0	--	1 1.1
Intellectual function and emotional-social behavior	--	--	4	16.0	1	4.0	1	4.0 6.3
Sensory-perception and emotional-social behavior	--	--	--	--	1	4.0	1	4.0 2.1

Table B.22 Approximate reading level of the textbook used by the student

Reading Level ^a	Year Block							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Students								
Non-reader	--	--	--	--	--	--	--	--
Pre-primer	1	5.0	3	12.0	4	16.0	3	12.0
Primer	--	--	1	4.0	--	--	--	--
First	--	--	--	--	1	4.0	--	--
Second	3	15.0	4	16.0	7	28.0	5	20.0
Third	--	--	4	16.0	2	8.0	2	8.0
Fourth	--	--	1	4.0	2	8.0	3	12.0
Fifth	1	5.0	3	12.0	1	4.0	--	--
Sixth	--	--	--	--	2	8.0	2	8.0
Seventh	1	5.0	1	4.0	1	4.0	1	4.0
Eighth	1	5.0	--	--	3	12.0	2	8.0
Ninth-twelfth	5	25.0	2	8.0	--	--	--	--
Blank	6	30.0	5	20.0	1	4.0	6	24.0
Not available	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	11	11.6	--	--	--	--	11	11.6
	1	1.1	--	--	--	--	1	1.1
	1	1.1	--	--	--	--	1	1.1
	19	20.0	--	--	--	--	19	20.0
	8	8.4	--	--	--	--	8	8.4
	6	6.3	--	--	--	--	6	6.3
	5	5.3	--	--	--	--	5	5.3
	4	4.2	--	--	--	--	4	4.2
	4	4.2	--	--	--	--	4	4.2
	6	6.3	--	--	--	--	6	6.3
	7	7.4	--	--	--	--	7	7.4
	18	18.9	--	--	--	--	18	18.9
	--	--	--	--	--	--	--	--

^aReading level of the textbook was determined in the following ways: (1) teacher indicated reading level of the textbook; (2) researcher obtained the reading level through the title of the book for pre-primers through sixth grade; and (3) researcher matched grade level with the title of the book for grades seven through twelve. (Valid cases = 90; missing cases = 5.)

Table B.23 Number of teachers who indicated the reading level for the textbooks used in the classroom (N = 95)

Year Block	Reading Level Given		Reading Level Not Given		Blank	
	(no.)	(%)	(no.)	(%)	(no.)	(%)
1957-1960	4	20.0	15	75.0	1	5.0
1961-1965	8	32.0	17	68.0	--	--
1966-1970	9	36.0	16	64.0	--	--
1971-1975	6	24.0	19	76.0	--	--
1957-1975	27	28.4	67	70.5	1	1.1

Table B.24 Well adjusted as perceived by the teacher (N = 95)

Year Block	Well Adjusted					
	Yes		No		Blank ^a	
	(no.)	(%)	(no.)	(%)	(no.)	(%)
1957-1960	14	70.0	3	15.0	3	15.0
1961-1965	17	68.0	7	28.0	1	4.0
1966-1970	16	64.0	8	32.0	1	4.0
1971-1975	15	60.0	9	36.0	1	4.0
Total	62	65.3	27	28.4	6	6.3

^aBlank here and in remaining tables indicates no answer.

Table B.25 Well liked by students as perceived by the teacher (N = 95)

Year Block	Well Liked by Students					
	Yes		No		Blank	
	(no.)	(%)	(no.)	(%)	(no.)	(%)
1957-1960	14	70.0	6	30.0	--	--
1961-1965	17	68.0	7	28.0	1	4.0
1966-1970	23	92.0	2	8.0	--	--
1971-1975	19	76.0	4	16.0	2	8.0
Total	73	76.8	19	20.0	3	3.2

Table B.26 Well liked by adults as perceived by the teacher (N = 95)

Year Block	Well Liked by Adults					
	Yes		No		Blank	
	(no.)	(%)	(no.)	(%)	(no.)	(%)
1957-1960	14	70.0	2	10.0	4	20.0
1961-1965	20	80.0	1	4.0	4	16.0
1966-1970	20	80.0	1	4.0	4	16.0
1971-1975	18	72.0	3	12.0	4	16.0
Total	72	75.8	7	7.4	16	16.8

Table B.31 Student's behavior when faced with a difficult task as perceived by the teacher (N = 95)^a

Perceived Behavior	Year Block							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Part A								
Withdraws from situation	5	25.0	6	24.0	12	48.0	10	40.0
Faces task intelligently	5	25.0	8	32.0	6	24.0	8	32.0
Acts impulsively	6	30.0	4	16.0	3	12.0	4	16.0
Blank	4	20.0	4	16.0	1	4.0	1	4.0
Part B: Combined Responses								
Withdraws from situation/faces task intelligently	--	--	1	4.0	1	4.0	--	--
Withdraws from situation/acts impulsively	--	--	2	8.0	2	8.0	1	4.0
Faces task intelligently/acts impulsively	--	--	--	--	--	--	1	4.0
Withdraws from situation/faces task intelligently/acts impulsively	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--

^aIn Tables B.19 through B.26, Part A records the teacher's response to the three behaviors provided on the questionnaire. Part B records those cases in which the teacher checked more than one behavior. Part B totals are not included in Part A.

Table B.32 Student's behavior when faced with a problem as perceived by the teacher (N = 95)

Perceived Behavior in Facing a Problem	Year Block							
	1957-1960				1966-1970			
	Students				Students			
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
<u>Part A</u>								
Reasonably persistent	10	50.0	9	36.0	7	28.0	9	36.0
Easily discouraged	8	40.0	14	56.0	18	72.0	11	44.0
Blindly aggressive	1	5.0	1	4.0	--	--	1	4.0
Blank	1	5.0	--	--	--	--	1	4.0
<u>Part B: Combined Responses</u>								
Reasonably persistent/easily discouraged	--	--	1	4.0	--	--	1	4.0
Reasonably persistent/blindly aggressive	--	--	--	--	--	--	--	--
Easily discouraged/blindly aggressive	--	--	--	--	--	--	2	8.0
Reasonably persistent/easily discouraged/blindly aggressive	--	--	--	--	--	--	--	--

Table B.33 Student's behavior in the classroom as perceived by the teacher (N = 95)

Perceived Classroom Behavior	Year Block							
	1957-1960				1966-1970			
	Students				Students			
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
<u>Part A</u>								
Emotionally calm	10	50.0	12	48.0	10	40.0	10	40.0
Apathetic	4	20.0	2	8.0	6	24.0	4	16.0
Excitable	6	30.0	8	32.0	6	24.0	7	28.0
Blank	--	--	1	4.0	1	4.0	1	4.0
<u>Part B: Combined Responses</u>								
Emotionally calm/apathetic	--	--	2	8.0	--	--	1	4.0
Emotionally calm/excitable	--	--	--	--	--	--	2	8.0
Apathetic/excitable	--	--	--	--	2	8.0	--	--
Emotionally calm/apathetic/excitable	--	--	--	--	--	--	--	--

Table B.35 Attendance record by grades: number of days absent converted into percentiles (N=95)

Days Absent		Percent- tile	Year Block									
			1957-1960		1961-1965		1966-1970		1971-1975		1957-1975	
			Students									
			(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
<u>Kindergarten:</u>												
0-18		10	4	20.0	14	56.0	14	56.0	15	60.0	47	49.5
19-36		20	2	10.0	2	8.0	3	12.0	3	12.0	10	10.5
37-54		30	1	5.0	--	--	--	--	--	--	1	1.1
55-72		40	--	--	--	--	--	--	--	--	--	--
73-90		50	--	--	--	--	--	--	--	--	--	--
91-108		60	--	--	--	--	--	--	--	--	--	--
No absence			--	--	--	--	--	--	--	--	--	--
Blank			9	45.0	9	36.0	8	32.0	5	20.0	31	32.6
Not available ^a			4	20.0	--	--	--	--	2	8.0	6	6.3
Not used ^b			--	--	--	--	--	--	--	--	--	--
<u>First Grade:</u>												
0-18		10	9	45.0	17	68.0	17	68.0	19	76.0	62	65.3
19-36		20	--	--	4	16.0	3	12.0	2	8.0	9	9.5
37-54		30	--	--	--	--	1	4.0	--	--	1	1.1
55-72		40	--	--	--	--	--	--	--	--	--	--
73-90		50	--	--	--	--	--	--	--	--	--	--
91-108		60	--	--	--	--	--	--	--	--	--	--
No absence			--	--	--	--	--	--	1	4.0	1	1.1
Blank			7	35.0	4	16.0	4	16.0	1	4.0	16	16.8
Not available			4	20.0	--	--	--	--	2	8.0	6	6.3
Not used			--	--	--	--	--	--	--	--	--	--
<u>Second Grade:</u>												
0-18		10	7	35.0	17	68.0	19	76.0	17	68.0	60	63.2
19-36		20	6	30.0	1	4.0	--	--	--	--	7	7.4
37-54		30	--	--	--	--	--	--	--	--	--	--
55-72		40	--	--	--	--	--	--	--	--	--	--
73-90		50	--	--	--	--	--	--	--	--	--	--
91-108		60	--	--	--	--	--	--	--	--	--	--
No absence			--	--	--	--	2	8.0	1	4.0	3	3.2
Blank			4	20.0	7	28.0	3	12.0	2	8.0	16	16.8
Not available			3	15.0	--	--	--	--	2	8.0	5	5.3
Not used			--	--	--	--	1	4.0	3	12.0	4	4.2
<u>Third Grade:</u>												
0-18		10	10	52.0	12	48.0	14	56.0	10	40.0	46	48.4
19-36		20	1	5.0	--	--	1	4.0	--	--	2	2.1
37-54		30	--	--	--	--	--	--	--	--	--	--
55-72		40	--	--	--	--	--	--	--	--	--	--
73-90		50	--	--	--	--	--	--	--	--	--	--
91-108		60	--	--	--	--	--	--	--	--	--	--
No absence			--	--	3	12.0	1	4.0	3	12.0	7	7.4
Blank			6	30.0	7	28.0	5	20.0	3	12.0	21	22.1
Not available			3	15.0	--	--	--	--	3	12.0	6	6.3
Not used			--	--	3	12.0	4	16.0	6	24.0	13	13.7
<u>Fourth Grade:</u>												
0-18		10	6	30.0	9	36.0	8	32.0	9	36.0	32	33.7
19-36		20	1	5.0	--	--	1	4.0	--	--	2	2.1
37-54		30	1	5.0	--	--	--	--	--	--	1	1.1
55-72		40	--	--	--	--	--	--	--	--	--	--
73-90		50	--	--	--	--	--	--	--	--	--	--
91-108		60	--	--	--	--	--	--	--	--	--	--
No absence			1	5.0	3	12.0	--	--	1	4.0	5	5.3
Blank			5	25.0	3	12.0	6	24.0	4	16.0	18	18.9
Not available			3	15.0	--	--	--	--	2	8.0	5	5.3
Not used			3	15.0	10	40.0	10	40.0	9	36.0	32	33.7

Table B.35--Continued

Days Absent		Percen- tile		Year Block									
				1957-1960		1961-1965		1966-1970		1971-1975		1957-1975	
				Students									
				(no.) (%)		(no.) (%)		(no.) (%)		(no.) (%)		(no.) (%)	
Fifth Grade:													
0-18	10	9	45.0			7	28.0	2	8.0	8	32.0	26	27.4
19-36	20	--	--	--	--	--	--	--	--	1	4.0	1	1.1
37-54	30	--	--	--	--	--	--	--	--	--	--	--	--
55-72	40	--	--	--	--	--	--	--	--	--	--	--	--
73-90	50	--	--	--	--	--	--	--	--	--	--	--	--
91-108	60	--	--	--	--	--	--	--	--	--	--	--	--
No absence		--	--	2	8.0	2	8.0	--	--	--	--	4	4.2
Blank		5	25.0	1	4.0	4	16.0	4	16.0	4	16.0	14	14.7
Not available ^a		3	15.0	--	--	1	4.0	2	8.0	2	8.0	6	6.3
Not used ^b		3	15.0	15	60.0	16	64.0	10	40.0	10	40.0	44	46.3
Sixth Grade:													
0-18	10	3	15.0	4	16.0	3	12.0	--	--	--	--	10	10.5
19-36	20	--	--	--	--	--	--	--	--	--	--	--	--
37-54	30	--	--	--	--	--	--	--	--	--	--	--	--
55-72	40	--	--	--	--	--	--	--	--	--	--	--	--
73-90	50	--	--	--	--	--	--	--	--	--	--	--	--
91-108	60	--	--	--	--	--	--	--	--	--	--	--	--
No absence		--	--	--	--	--	--	1	4.0	--	--	1	1.1
Blank		9	45.0	4	16.0	4	16.0	7	28.0	7	28.0	24	25.3
Not available		3	15.0	--	--	--	--	2	8.0	2	8.0	5	5.3
Not used		5	25.0	17	68.0	18	72.0	15	60.0	15	60.0	55	57.9
Seventh and Eighth Grades:													
1-36	10	1	5.0	3	12.0	2	8.0	1	4.0	--	--	7	7.4
37-72	20	1	5.0	--	--	--	--	--	--	--	--	1	1.1
73-108	30	--	--	--	--	--	--	--	--	--	--	--	--
109-144	40	--	--	--	--	--	--	--	--	--	--	--	--
145-180	50	--	--	--	--	--	--	--	--	--	--	--	--
No absence		--	--	--	--	1	4.0	--	--	--	--	1	1.1
Blank		6	30.0	4	16.0	1	4.0	2	8.0	2	8.0	13	13.7
Not available		3	15.0	--	--	--	--	2	8.0	2	8.0	5	5.3
Not used		9	45.0	18	72.0	21	84.0	20	80.0	20	80.0	68	71.6
Ninth Through Twelfth Grades:													
72	10	1	5.0	1	4.0	--	--	--	--	--	--	2	2.1
Blank		4	20.0	2	8.0	--	--	1	4.0	1	4.0	7	7.4
Not available		2	10.0	--	--	--	--	--	--	--	--	2	2.1
Not used		13	65.0	22	88.0	25	100.0	24	96.0	24	96.0	84	88.4

^aNot available means that the forms were returned unanswered.^bNot used means that certain parts of the form did not pertain to the student's grade level.

Table B.38 Total number of children in the family (N = 95)

Number of Children in the Family	Year Block							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Students								
One	--	--	1	4.0	--	--	--	1 1.1
Two	6	30.0	8	32.0	3	12.0	3	12.0
Three	7	35.0	8	32.0	5	20.0	8	32.0
Four	4	20.0	5	20.0	6	24.0	11	44.0
Five	1	5.0	2	8.0	8	32.0	1	4.0
Six	--	--	--	--	1	4.0	1	4.0
Seven	2	10.0	1	4.0	--	--	1	4.0
Ten	--	--	--	--	2	8.0	--	--
Blank	--	--	--	--	--	--	--	--

Table B.40 Number of homes which had extended family members (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	
Extended family members in home	--	--	2	8.0	2	4
No extended family members in home	9	4	13	52.0	11	37
Blank	--	--	3	12.0	12	15
Not available	11	21	7	28.0	--	39

Table B.41 Number of homes in which a language other than English was spoken (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	
Another language in home	--	1	--	1	4.0	2
No other language in home	9	3	14	56.0	13	39
Blank	--	--	4	16.0	11	15
Not available	11	21	7	28.0	--	39

Table B.46 Parents' reading materials (N = 95)

Parents' Reading Materials	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Parents					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
<u>Father's:</u>						
Magazines	3 15.0	3 12.0	4 16.0	2 8.0	12 12.6	
Newspaper	4 2.0	3 12.0	5 20.0	5 20.0	17 17.9	
Books	1 5.0	2 8.0	4 20.0	2 8.0	9 9.5	
Magazines/newspaper	4 20.0	4 16.0	3 12.0	5 20.0	16 16.8	
Magazines/books	-- --	3 12.0	1 4.0	4 16.0	8 8.4	
Newspaper/books	1 5.0	2 8.0	2 8.0	1 4.0	6 6.3	
Magazines/newspaper/books	4 20.0	5 20.0	4 16.0	2 8.0	15 15.8	
Blank	3 15.0	3 12.0	2 8.0	4 16.0	12 12.6	
<u>Mother's:</u>						
Magazines	2 10.0	3 12.0	4 16.0	1 4.0	10 10.5	
Newspaper	4 20.0	3 12.0	7 28.0	3 12.0	17 17.9	
Books	2 10.0	3 12.0	5 20.0	3 12.0	13 13.7	
Magazines/newspaper	4 20.0	4 16.0	-- --	5 20.0	13 13.7	
Magazines/books	-- --	3 12.0	2 8.0	2 8.0	7 7.4	
Newspaper/books	2 10.0	2 8.0	2 8.0	3 12.0	9 9.5	
Magazines/newspaper/books	4 20.0	6 24.0	3 12.0	7 28.0	20 21.1	
Blank	2 10.0	1 4.0	2 8.0	1 4.0	6 6.3	

Table B.49 Parents' report of acts which were punishable (N = 95)

	Year Block							
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975			
	Students							
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Punishable Acts								
Father's Report:								
Failure to assume responsibility	--	--	2	8.0	3	12.0	5	5.3
Asocial	--	--	2	8.0	3	12.0	5	5.3
Breaking parents' rules	--	--	6	24.0	8	32.0	14	14.7
Talking back; arguing	--	--	2	8.0	5	20.0	7	7.4
Being noisy; fooling around	--	--	1	4.0	--	--	1	1.1
Blank	--	--	4	16.0	5	20.0	9	9.5
Not available	20	100.0	8	32.0	--	--	53	55.8
Mother's Report:								
Failure to assume responsibility	--	--	1	4.0	6	24.0	7	7.4
Asocial	--	--	3	12.0	5	20.0	8	8.4
Breaking parents' rules	--	--	7	28.0	9	36.0	16	16.8
Talking back; arguing	--	--	2	8.0	--	--	2	2.1
Being noisy; fooling around	--	--	--	--	--	--	--	--
Blank	--	--	4	16.0	5	20.0	9	9.5
Not available	20	100.0	8	32.0	--	--	53	55.8

Table B.50 Parent responsible for punishing (N=95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
Father	-- --	-- --	1 4.0	1 4.0	2 2.1	
Mother	-- --	-- --	12 48.0	14 56.0	26 27.4	
Both	-- --	-- --	4 20.0	10 40.0	14 14.7	
Blank	-- --	-- --	-- --	-- --	-- --	
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8	

Table B.53 Parents' state of health (N = 95)

Parents' State of Health	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	(no.)	(no.)	(no.)	(no.)	(no.)	(%)
Parents						
Father's Health:	(no.)	(no.)	(no.)	(no.)	(no.)	(%)
Excellent	1	4	2	1	8	8.4
Good	8	15	19	22	64	67.4
Fair	1	1	--	--	2	2.1
Poor	--	--	3	--	3	3.2
Blank	--	1	--	2	3	3.2
Not available ^a	10	4	1	--	15	15.8
Mother's Health:	(no.)	(no.)	(no.)	(no.)	(no.)	(%)
Excellent	--	3	1	2	6	6.3
Good	8	15	19	21	63	66.3
Fair	2	1	3	2	8	8.4
Poor	--	--	1	--	1	1.1
Blank	--	2	--	--	2	2.1
Not available ^a	10	4	1	--	15	15.8

^aThe questionnaire was revised three times between 1956 and 1975; therefore, all questions do not appear on every form. Not available means that the question was not on the form.

Table B.54 Parents' physical disabilities (N = 95)

Parents' Physical Disabilities	Year Block							
	Parents							
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975			
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
<u>Father's:</u>								
Disability	--	--	3 12.0	1 4.0	4 4.2			
No disability	--	--	21 84.0	23 92.0	44 46.3			
Blank	--	--	--	1 4.0	1 1.1			
Not available	20 100.0	25 100.0	1 4.0	--	46 48.4			
<u>Mother's:</u>								
Disability	--	--	2 8.0	--	2 2.1			
No disability	--	--	22 88.0	25 100.0	47 49.5			
Blank	--	--	--	--	--			
Not available	20 100.0	25 100.0	1 4.0	--	46 48.4			

Table B.57 Parents' school failures (N = 95)

	Year Block							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
<u>Father's:</u>								
Failure	--	--	2	8.0	3	12.0	2	8.0
No failure	8	40.0	19	76.0	15	60.0	11	44.0
Blank	3	15.0	--	--	6	24.0	12	48.0
Not available	9	45.0	4	16.0	1	4.0	--	--
<u>Mother's:</u>								
Failure	1	5.0	1	4.0	--	--	1	4.0
No failure	7	35.0	20	80.0	18	68.0	13	52.0
Blank	3	15.0	--	--	6	24.0	11	44.0
Not available	9	45.0	4	16.0	1	4.0	--	--

Table B.59 Parents' occupations (N = 95)

[illegible]

Table B.61 Parents' reports regarding length of term of pregnancy (N=95)

Length of Term of Pregnancy	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
Full	--	--	16 64.0	23 92.0	39	41.1
Early	--	--	--	1 4.0	1	1.1
Late	--	--	1 4.0	1 4.0	2	2.1
Blank	--	--	--	--	--	--
Not available	20 100.0	25 100.0	8 32.0	--	53	55.8

Table B.62 Student's weight at birth (in pounds and ounces) (N=95)

Birth Weight in Pounds and Ounces	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
5 to 6.15	--	--	6 24.0	7 28.0	13	13.7
7 to 8.15	--	--	8 32.0	15 60.0	23	24.2
9 to 10.15	--	--	2 8.0	2 8.0	4	4.2
11 to 12.15	--	--	1 4.0	1 4.0	2	2.1
Blank	--	--	--	--	--	--
Not available	20 100.0	25 100.0	8 32.0	--	53	55.8

Table B.63 Number of parents who indicated an unusual condition associated with pregnancy (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
Unusual condition	-- --	-- --	1 4.0	5 20.0	6 6.3	
No unusual condition	-- --	-- --	13 52.0	17 68.0	30 31.6	
Blank	-- --	-- --	3 12.0	3 12.0	6 6.3	
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8	

Table B.64 Normalcy of student's birth (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
Normal birth	10 50.0	15 60.0	18 72.0	19 76.0	62 65.3	
Birth not normal	1 5.0	4 16.0	5 20.0	6 24.0	16 16.8	
Blank	-- --	2 8.0	1 4.0	-- --	3 3.2	
Not available	9 45.0	4 16.0	1 4.0	-- --	14 14.7	

Table B.65 Number of foster or adopted children (N = 95)

	Year Block					
	1957-1960		1961-1965		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)
Foster or adopted	--	--	2	8.0	--	--
Not foster or adopted	11	55.0	19	76.0	20	80.0
Blank	--	--	--	--	1	4.0
Not available	9	45.0	4	16.0	4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
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					22	88.0
					1	4.0
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					4	16.0
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					22	88.0
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					4	16.0
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					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
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					4	16.0
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					22	88.0
					1	4.0
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					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
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					4	16.0
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					22	88.0
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					4	16.0
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					22	88.0
					1	4.0
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					4	16.0
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					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					2	8.0
					22	88.0
					1	4.0
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					4	16.0
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					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
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					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
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					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
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					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0
					1	4.0
					--	--
					4	16.0
					2	8.0
					22	88.0

Table B.68 General development of student as reported by parent (N = 95)

General Development	Year Block							
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975			
	Students							
	(no.)	(%)	(no.)	(%)	(no.)	(%)		
Below average	--	--	5	20.0	7	28.0	12	12.6
Average	--	--	12	48.0	15	60.0	27	28.4
Above average	--	--	8	32.0	--	--	8	8.4
Blank	--	--	--	--	3	12.0	3	3.2
Not available	20	100.0	25	100.0	--	--	45	47.4

Table B.69 Number of students who had childhood diseases (N = 95)

Childhood Diseases	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
No disease	2 10.0	6 24.0	-- --	1 4.0	9 9.5	
Measles	2 10.0	-- --	3 12.0	-- --	5 5.3	
Mumps	-- --	-- --	-- --	-- --	-- --	
Chicken pox	-- --	-- --	2 8.0	2 8.0	4 4.2	
Tonsilectomy	-- --	1 4.0	2 8.0	5 20.0	8 8.4	
Measles/mumps	-- --	-- --	1 4.0	-- --	1 1.1	
Measles/chicken pox	1 5.0	3 12.0	2 8.0	-- --	6 6.3	
Measles/tonsilectomy	1 5.0	-- --	-- --	-- --	1 1.1	
Measles/mumps/ chicken pox	4 20.0	2 8.0	1 4.0	2 8.0	9 9.5	
Measles/mumps/ chicken pox/ tonsilectomy	-- --	1 4.0	1 4.0	2 8.0	4 4.2	
Mumps/chicken pox	1 5.0	-- --	1 4.0	3 12.0	5 5.3	
Mumps/tonsilectomy	-- --	-- --	1 4.0	-- --	1 1.1	
Chicken pox/ tonsilectomy	-- --	-- --	-- --	6 24.0	6 6.3	
Chicken pox/measles/ tonsilectomy	1 5.0	1 4.0	-- --	1 4.0	3 3.2	
Measles/mumps/ tonsilectomy	-- --	-- --	1 4.0	-- --	1 1.1	
Other	4 20.0	8 32.0	5 20.0	2 8.0	19 20.0	
Blank	4 20.0	3 12.0	5 20.0	1 4.0	13 13.7	
Not available	-- --	-- --	-- --	-- --	-- --	

Table B.70 Number of students who had a health problem and when they had had their last physical examination (N = 95)

	Year Block							
	Students							
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975			
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Health Problem	--	--	--	--	4	16.0	4	4.2
Health Problem	--	--	17	68.0	20	80.0	37	38.9
No health problem	--	--	--	--	1	4.0	1	1.1
Blank	--	--	--	--	--	--	53	55.8
Not available	20	100.0	8	32.0	--	--	--	--
<u>Last Physical Exam</u>								
Within the year	8	40.0	16	64.0	20	80.0	48	50.5
Within two years	1	5.0	2	8.0	5	20.0	8	8.4
Blank	--	--	--	--	--	--	--	--
Not available	11	55.0	7	28.0	--	--	39	41.1

Table B.76 Number of students who had vision difficulties and what those difficulties were (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.)	(%)	(no.)	(%)	(no.)	(%)
<u>Vision Defects:</u>						
Vision defects	3	15.0	6	24.0		
No vision defects	9	45.0	14	56.0		
Blank	--	--	1	4.0		
Not available	8	40.0	4	16.0	25	100.0
					12	12.6
					29	30.5
					1	1.1
					53	55.8
<u>Vision Difficulty:</u>						
Far sightedness	1	5.0	--	--		
Near sightedness	1	5.0	1	4.0	1	1.1
Resting eyes/ temp. weakness	1	5.0	1	4.0	1	4.0
Unknown	1	5.0	--	--	2	2.1
Lazy eye	--	--	--	--	2	2.1
Astigmatism	--	--	--	--	1	1.1
Blank	1	5.0	--	--	1	1.1
Not available	11	55.0	21	86.0	2	2.1
					81	85.3

Table B.77 Number of students who wore eye glasses (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	
Glasses before age 7	1 5.0	-- --	-- --	3 12.0	4 4.2	
Glasses after age 7	3 15.0	-- --	2 8.0	1 4.0	6 6.3	
No Glasses	-- --	3 12.0	1 4.0	20 80.0	24 25.3	
Blank	6 30.0	1 4.0	15 60.0	-- --	22 23.2	
Not available	10 50.0	21 84.0	7 28.0	1 4.0	39 41.1	

Table B.78 Number of students who had hearing defect (N = 95)

	Year Blocks					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	
Hearing defect	2 10.0	-- --	-- --	4 16.0	6 6.3	
No hearing defect	18 90.0	25 100.0	24 96.0	20 80.0	87 91.6	
Blank	-- --	-- --	1 4.0	1 4.0	2 2.1	
Not available	-- --	-- --	-- --	-- --	-- --	

Table B.80 Number of students who had nightmares (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.)	(%)	(no.)	(%)	(no.)	(%)
Nightmares	--	--	3	12.0	6	24.0
No nightmares	--	--	12	48.0	18	72.0
Blank	--	--	2	8.0	1	4.0
Not available	20	100.0	8	32.0	--	--
					10	10.5
					30	31.6
					3	3.2
					52	54.7

Table B.81 Number of students who had temper tantrums (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.)	(%)	(no.)	(%)	(no.)	(%)
Temper tantrums	--	--	3	12.0	6	24.0
No temper tantrums	--	--	11	44.0	18	72.0
Blank	--	--	3	12.0	1	4.0
Not available	20	100.0	8	32.0	--	--
					10	10.5
					29	30.5
					4	4.2
					52	54.7

Table B.82 Number of students who were day dreamers (N = 95)

	Year Block							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Daydreaming	7	35.0	13	52.0	11	44.0	8	32.0
No daydreaming	4	20.0	8	32.0	11	44.0	14	56.0
Blank	9	45.0	4	16.0	3	12.0	3	12.0
Not available	--	--	--	--	--	--	--	--

Table B.83 Number of students who were receiving medication (N = 95)

Receiving Medication	Year Blocks							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
Were receiving	--	--	--	--	1	4.0	4	16.0
Not receiving	--	--	--	--	16	64.0	21	84.0
Blank	--	--	--	--	--	--	--	--
Not available	20	100.0	25	100.0	8	32.0	--	--

Table B.84 Number of students who were self reliant, dependent on others, gave up easily, and who manifested anxiety, tension, fears, or insecurity as perceived by parent (N = 95)

	Year Block				
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975
	Students				
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
<u>Self Reliance:</u>					
Self reliant	-- --	-- --	13 52.0	22 88.0	35 36.8
Not self reliant	-- --	-- --	1 4.0	-- --	1 1.1
Blank	-- --	-- --	3 12.0	3 12.0	6 6.3
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8
<u>Dependency:</u>					
Dependent	-- --	-- --	8 32.0	12 48.0	20 21.1
Not dependent	-- --	-- --	6 24.0	5 20.0	11 11.6
Blank	-- --	-- --	3 12.0	8 32.0	11 11.6
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8
<u>Gave Up Easily:</u>					
Give up easily	-- --	-- --	14 56.0	18 72.0	32 33.7
Do not give up easily	-- --	-- --	3 12.0	6 24.0	9 9.5
Blank	-- --	-- --	-- --	1 4.0	1 1.1
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8
<u>Manifestations:</u>					
Manifestations	-- --	-- --	8 32.0	15 60.0	23 24.2
No manifestations	-- --	-- --	7 28.0	9 36.0	16 16.8
Blank	-- --	-- --	2 8.0	1 4.0	3 3.2
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8

Table B.85 Number of students who hung up clothes and stored toys as reported by parent (N=95)

Hung Up Clothes and Stored Toys	Year Block					
	1957-1960		1961-1965		1966-1970	
	(no.)	(%)	(no.)	(%)	(no.)	(%)
On his own	2	10.0	7	28.0	1	4.0
Not on his own	3	15.0	--	--	1	4.0
Sometimes/not always	2	10.0	4	16.0	1	4.0
Has to be told	4	20.0	6	24.0	3	12.0
Parental pressure	--	--	4	16.0	1	4.0
Blank	--	--	--	--	--	--
Not available	9	45.0	4	16.0	18	72.0
					25	100.0
					10	10.5
					4	4.2
					7	7.4
					13	13.7
					5	5.3
					--	--
					56	58.9

Table B.86 Student's attitude towards school (N=95)

Student's Attitude Towards School	Year Block					
	1957-1960		1961-1965		1966-1970	
	(no.)	(%)	(no.)	(%)	(no.)	(%)
Good/normal	6	30.0	2	8.0	14	56.0
Not good/fair/an imposition	3	15.0	2	8.0	4	16.0
Blank	--	--	--	--	--	--
Not available	11	55.0	21	84.0	7	28.0
					15	60.0
					10	40.0
					--	--
					37	38.9
					19	20.0
					--	--
					39	41.1

Table B.87 Possible causes for student's difficulty and attitude toward reading as reported by parent (N = 95)

	Year Block							
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975			
	Students							
	(no.)	(%)	(no.)	(%)	(no.)	(%)		
<u>Possible Cause for Reading Difficulty:</u>								
No idea	--	--	3	12.0	5	20.0	8	8.4
Poor instruction/ school setting	--	--	3	12.0	4	16.0	7	7.4
Phonetics/sounds reversals	--	--	4	16.0	6	24.0	10	10.5
Blame parents	--	--	--	--	3	12.0	3	3.2
Blame child	--	--	5	20.0	6	24.0	11	11.6
Blank	--	--	2	8.0	1	4.0	3	3.2
Not available	20	100.0	8	32.0	--	--	53	55.8
<u>Attitude Towards Reading:</u>								
Wants to read	--	--	8	32.0	7	28.0	15	15.8
Does not like to read	--	--	3	12.0	8	32.0	11	11.6
Lack of motivation	--	--	5	20.0	9	36.0	14	14.7
Short attention span	--	--	1	4.0	--	--	1	1.1
Blank	--	--	--	--	1	4.0	1	1.1
Not available	20	100.0	8	32.0	--	--	53	55.8

Table B.88 Student's usual disposition as perceived by the parent (N = 95)

Student's Usual Disposition	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.)	(%)	(no.)	(%)	(no.)	(%)
Cheerful/happy/ pleasant	6	30.0	13	52.0	8	32.0
Cooperative/fair/ good	11	55.0	9	36.0	7	28.0
Unhappy	--	--	1	4.0	2	8.0
Changes moods quickly	1	5.0	2	8.0	8	32.0
Blank	2	10.0	--	--	--	--
Not available	--	--	--	--	1	4.0
					11	44.0
					27	28.4
					3	3.2
					24	25.3
					2	2.1
					1	1.1

Table B.90 Number of students who were difficult to control at home as perceived by the parent
(N = 95)

Difficult to Control at Home	Year Block									
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975					
	Students									
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)		
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)		
Difficult to control	1	5.0	3	12.0	1	4.0	--	--	5	5.3
Not difficult to control	10	55.0	18	72.0	6	24.0	--	--	34	35.8
Blank	--	--	--	--	--	--	--	--	--	--
Not available	9	45.0	4	16.0	18	72.0	25	100.0	56	58.9

Table B.91 Relationship student had with neighborhood children, with parents, and with others in the family as perceived by parent (N=95)

	Year Block				
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975
	Students				
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
<u>Relationship With the Neighborhood Children:</u>					
Gets along	9 45.0	19 76.0	24 96.0	22 88.0	74 77.9
Doesn't get along	1 5.0	1 4.0	-- --	3 12.0	5 5.3
Blank	-- --	1 4.0	-- --	-- --	1 1.1
Not available	10 50.0	4 16.0	1 4.0	-- --	15 15.8
<u>Relationship With Parents:</u>					
Gets along	-- --	-- --	15 60.0	21 84.0	36 37.9
Doesn't get along	-- --	-- --	1 4.0	1 4.0	2 2.1
Blank	-- --	-- --	1 4.0	3 12.0	4 4.2
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8
<u>Relationship With Others in the Family:</u>					
Gets along	19 95.0	21 84.0	22 88.0	20 80.0	82 86.3
Doesn't get along	-- --	3 12.0	2 8.0	4 16.0	9 9.5
Blank	1 5.0	1 4.0	1 4.0	1 4.0	4 4.2

Table B.96 Number of students who had frequent school changes and grade when student changed schools (N = 95)

	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.)	(no.)	(no.)	(no.)	(no.)	(no.)
	(%)	(%)	(%)	(%)	(%)	(%)
<u>School Changes:</u>						
Frequent	4	2	--	--	6	6.3
Not frequent	6	3	1	--	10	10.5
Not available	10	20	24	25	79	83.2
<u>Grade When Student Changed Schools:</u>						
First through third	3	2	--	--	5	5.3
Fourth through sixth	--	1	--	--	1	1.1
Seventh through twelfth	2	1	--	--	3	3.2
Blank	5	1	1	--	7	7.4
Not available	10	20	24	25	79	83.2

Table B.97 Number of failures (N = 95)

Number of Failures	Year Block							
	Students							
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975			
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.)	(%)	(no.) (%)
One	3 15	10 40.0	11 44.0	4 16.0	28 29.5			
Two	-- --	-- --	-- --	-- --	-- --			
Three	-- --	1 4.0	-- --	-- --	1 1.1			
Blank ^a	17 85.0	14 56.0	14 56.0	21 84.0	66 69.5			

^aIt is not clear whether a blank indicates no failure or whether the question was unanswered.

Table B.99 Subject in which student showed least achievement as reported by parent (N = 95)

Subject in Which Student Showed Least Achievement	Year Block									
	1957-1960		1961-1965		1966-1970		1971-1975			
	Students									
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)		
Reading	3	15.0	1	4.0	12	48.0	22	88.0	38	40.0
Mathematics	3	15.0	--	--	1	4.0	1	4.0	5	5.3
Social Science	--	--	--	--	--	--	--	--	--	--
English	1	5.0	1	4.0	1	4.0	1	4.0	4	4.2
Science	--	--	--	--	--	--	--	--	--	--
Geography	--	--	--	--	--	--	--	--	--	--
History	--	--	1	4.0	--	--	--	--	1	1.1
Spelling	--	--	--	--	--	--	--	--	--	--
Penmanship	--	--	--	--	--	--	--	--	--	--
Drawing	--	--	--	--	--	--	--	--	--	--
Shop	1	5.0	--	--	--	--	--	--	1	1.1
All the same	--	--	1	4.0	--	--	--	--	1	1.1
Blank	1	5.0	--	--	4	16.0	1	4.0	6	6.3
Not available	11	55.0	21	86.0	7	28.0	--	--	39	41.1

Table B.103 Grade in which student was tutored in reading (N = 95)

Grade in Which Student Was Tutored	Year Block							
	1957-1960		1961-1965		1966-1970		1971-1975	
	(no.)	(%)	(no.)	(%)	(no.)	(%)	(no.)	(%)
First	--	--	--	--	1	4.0	2	8.0
Second	--	--	--	--	--	--	2	8.0
Third	--	--	--	--	--	--	1	4.0
Fourth	--	--	--	--	--	--	--	--
Fifth	--	--	--	--	--	--	--	--
Sixth	--	--	--	--	--	--	--	--
Seventh through eighth	1	5.0	--	--	--	--	1	4.0
Kindergarten through fourth	--	--	--	--	--	--	3	12.0
Blank	8	40.0	4	16.0	17	68.0	15	60.0
Not available	11	55.0	21	84.0	7	28.0	--	--

Table B.104 Length of time student was tutored before testing (N = 95)

Length of Time Tutored Before Testing	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
Long term/systematic	-- --	-- --	3 12.0	7 28.0	10 10.5	
Very little/summer term/systematic	2 10.0	1 4.0	1 4.0	7 28.0	11 11.6	
Short intervals/systematic	2 10.0	-- --	2 8.0	-- --	4 4.2	
Blank	5 25.0	3 12.0	12 48.0	11 44.0	31 32.6	
Not available	11 55.0	21 84.0	7 28.0	-- --	39 41.1	

Table B.105 Number of students who received assistance in reading prior to testing (N = 95)

Assistance Prior to Testing	Year Block					
	1957-1960	1961-1965	1966-1970	1971-1975	1957-1975	
	Students					
	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)	(no.) (%)
Assisted in reading	-- --	-- --	9 36.0	10 40.0	19 20.0	
Not assisted in reading	-- --	-- --	7 28.0	14 56.0	21 22.1	
Blank	-- --	-- --	1 4.0	1 4.0	2 2.1	
Not available	20 100.0	25 100.0	8 32.0	-- --	53 55.8	

APPENDIX C

SIGNIFICANT DATA FOR THE HYPOTHESES

GRADES 1-12

HO: 1.1

Table C.1 Sex of student by well adjusted as perceived by the teacher
(Grades 1-12)

Sex of Student	Well Adjusted as Perceived by the Teacher		Row Total
	Yes	No	
Male	232 51.0 76.6 41.8	223 49.0 88.5 40.2	455 82.0
Female	71 71.0 23.4 12.8	29 29.0 11.5 5.2	100 18.0
Column total	303 54.6	252 45.4	555 100.0

Corrected chi square = 12.44841; 1 degree of freedom; significance = .0004.
 Number of missing observations = 85.

HO: 1.1

Table C.2 Sex of student by number of failures (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Number of Failures				Row Total
	None	One	Two	Three	
Sex of Students					
Male	330	171	12	2	515
	64.1	33.2	2.3	0.4	80.7
	76.2	89.5	100.0	100.0	
	51.7	26.8	1.9	0.3	
Female	103	20	0	0	123
	83.7	16.3	0	0	19.3
	23.8	10.5	0	0	
	16.1	3.1	0	0	
Column total	433	191	12	2	638
	67.9	29.9	1.9	0.3	100.0

Raw chi square = 18.52071; 3 degrees of freedom; significance = .0003.
 Number of missing observations = 2.

H0: 1.5

Table C.3 Sex of student by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage Sex of Student	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Withdraws from a Situation	Faces the Problem Intelligently	Acts Impulsively		
Male	251 58.9 84.5 47.6	87 20.4 70.7 16.5	88 20.7 82.2 16.7		426 80.8
Female	46 45.5 15.5 8.7	36 35.6 29.3 6.8	19 18.8 17.8 3.6		101 19.2
Column total	297 56.4	123 23.3	107 20.3		527 100.0

Raw chi square = 10.83302; 2 degrees of freedom; significance = .0044.
 Number of missing observations = 113.

H0: 1.6

Table C.4 Sex of student by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher				Row Total
	Easily Discouraged	Reasonably Persistent	Blindly Aggressive		
Sex of student					
Male	302 64.4 85.1 52.2	142 30.3 72.4 24.5	25 5.3 89.3 4.3		469 81.0
Female	53 48.2 14.9 9.2	54 49.1 27.6 9.3	3 2.7 10.7 0.5		110 19.0
Column total	355 61.3	196 33.9	28 4.8		579 100.0

Raw chi square = 14.38408; 2 degrees of freedom; significance = .0008.
 Number of missing observations = 61.

HO: 2.1

Table C.5 Student's Verbal I.Q. below 100 by well adjusted as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Verbal I.Q. Below 100		Row Total
	Yes	No	
Well Adjusted as Perceived by the Teacher			
Yes	158 57.2 49.5 31.3	118 42.8 63.4 23.4	276 54.7
No	161 70.3 50.5 31.9	68 29.7 36.6 13.5	229 45.3
Column total	319 63.2	186 36.8	505 100.0

Corrected chi square = 8.62156; 1 degree of freedom; significance = .0033.
 Number of missing observations = 135.

HO: 2.2

Table C.6 Student's Verbal I.Q. below 100 by number of failures
(Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Verbal I.Q. Below 100		Row Total
	Yes	No	
Number of Failures			
None	224	173	397
	56.4	43.6	68.3
	60.1	83.2	
	38.6	29.8	
One	138	34	172
	80.2	19.8	29.6
	37.0	16.3	
	23.8	5.9	
Two	9	1	10
	90.0	10.0	1.7
	2.4	0.5	
	1.5	0.2	
Three	2	0	2
	100.0	0	0.3
	0.5	0	
	0.3	0	
Column total	373	208	581
	64.2	35.8	100.0

Raw chi square = 33.69398; 3 degrees of freedom; significance = .0000.
 Number of missing observations = 59.

HO: 2.2

Table C.7 Student's Performance I.Q. below 100 by number of failures
(Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Performance I.Q. Below 100		Row Total
Number of Failures	Yes	No	
None	159	238	397
	40.1	59.9	68.3
	59.1	76.3	
	27.4	41.0	
One	102	70	172
	59.3	40.7	29.6
	37.9	22.4	
	17.6	12.0	
Two	7	3	10
	70.0	30.0	1.7
	2.6	1.0	
	1.2	0.5	
Three	1	1	2
	50.0	50.0	0.3
	0.4	0.3	
	0.2	0.2	
Column total	269 46.3	312 53.7	581 100.0

Raw chi square = 20.20210; 3 degrees of freedom; significance = .0002.
 Number of missing observations = 59.

HO: 2.2

Table C.8 Student's Full Scale I.Q. below 100 by number of failures
(Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Students Full Scale I.Q. Below 100		Row Total
	Yes	No	
None	191 48.1 57.9 32.9	206 51.9 82.1 35.5	397 68.3
One	131 76.2 39.7 22.5	41 23.8 16.3 7.1	172 29.6
Two	7 70.0 2.1 1.2	3 30.0 1.2 0.5	10 1.7
Three	1 50.0 0.3 0.2	1 50.0 0.4 0.2	2 0.3
Column total	330 56.8	251 43.2	581 100.0

Raw chi square = 39.24350; 3 degrees of freedom; significance = .0000.
 Number of missing observations = 59.

HO: 2.6

Table C.9 Student's Verbal I.Q. below 100 by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Student's Verbal I.Q. Below 100				
Yes	193 62.7 71.2 40.5	57 18.5 52.8 12.0	58 18.8 59.8 12.2	308 64.7
No	78 46.4 28.8 16.4	51 30.4 47.2 10.7	39 23.2 40.2 8.2	168 35.3
Column total	271 56.9	108 22.7	97 20.4	476 100.0

Raw chi square = 12.78524; 2 degrees of freedom; significance = .0017.
 Number of missing observations = 164.

H0: 2.6

Table C.10 Student's Performance I.Q. below 100 by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Student's Performance I.Q. Below 100				
Yes	142 63.4 52.4 29.8	38 17.0 35.2 8.0	44 19.6 45.4 9.2	224 47.1
No	129 51.2 47.6 27.1	70 27.8 64.8 14.7	53 21.0 54.6 11.1	252 52.9
Column total	271 56.9	108 22.7	97 20.4	476 100.0

Raw chi square = 9.32536; 2 degrees of freedom; significance = .0094.
 Number of missing observations = 164.

HO: 2.6

Table C.11 Student's Full Scale I.Q. below 100 by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	Row Total
Student's Full Scale I.Q. Below 100				
Yes	171 62.9 63.1 35.9	52 19.1 48.1 10.9	49 18.0 50.5 10.3	272 57.1
No	100 49.0 36.9 21.0	56 27.5 21.9 11.8	48 23.5 49.5 10.1	204 42.9
Column total	271 56.9	108 22.7	97 20.4	476 100.0

Raw chi square = 9.23410; 2 degrees of freedom; significance = .0099.
 Number of missing observations = 164.

HO: 2.7

Table C.12 Student's Verbal I.Q. below 100 by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher			Row Total
	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Student's Verbal I.Q. Below 100				
Yes	228 67.7 69.5 43.1	94 27.9 53.4 17.8	15 4.5 60.0 2.8	337 63.7
No	100 52.1 30.5 18.9	82 42.7 46.6 15.5	10 5.2 40.0 1.9	192 36.3
Column total	328 62.0	176 33.3	25 4.7	529 100.0

Raw chi square = 13.00142; 2 degrees of freedom; significance = .0015.
 Number of missing observations = 111.

H0: 2.9

Table C.13 Student's Verbal I.Q. below 100 by student's leadership as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher			Row Total
	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Student's Verbal I.Q. Below 100				
Yes	193 53.9 71.7 35.4	127 35.5 63.5 23.3	38 10.6 50.0 7.0	358 65.7
No	76 40.6 28.3 13.9	73 39.0 36.5 13.4	38 20.3 50.0 7.0	187 34.3
Column total	269 49.4	200 36.7	76 13.9	545 100.0

Raw chi square = 13.10545; 2 degrees of freedom; significance = .0014.
 Number of missing observations = 95.

HO: 2.8

Table C.14 Student's Full Scale I.Q. below 100 by student's leadership as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Full Scale I.Q. Below 100	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Yes		174 55.1 64.7 31.9	106 33.5 53.0 19.4	36 11.4 47.4 6.6	316 58.0
No		95 41.5 35.3 17.4	94 41.0 47.0 17.2	40 17.5 52.6 7.3	229 42.0
Column total		269 49.4	200 36.7	76 13.9	545 100.0

Raw chi square = 10.51105; 2 degrees of freedom; significance = .0052.
Number of missing observations = 95.

HO: 2.11

Table C.15 Student's Verbal I.Q. below 100 by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentages Total Percentage	Student's Communication Pattern Perceived by the Teacher			Row Total
	Quiet	Normally Communicative	Very Talkative	
Student's Verbal I.Q. Below 100				
Yes	118 34.3 60.5 22.0	154 44.8 72.3 28.7	72 20.9 55.8 13.4	344 64.1
No	77 39.9 39.5 14.3	59 30.6 27.7 11.0	57 29.5 44.2 10.6	193 35.9
Column total	195 36.3	213 39.7	129 24.0	537 100.0

Raw chi square = 11.15787; 2 degrees of freedom; significance = .0038.
 Number of missing observations = 103.

HO: 3.4

Table C.16 Academic problem as perceived by the teacher by well adjusted as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Adjusted as Perceived by the Teacher		Row Total
	Yes	No	
Academic Problem as Perceived by the Teacher			
Deficiency in components of the reading act	155 63.8 53.6 28.8	88 36.2 35.3 16.4	243 45.2
Intellectual functioning	20 51.3 6.9 3.7	19 48.7 7.6 3.5	39 7.2
Emotional-social behavior	25 37.3 8.7 4.6	42 62.7 16.9 7.8	67 12.5
Deficiency in components of the reading act and intellectual functioning	37 49.3 12.8 6.9	38 50.7 15.3 7.1	75 13.9
Deficiency in components of the reading act and sensory-perception	15 75.0 5.2 2.8	5 25.0 2.0 0.9	20 3.7
Deficiency in components of the reading act and emotional-social behavior	28 41.2 9.7 5.2	40 58.8 16.1 7.4	68 12.6
Intellectual functioning and sensory-perception	6 46.2 2.1 1.1	7 53.8 2.8 1.3	13 2.4
Intellectual functioning and emotional-social behavior	3 23.1 1.0 0.6	10 76.9 4.0 1.9	13 2.4
Column total	289 53.7	249 46.3	538 100.0

Raw chi square = 30.98677; 7 degrees of freedom; significance = .0001.
 Number of missing observations = 102.

HO: 3.6

Table C.17 Academic problem as perceived by the teacher by well liked by other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Academic Problem as Perceived by the Teacher			
Deficiency in components of the reading act	208 79.1 47.1 35.1	55 20.9 36.4 9.3	263 44.4
Intellectual functioning	36 85.7 8.1 6.1	6 14.3 4.0 1.0	42 7.1
Emotional-social behavior	50 65.8 11.3 8.4	26 34.2 17.2 4.4	76 12.8
Deficiency in components of the reading act and intellectual functioning	53 63.1 12.0 8.9	31 36.9 20.5 5.2	84 14.2
Deficiency in components of the reading act and sensory-perception	20 90.9 4.5 3.4	2 9.1 1.3 0.3	22 3.7
Deficiency in components of the reading act and emotional-social behavior	55 74.3 12.4 9.3	19 25.7 12.6 3.2	74 12.5
Intellectual functioning and sensory-perception	10 62.5 2.3 1.7	6 37.5 4.0 1.0	16 2.7
Intellectual functioning and emotional-social behavior	10 62.5 2.3 1.7	6 37.5 4.0 1.0	16 2.7
Column total	442 74.5	151 25.5	593 100.0

Raw chi square = 20.04350; 7 degrees of freedom; significance = .0055.

Number of missing observations = 47.

HO: 3.7

Table C.18 Academic problem as perceived by the teacher by well liked by adults as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
Academic Problem as Perceived by the Teacher			
Deficiency in components of the reading act	203 87.5 47.7 39.5	29 12.5 33.0 5.6	232 45.1
Intellectual functioning	33 94.3 7.7 6.4	2 5.7 2.3 0.4	35 6.8
Emotional-social behavior	48 77.4 11.3 9.3	14 22.6 15.9 2.7	62 12.1
Deficiency in components of the reading act and intellectual functioning	53 73.6 12.4 10.3	19 26.4 21.6 3.7	72 14.0
Deficiency in components of the reading act and sensory-perception	16 88.9 3.8 3.1	2 11.1 2.3 0.4	18 3.5
Deficiency in components of the reading act and emotional-social behavior	54 81.8 12.7 10.5	12 18.2 13.6 2.3	66 12.8
Intellectual functioning and sensory-perception	10 71.4 2.3 1.9	4 28.6 4.5 0.8	14 2.7
Intellectual functioning and emotional-social behavior	9 60.0 2.1 1.8	6 40.0 6.8 1.2	15 2.9
Column total	426 82.9	88 17.1	514 100.0

Raw chi square = 19.69922; 7 degrees of freedom; significance = .0063.
 Number of missing observations = 126.

H0: 3.9

Table C.19 Academic problem as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher			Row Total
Academic Problem as Perceived by the Teacher	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Deficiency in components of the reading act	142 57.0 41.0 25.4	97 39.0 52.4 17.4	10 4.0 35.7 1.8	249 44.5
Intellectual functioning	22 56.4 6.4 3.9	12 30.8 6.5 2.1	5 12.8 17.9 0.9	39 7.0
Emotional-social behavior	56 73.7 16.2 10.0	17 22.4 9.2 3.0	3 3.9 10.7 0.5	76 13.6
Deficiency in components of the reading act and intellectual functioning	49 65.3 14.2 8.8	23 30.7 12.4 4.1	3 4.0 10.7 0.5	75 13.4
Deficiency in components of the reading act and sensory-perception	5 26.3 1.4 0.9	12 63.2 6.5 2.1	2 10.5 7.1 0.4	19 3.4
Deficiency in components of the reading act and emotional-social behavior	52 74.3 15.0 9.3	15 21.4 8.1 2.7	3 4.3 10.7 0.5	70 12.5
Intellectual functioning and sensory-perception	9 64.3 2.6 1.6	5 35.7 2.7 0.9	0 0 0 0	14 2.5
Intellectual functioning and emotional-social behavior	11 64.7 3.2 2.0	4 23.5 2.2 0.7	2 11.8 7.1 0.4	17 3.0
Column total	346 61.9	185 33.1	28 5.0	559 100.0

Raw chi square = 31.68214; 14 degrees of freedom; significance = .0044.

Number of missing observations = 81.

HO: 3.10

Table C.20 Academic problem as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Academic Problem as Perceived by the Teacher				
Deficiency in components of the reading act	27 10.5 38.0 4.8	203 78.7 48.9 36.1	28 10.9 36.8 5.0	258 45.9
Intellectual functioning	1 2.8 1.4 0.2	32 88.9 7.7 5.7	3 8.3 3.9 0.5	36 6.4
Emotional-social behavior	14 18.7 19.7 2.5	41 54.7 9.9 7.3	20 26.7 26.3 3.6	75 13.3
Deficiency in components of the reading act and intellectual functioning	13 18.3 18.3 2.3	51 71.8 12.3 9.1	7 9.9 9.2 1.2	71 12.6
Deficiency in components of the reading act and sensory-perception	1 5.0 1.4 0.2	16 80.0 3.9 2.8	3 15.0 3.9 0.5	20 3.6
Deficiency in components of the reading act and emotional-social behavior	9 12.7 12.7 1.6	50 70.4 12.0 8.9	12 16.9 15.8 2.1	71 12.6
Intellectual functioning and sensory-perception	3 20.0 4.2 0.5	12 80.0 2.9 2.1	0 0 0 0	15 2.7
Intellectual functioning and emotional-social behavior	3 18.8 4.2 0.5	10 62.5 2.4 1.8	3 18.8 3.9 0.5	16 2.8
Column total	71 12.6	415 73.8	76 13.5	562 100.0

Raw chi square = 31.35363; 14 degrees of freedom; significance = .0049.
 Number of missing observations = 78.

HO: 3.14

Table C.21 Academic problem as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Communication Pattern as Perceived by the Teacher			Row Total
Academic Problem as Perceived by the Teacher	Quiet	Normally Communicative	Very Talkative	
Deficiency in components of the reading act	111 42.2 52.9 19.4	99 37.6 44.0 17.3	53 20.2 39.0 9.3	263 46.1
Intellectual functioning	20 51.3 9.5 3.5	12 30.8 5.3 2.1	7 17.9 5.1 1.2	39 6.8
Emotional-social behavior	16 22.5 7.6 2.8	30 42.3 13.3 5.3	25 35.2 18.4 4.4	71 12.4
Deficiency in components of the reading act and intellectual functioning	26 32.9 12.4 4.6	36 45.6 16.0 6.3	17 21.5 12.5 3.0	79 13.8
Deficiency in components of the reading act and sensory-perception	11 57.9 5.2 1.9	3 15.8 1.3 0.5	5 26.3 3.7 0.9	19 3.3
Deficiency in components of the reading act and emotional-social behavior	18 25.4 8.6 3.2	29 40.8 12.9 5.1	24 33.8 17.6 4.2	71 12.4
Intellectual functioning and sensory-perception	4 30.8 1.9 0.7	6 46.2 2.7 1.1	3 23.1 2.2 0.5	13 2.3
Intellectual functioning and emotional-social behavior	4 25.0 1.9 0.7	10 62.5 4.4 1.8	2 12.5 1.5 0.4	16 2.8
Column total	210 36.8	225 39.4	136 23.8	571 100.0

Raw chi square = 31.00365; 14 degrees of freedom; significance = .0055.
 Number of missing observations = 69.

H0: 4.2

Table C.22 Well adjusted as perceived by the teacher by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Yes		101 41.2 40.2 22.1	107 43.7 91.5 23.4	37 15.1 41.6 8.1	245 53.6
No		150 70.8 59.8 32.8	10 4.7 8.5 2.2	52 24.5 58.4 11.4	212 46.4
Column total		251 54.9	117 25.6	89 19.5	457 100.0

Raw chi square = 90.60212; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 183.

H0: 4.3

Table C.23 Well adjusted as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Yes		119 44.2 39.4 23.8	143 53.2 81.7 28.6	7 2.6 30.4 1.4	269 53.8
No		183 79.2 60.6 36.6	32 13.9 18.3 6.4	16 6.9 69.6 3.2	231 46.2
Column total		302 60.4	175 35.0	23 4.6	500 100.0

Raw chi square = 85.09387; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 140.

HO: 4.4

Table C.24 Well adjusted as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher				Row Total
	Over-Dependent	Accepting	Resistant		
Well Adjusted as Perceived by the Teacher					
Yes	26 9.1 41.9 5.2	245 86.0 66.0 48.9	14 4.9 20.6 2.8		285 56.9
No	36 16.7 58.1 7.2	126 58.3 34.0 25.1	54 25.0 79.4 10.8		216 43.1
Column total	62 12.4	371 74.1	68 13.6		501 100.0

Raw chi square = 54.84952; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 139.

H0: 4.5

Table C.25 Well adjusted as perceived by the teacher by student's leadership as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher			Row Total
	Well Adjusted as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead
Yes		106 37.5 43.6 20.5	145 51.2 71.4 28.0	32 11.3 44.4 6.2
No		137 58.3 56.4 26.4	58 24.7 28.6 11.2	40 17.0 55.6 7.7
Column total		243 46.9	203 39.2	72 13.9
				283 54.6
				235 45.4
				518 100.0

Raw chi square = 38.00782; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 122.

H0: 4.6

Table C.26 Well adjusted as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Well Adjusted as Perceived by the Teacher				
Yes	30	191	54	275
	10.9	69.5	19.6	54.8
	27.8	79.6	35.1	
	6.0	38.0	10.8	
No	78	49	100	227
	34.4	21.6	44.1	45.2
	72.2	20.4	64.9	
	15.5	9.8	19.9	
Column total	108	240	154	502
	21.5	47.8	30.7	100.0

Raw chi square = 115.55712; 2 degrees of freedom; significance = 0.
 Number of missing observations = 138.

HO: 4.7

Table C.27 Well adjusted as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Relationship With Other Students as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Shy and Bashful	Responsive	Bold and Aggressive	
Yes		33	215	27	275
		12.0	78.2	9.8	56.8
		31.4	74.7	29.7	
		6.8	44.4	5.6	
No		72	73	64	209
		34.4	34.9	30.6	43.2
		68.6	25.3	70.3	
		14.9	15.1	13.2	
Column total		105	288	91	484
		21.7	59.5	18.8	100.0

Raw chi square = 92.25912; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 156.

HO: 4.8

Table C.28 Well adjusted as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Communication Pattern as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Quiet	Normally Communicative	Very Talkative	
Yes		139	94	53	286
		48.6	32.9	18.5	56.0
		69.8	49.2	43.8	
		27.2	18.4	10.4	
No		60	97	68	225
		26.7	43.1	30.2	44.0
		30.2	50.8	56.2	
		11.7	19.0	13.3	
Column total		199	191	121	511
		38.9	37.4	23.7	100.0

Raw chi square = 26.36230; 2 degrees of freedom; significance = .0000.
Number of missing observations = 129.

HO: 4.9

Table C.29 Well adjusted as perceived by the teacher by student's playmates as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Playmates as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Younger Children	Children His Own Age	Older Children	
Yes		15 5.9 27.8 3.4	228 89.8 62.1 51.6	11 4.3 52.4 2.5	254 57.5
No		39 20.7 72.2 8.8	139 73.9 37.9 31.4	10 5.3 47.6 2.3	188 42.5
Column total		54 12.2	367 83.0	21 4.8	442 100.0

Raw chi square = 22.95399; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 198.

HO: 5.1

Table C.30 Well liked by other students as perceived by the teacher by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			
Withdraws from a situation	193 68.7 50.7 38.2	88 31.3 71.0 17.4	281 55.6
Faces the problem intelligently	109 90.1 28.6 21.6	12 9.9 9.7 2.4	121 24.0
Acts impulsively	79 76.7 20.7 15.6	24 23.3 19.4 4.8	103 20.4
Column total	381 75.4	124 24.6	505 100.0

Raw chi square = 21.01732; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 135.

HO: 5.2

Table C.31 Well liked by other students as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Behavior When Faced With a Problem as Perceived by the Teacher			
Easily discouraged	231 67.9 55.5 41.5	109 32.1 77.9 19.6	340 61.2
Reasonably persistent	166 88.3 39.9 29.9	22 11.7 15.7 4.0	188 33.8
Blindly aggressive	19 67.9 4.6 3.4	9 32.1 6.4 1.6	28 5.0
Column total	416 74.8	140 25.2	556 100.0

Raw chi square = 27.38722; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 84.

H0: 5.3

Table C.32 Well liked by other students as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher	Well Liked by Other Students as Perceived by the Teacher		Row Total
		Yes	No	
Over-dependent		53	16	69
		76.8	23.2	12.4
		12.4	2.9	
		9.5		
Accepting		337	76	413
		81.6	18.4	74.1
		78.7	58.9	
		60.5	13.6	
Resistant		38	37	75
		50.7	49.3	13.5
		8.9	28.7	
		6.8	6.6	
Column total		428	129	557
		76.8	23.2	100.0

Raw chi square = 34.12463; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 83.

HO: 5.4

Table C.33 Well liked by other students as perceived by the teacher by student's leadership as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Leadership as Perceived by the Teacher			
Generally avoids leadership	193 70.4 44.7 33.7	81 29.6 57.4 14.1	274 47.8
At times he either leads or follows	192 87.7 44.4 33.5	27 12.3 19.1 4.7	219 38.2
Usually seeks to lead	47 58.7 10.9 8.2	33 41.3 23.4 5.8	80 14.0
Column total	432 75.4	141 24.6	573 100.0

Raw chi square = 33.36646; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 67.

H0: 5.5

Table C.34 Well liked by other students as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Behavior in the Classroom as Perceived by the Teacher			
Apathetic	68 57.6 16.4 12.2	50 42.4 35.5 9.0	118 21.2
Emotionally calm	235 87.0 56.6 42.3	35 13.0 24.8 6.3	270 48.6
Excitable	112 66.7 27.0 20.1	56 33.3 39.7 10.1	168 30.2
Column total	415 74.6	141 25.4	556 100.0

Raw chi square = 45.60806; 2 degrees of freedom; significance = .0000.

Number of missing observations = 84.

H0: 5.6

Table C.35 Well liked by other students as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Relationship With Other Students as Perceived by the Teacher			
Shy and bashful	82 64.6 19.6 15.3	45 35.4 38.1 8.4	127 23.6
Responsive	279 90.0 66.6 52.0	31 10.0 26.3 5.8	310 57.7
Bold and aggressive	58 58.0 13.8 10.8	42 42.0 35.6 7.8	100 18.6
Column total	419 78.0	118 22.0	537 100.0

Raw chi square = 62.73198; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 103.

HO: 5.7

Table C.36 Well liked by other students as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher			Row Total
	Yes	No		
Student's Communication Pattern as Perceived by the Teacher				
Quiet	184	27		211
	87.2	12.8		37.3
	42.5	20.3		
	32.5	4.8		
Normally communicative	152	68		220
	69.1	30.9		38.9
	35.1	91.1		
	26.9	12.0		
Very talkative	97	38		135
	71.9	28.1		23.9
	22.4	28.6		
	17.1	6.7		
Column total	433	133		566
	76.5	23.5		100.0

Raw chi square = 21.78839; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 74.

HO: 5.8

Table C.37 Well liked by other students as perceived by the teacher by student's playmates as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher			Row Total
	Yes	No		
Student's Playmates as Perceived by the Teacher				
Younger children	34 55.7 8.9 7.0	27 44.3 25.5 5.5		61 12.5
Children his own age	332 82.0 86.9 68.0	73 18.0 68.9 15.0		405 83.0
Older children	16 72.7 4.2 3.3	6 27.3 5.7 1.2		22 4.5
Column total	382 78.3	106 21.7		488 100.0

Raw chi square = 21.88192; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 152.

HO: 6.4

Table C.38 Well liked by adults as perceived by the teacher by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher	Well Liked by Adults as Perceived by the Teacher		Row Total
		Yes	No	
Withdraws from a situation		185	50	235
		78.7	21.3	54.1
		50.7	72.5	
		42.6	11.5	
Faces the problem intelligently		107	5	112
		95.5	4.5	25.8
		29.3	7.2	
		24.7	1.2	
Acts impulsively		73	14	87
		83.9	16.1	20.0
		20.0	20.3	
		16.8	3.2	
Column total		365	69	434
		84.1	15.9	100.0

Raw chi square = 16.03729; 2 degrees of freedom; significance = .0003.
 Number of missing observations = 206.

HO: 6.5

Table C.39 Well liked by adults as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
Student's Behavior When Faced With a Problem as Perceived by the Teacher			
Easily discouraged	220 77.5 54.7 45.6	64 22.5 80.0 13.3	284 58.9
Reasonably persistent	164 95.3 40.8 34.0	8 4.7 10.0 1.7	172 35.7
Blindly aggressive	18 69.2 4.5 3.7	8 30.8 10.0 1.7	26 5.4
Column total	402 83.4	80 16.6	482 100.0

Raw chi square = 28.73824; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 158.

HO: 6.6

Table C.40 Well liked by adults as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher	Well Liked by Adults as Perceived by the Teacher		Row Total
		Yes	No	
Over-dependent		52	8	60
		86.7	13.3	12.4
		12.8	10.5	
		10.8	1.7	
Accepting		326	39	365
		89.3	10.7	75.6
		80.1	51.3	
		67.5	8.1	
Resistant		29	29	58
		50.0	50.0	12.0
		7.1	38.2	
		6.0	6.0	
Column total		407	76	483
		84.3	15.7	100.0

Raw chi square = 58.64051; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 157.

HO: 6.8

Table C.41 Well liked by adults as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-12)

Student's Behavior in the Classroom as Perceived by the Teacher	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
	Count	Count	
Apathetic	65 67.7 16.5 13.7	31 32.3 38.3 6.5	95 20.3
Emotionally calm	221 94.0 56.2 46.6	14 6.0 17.3 3.0	235 49.6
Excitable	107 74.8 27.2 22.6	36 25.2 44.4 7.6	143 30.2
Column total	393 82.9	81 17.1	474 100.0

Raw chi square = 42.81092; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 166.

H0: 6.6

Table C.42 Well liked by adults as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage Student's Relationship With Other Students as Perceived by the Teacher	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
Shy and bashful	84	18	102
	82.4	17.6	22.0
	21.2	26.5	
	18.1	3.9	
Responsive	257	21	278
	92.4	7.6	59.9
	64.9	30.9	
	55.4	4.5	
Bold and aggressive	55	29	84
	65.5	34.5	18.1
	13.9	42.6	
	11.9	6.3	
Column total	396	68	464
	85.3	14.7	100.0

Raw chi square = 38.45065; 2 degrees of freedom; significance .0000.
 Number of missing observations = 176.

H0: 6.10

Table C.43 Well liked by adults as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
Student's Communication Pattern as Perceived by the Teacher			
Quiet	168	16	184
	91.3	8.7	37.7
	41.0	20.5	
	34.4	3.3	
Normally communicative	157	32	189
	83.1	16.9	38.7
	38.3	41.0	
	32.2	6.6	
Very talkative	85	30	115
	73.9	26.1	23.6
	20.7	38.5	
	17.4	6.1	
Column total	410	78	488
	84.0	16.0	100.0

Raw chi square = 16.14559; 2 degrees of freedom; significance = .0003.
 Number of missing observations = 152.

HO: 7.2

Table C.44 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage		Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
Student's Behavior When Faced With a Problem as Perceived by the Teacher		Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Easily discouraged		234	19	59	312
		75.0	6.1	18.9	63.2
		83.3	16.0	62.8	
		47.4	3.8	11.9	
Reasonably persistent		40	100	20	160
		25.0	62.5	12.5	32.4
		14.2	84.0	21.3	
		8.1	20.2	4.0	
Blindly aggressive		7	0	15	22
		31.8	0	68.2	4.5
		2.5	0	16.0	
		1.4	0	3.0	
Column total		281	119	94	494
		56.9	24.1	19.0	100.0

Raw chi square = 225.80263; 4 degrees of freedom; significance = 0.
Number of missing observations = 146.

HO: 7.3

Table C.45 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Student's Behavior Regarding Authority as Perceived by the Teacher					
Over-dependent	46 69.7 17.3 9.5	7 10.6 5.8 1.4	13 19.7 13.4 2.7		66 13.6
Accepting	186 52.2 69.9 38.4	111 31.2 91.7 22.9	59 16.6 60.8 12.2		356 73.6
Resistant	34 54.8 12.8 7.0	3 4.8 2.5 0.6	25 40.3 25.8 5.2		62 12.8
Column total	266 55.0	121 25.0	97 20.0		484 100.0

Raw chi square = 38.93910; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 156.

HO: 7.4

Table C.46 Student's behavior when faced with a difficult task as perceived by the teacher by student's leadership as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Student's Leadership as Perceived by the Teacher				
	182	35	33	250
	72.8	14.0	13.2	50.5
	64.5	31.0	33.0	
Generally avoids leadership	36.8	7.1	6.7	
	76	62	47	185
	41.1	33.5	25.4	37.4
At times he either leads or follows	27.0	54.9	47.0	
	15.4	12.5	9.5	
	24	16	20	60
Usually seeks to lead	40.0	26.7	33.3	12.1
	8.5	14.2	20.0	
	4.8	3.2	4.0	
Column total	282	113	100	495
	57.0	22.8	20.2	100.0

Raw chi square = 54.07081; 4 degrees of freedom; significance = .0000.

Number of missing observations = 145.

HO: 7.5

Table C.47 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Apathetic	99	4	9	112	
	88.4	3.6	8.0	23.3	
	37.1	3.4	9.3		
	20.6	0.8	1.9		
Emotionally calm	106	94	27	227	
	46.7	41.4	11.9	47.3	
	39.7	81.0	27.8		
	22.1	19.6	5.6		
Excitable	62	18	61	141	
	44.0	12.8	43.3	29.4	
	23.2	15.5	62.9		
	12.9	3.7	12.7		
Column total	267	116	97	480	
	55.6	24.2	20.2	100.0	

Raw chi square = 136.54486; 4 degrees of freedom; significance = 0.
 Number of missing observations = 160.

HO: 7.6

Table C.48 Student's behavior when faced with a difficult task as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Student's Relationship With Other Students as Perceived by the Teacher			Acts Impulsively	
	Withdraws from a Situation	Faces the Task Intelligently			
Shy and bashful	85	21	10		116
	73.3	18.1	8.6		24.8
	33.3	18.4	10.1		
	18.2	4.5	2.1		
Responsive	136	83	52		271
	50.2	30.6	19.2		57.9
	53.3	72.8	52.5		
	29.1	17.7	11.1		
Bold and aggressive	34	10	37		81
	42.0	12.3	45.7		17.3
	13.3	8.8	37.4		
	7.3	2.1	7.9		
Column total	255	114	99		468
	54.5	24.4	21.2		100.0

Raw chi square = 53.93732; 4 degrees of freedom; significance = .0000.

Number of missing observations = 172.

HO: 7.7

Table C.49 Student's behavior when faced with a difficult task as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Student's Communication Pattern as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Quiet		79	64	37	180
		43.9	35.6	20.6	36.2
		28.3	54.2	37.0	
		15.9	12.9	7.4	
Normally communicative		149	40	12	201
		74.1	19.9	6.0	40.4
		53.4	33.9	12.0	
		30.0	8.0	2.4	
Very talkative		51	14	51	116
		44.0	12.1	44.0	23.3
		18.3	11.9	51.0	
		10.3	2.8	10.3	
Column total		279	118	100	497
		56.1	23.7	20.1	100.0

Raw chi square = 90.74932; 4 degrees of freedom; significance = .0000.

Number of missing observations = 143.

HO: 8.2

Table C.50 Student's behavior when faced with a problem as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher			Row Total
	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Student's Relationship With Other Students as Perceived by the Teacher				
Shy and bashful	83	41	3	127
	65.4	32.3	2.4	25.0
	27.7	22.7	11.5	
	16.4	8.1	0.6	
Responsive	153	124	8	285
	53.7	43.5	2.8	56.2
	51.0	68.5	30.8	
	30.2	24.5	1.6	
Bold and aggressive	64	16	15	95
	67.4	16.8	15.8	18.7
	21.3	8.8	57.7	
	12.6	3.2	3.0	
Column total	300	181	26	507
	59.2	35.7	5.1	100.0

Raw chi square = 44.04087; 4 degrees of freedom; significance = .0000.
Number of missing observations = 133.

HO: 8.3

Table C.51 Student's behavior when faced with a problem as perceived by the teacher by student's playmates as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher				Row Total
	Student's Playmates as Perceived by the Teacher	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Younger children		44 77.2 15.9 9.6	10 17.5 6.3 2.2	3 5.3 13.0 0.7	57 12.4
Children his own age		220 57.9 79.4 48.0	143 37.6 90.5 31.2	17 4.5 73.9 3.7	380 83.0
Older children		13 61.9 4.7 2.8	5 23.8 3.2 1.1	3 14.3 13.0 0.7	21 4.6
Column total		277 60.5	158 34.5	23 5.0	458 100.0

Raw chi square = 13.40861; 4 degrees of freedom; significance = .0094.
 Number of missing observations = 182.

H0: 9.2

Table C.52 Student's behavior regarding authority as perceived by the teacher by students behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count		Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
Row Percentage	Column Percentage	Over-Dependent	Accepting	Resistant	
Student's Behavior When Faced With a Problem as Perceived by the Teacher					
Easily discouraged		57	207	51	315
		18.1	65.7	16.2	59.3
		82.6	52.7	73.9	
		10.7	39.0	9.6	
Reasonably persistent		11	171	7	189
		5.8	90.5	3.7	35.6
		15.9	43.5	10.1	
		2.1	32.2	1.3	
Blindly aggressive		1	15	11	27
		3.7	55.6	40.7	5.1
		1.4	3.8	15.9	
		0.2	2.8	2.1	
Column total		69	393	69	531
		13.0	74.0	13.0	100.0

Raw chi square = 57.70953; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 109.

HO: 9.3

Table C.53 Student's behavior regarding authority as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Shy and bashful	23	91	4	118
	19.5	77.1	3.4	23.0
	37.1	23.5	6.3	
	4.5	17.7	0.8	
Responsive	30	254	22	306
	9.8	83.0	7.2	59.5
	48.4	65.5	34.4	
	5.8	49.4	4.3	
Bold and aggressive	9	43	38	90
	10.0	47.8	42.2	17.5
	14.5	11.1	59.4	
	1.8	8.4	7.4	
Column total	62	388	64	514
	12.1	75.5	12.5	100.0

Raw chi square = 97.14745; 4 degrees of freedom; significance = .0000.

Number of missing observations = 126.

HO: 9.4

Table C.54 Student's behavior regarding authority as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher				Row Total
	Over-Dependent	Accepting	Resistant		
Quiet	22	176	12		210
	10.5	83.8	5.7		38.5
	31.0	43.1	18.2		
	4.0	32.3	2.2		
Normally communicative	35	160	14		209
	16.7	76.6	6.7		38.3
	49.3	39.2	21.2		
	6.4	29.4	2.6		
Very talkative	14	72	40		126
	11.1	57.1	31.7		23.1
	19.7	17.6	60.6		
	2.6	13.2	7.3		
Column total	71	408	66		545
	13.0	74.9	12.1		100.0

Raw chi square = 63.49777; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 95.

H0: 9.5

Table C.55 Student's behavior regarding authority as perceived by the teacher by student's playmates as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher				Row Total
	Over-Dependent	Accepting	Resistant		
Student's Playmates as Perceived by the Teacher					
Younger children	12 23.5 21.1 2.6	33 64.7 9.4 7.2	6 11.8 11.5 1.3		51 11.1
Children his own age	43 11.1 75.4 9.3	306 78.7 86.9 66.4	40 10.3 76.9 8.7		389 84.4
Older children	2 9.5 3.5 0.4	13 61.9 3.7 2.8	6 28.6 11.5 1.3		21 4.6
Column total	57 12.4	352 76.4	52 11.3		461 100.0

Raw chi square = 13.49123; 4 degrees of freedom; significance = .0091.
 Number of missing observations = 179.

HO: 10.2

Table C.56 Student's leadership as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior When Faced With a Problem as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Easily discouraged		195	103	39	337
		57.9	30.6	11.6	61.6
		72.5	51.0	51.3	
		35.6	18.8	7.1	
Reasonably persistent		68	90	24	182
		37.4	49.5	13.2	33.3
		25.3	44.6	31.6	
		12.4	16.5	4.4	
Blindly aggressive		6	9	13	28
		21.4	32.1	46.4	5.1
		2.2	4.5	17.1	
		1.1	1.6	2.4	
Column total		269	202	76	547
		49.2	36.9	13.9	100.0

Raw chi square = 49.02270; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 93.

HO: 10.3

Table C.57 Student's leadership as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior Regarding Authority as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Over-dependent		49	19	4	72
		68.1	26.4	5.6	13.2
		18.3	9.2	5.6	
		9.0	3.5	0.7	
Accepting		198	167	42	407
		48.6	41.0	10.3	74.5
		73.9	80.7	59.2	
		36.3	30.6	7.7	
Resistant		21	21	25	67
		31.3	31.3	37.3	12.3
		7.8	10.1	35.2	
		3.8	3.8	4.6	
Column total		268	207	71	546
		49.1	37.9	13.0	100.0

Raw chi square = 49.69613; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 94.

H0: 10.4

Table C.58 Student's leadership as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior in the Classroom as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Apathetic		89	23	11	123
		72.4	18.7	8.9	22.6
		33.7	11.2	14.7	
		16.3	4.2	2.0	
Emotionally calm		121	114	25	260
		46.5	43.8	9.6	47.7
		45.8	55.3	33.3	
		22.2	20.9	4.6	
Excitable		54	69	39	162
		33.3	42.6	24.1	29.7
		20.5	33.5	52.0	
		9.9	12.7	7.2	
Column total		264	206	75	545
		48.4	37.8	13.8	100.0

Raw chi square = 55.56566; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 95.

HO: 10.5

Table C.59 Student's leadership as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Relationship With Other Students as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Shy and bashful		111	18	3	132
		84.1	13.6	2.3	25.0
		44.9	8.9	3.9	
		21.1	3.4	0.6	
Responsive		116	152	27	295
		39.3	51.5	9.2	56.0
		47.0	74.9	35.1	
		22.2	28.8	5.1	
Bold and aggressive		20	33	47	100
		20.0	33.0	47.0	19.0
		8.1	16.3	61.0	
		3.8	6.3	8.9	
Column total		247	203	77	527
		46.9	38.5	14.6	100.0

Raw chi square = 184.53841; 4 degrees of freedom; significance = 0.
 Number of missing observations = 113.

H0: 10.6

Table C.60 Student's leadership as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Communication Pattern as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Quiet		70	100	29	199
		35.2	50.3	14.6	35.9
		25.9	47.2	40.3	
		12.6	18.1	5.2	
Normally communicative		160	60	7	227
		70.5	26.4	3.1	41.0
		59.3	28.3	9.7	
		28.9	10.8	1.3	
Very talkative		40	52	36	128
		31.3	40.6	28.1	23.1
		14.8	24.5	50.0	
		7.2	9.4	6.5	
Column total		270	212	72	554
		48.7	38.3	13.0	100.0

Raw chi square = 93.61821; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 86.

H0: 10.7

Table C.61 Student's leadership as perceived by the teacher by student's playmates as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Playmates as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Younger children		31 53.4 14.6 6.5	14 24.1 7.0 2.9	13 22.4 19.4 2.7	58 12.1
Children his own age		177 44.4 83.5 37.0	176 44.1 88.0 36.7	46 11.5 68.7 9.6	399 83.3
Older children		4 18.2 1.9 0.8	10 45.5 5.0 2.1	8 36.4 11.9 1.7	22 4.6
Column total		212 44.3	200 41.8	67 14.0	479 100.0

Raw chi square = 21.94480; 4 degrees of freedom; significance = .0002.
 Number of missing observations = 161.

HO: 11.2

Table C.62 Student's behavior in the classroom as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
	Apathetic	Emotionally Calm	Excitable		
Easily discouraged	101	114	111		326
	31.0	35.0	34.0		61.4
	84.2	45.6	68.9		
	19.0	21.5	20.9		
Reasonably persistent	13	128	37		178
	7.3	71.9	20.8		33.5
	10.8	51.2	23.0		
	2.4	24.1	7.0		
Blindly aggressive	6	8	13		27
	22.2	29.6	48.1		5.1
	5.0	3.2	8.1		
	1.1	1.5	2.4		
Column total	120	250	161		531
	22.6	47.1	30.3		100.0

Raw chi square = 73.43846; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 109.

HO: 11.3

Table C.63 Student's behavior in the classroom as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
	Student's Behavior Regarding Authority as Perceived by the Teacher	Apathetic	Emotionally Calm	Excitable	
Over-dependent		20	22	21	63
		31.7	34.9	33.3	11.8
		17.7	8.3	13.4	
		3.7	4.1	3.9	
Accepting		73	235	93	401
		18.2	58.6	23.2	74.8
		64.6	88.3	59.2	
		13.6	43.8	17.4	
Resistant		20	9	43	72
		27.8	12.5	59.7	13.4
		17.7	3.4	27.4	
		3.7	1.7	8.0	
Column total		113	266	157	536
		21.1	49.6	29.3	100.0

Raw chi square = 63.96658; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 104.

H0: 11.4

Table C.64 Student's behavior in the classroom as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
	Apathetic	Emotionally Calm	Excitable		
Shy and bashful	39 32.8 38.2 7.7	57 47.9 22.6 11.2	23 19.3 15.0 4.5		119 23.5
Responsive	48 16.4 47.1 9.5	175 59.7 69.4 34.5	70 23.9 45.8 13.8		293 57.8
Bold and aggressive	15 15.8 14.7 3.0	20 21.1 7.9 3.9	60 63.2 39.2 11.8		95 18.7
Column total	102 20.1	252 49.7	153 30.2		507 100.0

Raw chi square = 76.80091; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 133.

H0: 11.5

Table C.65 Student's behavior in the classroom as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Quiet	27	122	53	202
	13.4	60.4	26.2	37.4
	23.1	46.6	32.9	
	5.0	22.6	9.8	
Normally communicative	80	107	23	210
	38.1	51.0	11.0	38.9
	68.4	40.8	14.3	
	14.8	19.8	4.3	
Very talkative	10	33	85	128
	7.8	25.8	66.4	23.7
	8.5	12.6	52.8	
	1.9	6.1	15.7	
Column total	117	262	161	540
	21.7	48.5	29.8	100.0

Raw chi square = 147.10009; 4 degrees of freedom; significance = 0.
 Number of missing observations = 100.

H0: 13.2

Table C.66 Student's communication pattern as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Communication Pattern as Perceived by the Teacher			
	Quiet	Normally Communicative	Very Talkative	Total
Student's Behavior When Faced With a Problem as Perceived by the Teacher				
	97	149	83	329
	29.5	45.3	25.2	60.8
	48.3	69.6	65.9	
Easily discouraged	17.9	27.5	15.3	
	95	63	30	188
	50.5	33.5	16.0	34.8
	47.3	29.4	23.8	
Reasonably persistent	17.6	11.6	5.5	
	9	2	13	24
	37.5	8.3	54.2	4.4
	4.5	0.9	10.3	
Blindly aggressive	1.7	0.4	2.4	
	201	214	126	541
	37.2	39.6	23.3	100.0
Column total				

Raw chi square = 39.34705; 4 degrees of freedom; significance = .0000.

Number of missing observations = 99.

H0: 13.3

Table C.67 Student's communication pattern as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Communication Pattern as Perceived by the Teacher			Row Total
	Quiet	Normally Communicative	Very Talkative	
Student's Relationship With Other Students as Perceived by the Teacher				
Shy and bashful	17 13.4 8.3 3.2	99 78.0 50.0 18.9	11 8.7 9.1 2.1	127 24.2
Responsive	162 53.1 79.0 30.9	91 29.8 46.0 17.4	52 17.0 43.0 9.9	305 58.2
Bold and aggressive	26 28.3 12.7 5.0	8 8.7 4.0 1.5	58 63.0 47.9 11.1	92 17.6
Column total	205 39.1	198 37.8	121 23.1	524 100.0

Raw chi square = 199.33863; 4 degrees of freedom; significance = 0.

Number of missing observations = 116.

H0: 14.1

Table C.68 Student's playmates as perceived by the teacher by number of failures
(Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Playmates as Perceived by the Teacher			Row Total
	Younger Children	Children His Own Age	Older Children	
Number of Failures				
None	27	292	16	335
	8.1	87.2	4.8	67.1
	44.3	70.2	72.7	
	5.4	58.5	3.2	
One	29	115	6	150
	19.3	76.7	4.0	30.1
	47.5	27.6	27.3	
	5.8	23.0	1.2	
Two	5	7	0	12
	41.7	58.3	0	2.4
	8.2	1.7	0	
	1.0	1.4	0	
Three	0	2	0	2
	0	100.0	0	0.4
	0	0.5	0	
	0	0.4	0	
Column total	61 12.2	416 83.4	22 4.4	499 100.0

Raw chi square = 22.84031; 6 degrees of freedom; significance = .0009.
 Number of missing observations = 141.

HO: 14.2

Table C.69 Student's playmates as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-12)

Count Row Percentage Column Percentage Total Percentage	Student's Playmates as Perceived by the Teacher				Row Total
	Younger Children	Children His Own Age	Older Children		
Student's Relationship With Other Students as Perceived by the Teacher					
	21	69	0		90
	23.3	76.7	0		20.2
	39.6	18.5	0		
Shy and bashful	4.7	15.5	0		
	21	242	9		272
	7.7	89.0	3.3		61.1
Responsive	39.6	69.9	47.4		
	4.7	54.4	2.0		
Bold and aggressive	11	62	10		83
	13.3	74.7	12.0		18.7
	20.8	16.6	52.6		
	2.5	13.9	2.2		
Column total	53	373	19		445
	11.9	83.8	4.3		100.0

Raw chi square = 32.42169; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 195.

APPENDIX D

SIGNIFICANT DATA FOR THE HYPOTHESES

GRADES 1-3

HO: 1.7

Table D.1 Sex of student by student's leadership as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage Sex of Student	Student's Leadership as Perceived by the Teacher			Row Total
	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Male	63	68	31	162
	38.9	42.0	19.1	83.9
	74.1	89.5	96.9	
	32.6	35.2	16.1	
Female	22	8	1	31
	71.0	25.8	3.2	16.1
	25.9	10.5	3.1	
	11.4	4.1	0.5	
Column total	85	76	32	193
	44.0	39.4	16.6	100.0

Raw chi square = 11.7793; 2 degrees of freedom; significance = .0028.
 Number of missing observations = 6.

H0: 2.2

Table D.2 Student's Verbal I.Q. below 100 by number of failures
(Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Verbal I.Q. Below 100		Row Total
	Yes	No	
Number of Failures			
None	64 54.2 57.7 35.6	54 45.8 78.3 30.0	118 65.6
One	42 73.7 37.8 23.3	15 26.3 21.7 8.3	57 31.7
Two	5 100.0 4.5 2.8	0 0 0 0	5 2.8
Column total	111 61.7	69 38.3	180 100.0

Raw chi square = 9.34576; 2 degrees of freedom; significance = .0093.
 Number of missing observations = 19.

HO: 2.2

Table D.3 Student's Full Scale I.Q. below 100 by number of failures
(Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Full Scale I.Q. Below 100		Row Total
	Yes	No	
None	52 44.1 55.3 28.9	66 55.9 76.7 36.7	118 65.6
One	38 66.7 40.4 21.1	19 33.3 22.1 10.6	57 31.7
Two	4 80.0 4.3 2.2	1 20.0 1.2 0.6	5 2.8
Column total	94 52.2	86 47.8	180 100.0

Raw chi square = 9.45748; 2 degrees of freedom; significance = .0088.
 Number of missing observations = 19.

HO: 3.4

Table D.4 Academic problem as perceived by the teacher by well adjusted as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Well Adjusted as Perceived by the Teacher		Row Total
	Yes	No	
Academic Problem as Perceived by the Teacher			
Deficiency in components of the reading act	46 66.7 52.9 28.4	23 33.3 30.7 14.2	69 42.6
Intellectual functioning	5 50.0 5.7 3.1	5 50.0 6.7 3.1	10 6.2
Emotional-social behavior	10 45.5 11.5 6.2	12 54.5 16.0 7.4	22 13.6
Deficiency in components of the reading act and intellectual functioning	8 42.1 9.2 4.9	11 57.9 14.7 6.8	19 11.7
Deficiency in components of the reading act and sensory-perception	10 83.3 11.5 6.2	2 16.7 2.7 1.2	12 7.4
Deficiency in components of the reading act and emotional-social behavior	7 30.4 8.0 4.3	16 69.6 21.3 9.9	23 14.2
Intellectual functioning and sensory-perception	0 0 0 0	4 100.0 5.3 2.5	4 2.5
Intellectual functioning and emotional-social behavior	1 33.3 1.1 0.6	2 66.7 2.7 1.2	3 1.9
Column total	87 53.7	75 46.3	162 100.0

Raw chi square = 20.73546; 7 degrees of freedom; significance = .0042.
 Number of missing observations = 38.

H0: 3.11

Table D.5 Academic problem as perceived by the teacher by student's leadership as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher			Row Total
Academic Problem as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Deficiency in components of the reading act	30 38.5 37.0 16.1	42 53.8 57.5 22.6	6 7.7 18.8 3.2	78 41.9
Intellectual functioning	8 57.1 9.9 4.3	3 21.4 4.1 1.6	3 21.4 9.4 1.6	14 7.5
Emotional-social behavior	13 50.0 16.0 7.0	8 30.8 11.0 4.3	5 19.2 15.6 2.7	26 14.0
Deficiency in components of the reading act and intellectual functioning	14 70.0 17.3 7.5	3 15.0 4.1 1.6	3 15.0 9.4 1.6	20 10.8
Deficiency in components of the reading act and sensory-perception	2 14.3 2.5 1.1	7 50.0 9.6 3.8	5 35.7 15.6 2.7	14 7.5
Deficiency in components of the reading act and emotional-social behavior	9 37.5 11.1 4.8	7 29.2 9.6 3.8	8 33.3 25.0 4.3	24 12.9
Intellectual functioning and sensory-perception	4 66.7 4.9 2.2	1 16.7 1.4 0.5	1 16.7 3.1 0.5	6 3.2
Intellectual functioning and emotional-social behavior	1 25.0 1.2 0.5	2 50.0 2.7 1.1	1 25.0 3.1 0.5	4 2.2
Column total	81 43.5	73 39.2	32 17.2	186 100.0

Raw chi square = 30.22316; 14 degrees of freedom; significance = .0071.
 Number of missing observations = 13.

HO: 4.2

Table D.6 Well adjusted as perceived by the teacher by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Yes		36 49.3 47.4 27.3	25 34.2 89.3 18.9	12 16.4 42.9 9.1	73 55.3
No		40 67.8 52.6 30.3	3 5.1 10.7 2.3	16 27.1 57.1 12.1	59 44.7
Column total		76 57.6	28 21.2	28 21.2	132 100.0

Raw chi square = 16.77148; 2 degrees of freedom; significance = .0002.
 Number of missing observations = 67.

HO: 4.3

Table D.7 Well adjusted as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher			Row Total
	Well Adjusted as Perceived by the Teacher	Easily Discouraged	Reasonably Persistent	Blindly Aggressive
Yes		44 52.4 46.3 28.8	36 42.9 78.3 23.5	4 4.8 33.3 2.6
No		51 73.9 53.7 33.3	10 14.5 21.7 6.5	8 11.6 66.7 5.2
Column total		95 62.1	46 30.1	12 7.8
				153 100.0

Raw chi square = 15.22048; 2 degrees of freedom; significance = .0005.
 Number of missing observations = 46.

HO: 4.4

Table D.8 Well adjusted as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Well Adjusted as Perceived by the Teacher				
Yes	10 11.2 47.6 6.6	75 84.3 66.4 49.7	4 4.5 23.5 2.6	89 58.9
No	11 17.7 52.4 7.3	38 61.3 33.6 25.2	13 21.0 76.5 8.6	62 41.1
Column total	21 13.9	113 74.8	17 11.3	151 100.0

Raw chi square = 12.49918; 2 degrees of freedom; significance = .0019.
Number of missing observations = 48.

HO: 4.5

Table D.9 Well adjusted as perceived by the teacher by student's leadership as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Yes		32 35.2 48.5 19.8	51 56.0 73.9 31.5	8 8.8 29.6 4.9	91 56.2
No		34 47.9 51.5 21.0	18 25.4 26.1 11.1	19 26.8 70.4 11.7	71 43.8
Column total		66 40.7	69 42.6	27 16.7	162 100.0

Raw chi square = 18.13192; 2 degrees of freedom; significance = .0001.
 Number of missing observations = 37.

HO: 4.6

Table D.10 Well adjusted as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
	Apathetic	Emotionally Calm	Excitable		
Well Adjusted as Perceived by the Teacher					
	14	54	19		87
	16.1	62.1	21.8		55.8
	41.2	76.1	37.3		
No	9.0	34.6	12.2		
	20	17	32		69
	29.0	24.6	46.4		44.2
	58.8	23.9	62.7		
Column total	12.8	10.9	20.5		
	34	71	51		156
	21.8	45.5	32.7		100.0

Raw chi square = 21.86846; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 43.

HO: 4.7

Table D.11 Well adjusted as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Relationship with Other Students as Perceived by the Teacher			Row Total
	Shy and Bashful	Responsive	Bold and Aggressive	
Well Adjusted as Perceived by the Teacher				
	8	65	9	82
	9.8	79.3	11.0	57.7
	36.4	76.5	25.7	
No	5.6	45.8	6.3	
	14	20	26	60
	23.3	33.3	43.3	42.3
	63.6	23.5	74.3	
Column total	9.9	14.1	18.3	
	22	85	35	142
	15.5	59.9	24.6	100.0

Raw chi square = 31.05398; 2 degrees of freedom; significance = .0000.
Number of missing observations = 57.

HO: 4.8

Table D.12 Well adjusted as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Communication Pattern as Perceived by the Teacher			Row Total
	Quiet	Normally Communicative	Very Talkative	
Well Adjusted as Perceived by the Teacher				
Yes	43 48.3 70.5 27.4	27 30.3 52.9 17.2	19 21.3 42.2 12.1	89 56.7
No	18 26.5 29.5 11.5	24 35.3 47.1 15.3	26 38.2 57.8 16.6	68 43.3
Column total	61 38.9	51 32.5	45 28.7	157 100.0

Raw chi square = 8.86088; 2 degrees of freedom; significance = .0119.
 Number of missing observations = 42.

H0: 5.1

Table D.13 Well liked by other students as perceived by the teacher by student's behavior when faced with a difficult task as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			
Withdraw from the situation	71 74.7 56.3 43.8	24 25.3 66.7 14.8	95 58.6
Face the problem intelligently	27 93.1 21.4 16.7	2 6.9 5.6 1.2	29 17.9
Act impulsively	28 73.7 22.2 17.3	10 26.3 27.8 6.2	38 23.5
Column total	126 77.8	36 22.2	162 100.0

Raw chi square = 4.81758; 2 degrees of freedom; significance = .0899.
 Number of missing observations = 37.

HO: 5.3

Table D.14 Well liked by other students as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Behavior Regarding Authority as Perceived by the Teacher			
Over-dependent	22 88.0 15.3 12.2	3 12.0 8.1 1.7	25 13.8
Accepting	113 82.5 78.5 62.4	24 17.5 64.9 13.3	137 75.7
Resistant	9 47.4 6.3 5.0	10 52.6 27.0 5.5	19 10.5
Column total	144 79.6	37 20.4	181 100.0

Raw chi square = 13.92097; 2 degrees of freedom; significance .0009.
 Number of missing observations = 18.

H0: 5.4

Table D.15 Well liked by other students as perceived by the teacher by student's leadership as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Leadership as Perceived by the Teacher			
Generally avoids leadership	66 79.5 44.9 34.6	17 20.5 38.6 8.9	83 43.5
At times he either leads or follows	67 88.2 45.6 35.1	9 11.8 20.5 4.7	76 39.8
Usually seeks to lead	14 43.8 9.5 7.3	18 56.3 40.9 9.4	32 16.8
Column total	147 77.0	44 23.0	191 100.0

Raw chi square = 25.58741; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 8.

HO: 5.5

Table D.16 Well liked by other students as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Behavior in the Classroom as Perceived by the Teacher			
Apathetic	25 64.1 18.0 13.5	14 35.9 30.4 7.6	39 21.1
Emotionally calm	70 85.4 50.4 37.8	12 14.6 26.1 6.5	82 44.3
Excitable	44 68.8 31.7 23.8	20 31.3 43.5 10.8	64 34.6
Column total	139 75.1	46 24.9	185 100.0

Raw chi square = 8.53163; 2 degrees of freedom; significance = .0140.
 Number of missing observations = 14.

HO: 5.6

Table D.17 Well liked by other students as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Relationship With Other Students as Perceived by the Teacher			
Shy and bashful	28 80.0 20.3 16.2	7 20.0 20.0 4.0	35 20.2
Responsive	89 90.8 64.5 51.4	9 9.2 25.7 5.2	98 56.6
Bold and aggressive	21 52.5 15.2 12.1	19 47.5 54.3 11.0	40 23.1
Column total	138 79.8	35 20.2	173 100.0

Raw chi square = 25.84308; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 26.

H0: 5.8

Table D.18 Well liked by other students as perceived by the teacher by student's playmates as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Playmates as Perceived by the Teacher			
Younger children	11 47.8 8.0 6.1	12 52.2 29.3 6.7	23 12.8
Children his own age	120 81.6 87.0 67.0	27 18.4 65.9 15.1	147 82.1
Older children	7 77.8 5.1 3.9	2 22.2 4.9 1.1	9 5.0
Column total	138 77.1	41 22.9	179 100.0

Raw chi square = 12.87437; 2 degrees of freedom; significance = .0016.
 Number of missing observations = 20.

HO: 6.6

Table D.19 Well liked by adults as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher	Well Liked by Adults as Perceived by the Teacher		Row Total
		Yes	No	
Over-dependent		19	1	20
		95.0	5.0	12.8
		14.0	5.0	
		12.2	0.6	
Accepting		111	11	122
		91.0	9.0	78.2
		81.6	55.0	
		71.2	7.1	
Resistant		6	8	14
		42.9	57.1	9.0
		4.4	40.0	
		3.8	5.1	
Column total		136	20	156
		87.2	12.8	100.0

Raw chi square = 27.28074; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 43.

HO: 6.9

Table D.20 Well liked by adults as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
Student's Relationship With Other Students as Perceived by the Teacher			
Shy and bashful	25 96.2 19.2 17.2	1 3.8 6.7 0.7	26 17.9
Responsive	84 95.5 64.6 57.9	4 4.5 26.7 2.8	88 60.7
Bold and aggressive	21 67.7 16.2 14.5	10 32.3 66.7 6.9	31 21.4
Column total	130 89.7	15 10.3	145 100.0

Raw chi square = 20.42511; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 54.

HO: 7.2

Table D.21 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage		Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
Student's Behavior When Faced With a Problem as Perceived by the Teacher		Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Easily discouraged		77 73.3 82.8 49.0	8 7.6 27.6 5.1	20 19.0 57.1 12.7	105 66.9
Reasonably persistent		13 33.3 14.0 8.3	21 53.8 72.4 13.4	5 12.8 14.3 3.2	39 24.8
Blindly aggressive		3 23.1 3.2 1.9	0 0 0 0	10 76.9 28.6 6.4	13 8.3
Column total		93 59.2	29 18.5	35 22.3	157 100.0

Raw chi square = 65.79632; 4 degrees of freedom; significance = .0000.

Number of missing observations = 42.

HO: 7.3

Table D.22 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Over-dependent	18	0	5		23
	78.3	0	21.7		15.1
	20.5	0	14.3		
	11.8	0	3.3		
Accepting	63	29	22		114
	55.3	25.4	19.3		75.0
	71.6	100.0	62.9		
	41.4	19.1	14.5		
Resistant	7	0	8		15
	46.7	0	53.3		9.9
	8.0	0	22.9		
	4.6	0	5.3		
Column total	88	29	35		152
	57.9	19.1	23.0		100.0

Raw chi square = 18.46559; 4 degrees of freedom; significance = .0010.
 Number of missing observations = 47.

H0: 7.4

Table D.23 Student's behavior when faced with a difficult task as perceived by the teacher by student's leadership as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Student's Leadership as Perceived by the Teacher	57	5	10	72
	79.2	6.9	13.9	45.6
	60.6	17.2	28.6	
	36.1	3.2	6.3	
Generally avoids leadership	27	20	15	62
	43.5	32.3	24.2	39.2
	28.7	69.0	42.9	
	17.1	12.7	9.5	
At times either leads or follows	10	4	10	24
	41.7	16.7	41.7	15.2
	10.6	13.8	28.6	
	6.3	2.5	6.3	
Usually seeks to lead	94	29	35	158
	59.5	18.4	22.2	100.0

Raw chi square = 26.75147; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 41.

HO: 7.5

Table D.24 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Student's Behavior in the Classroom as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Apathetic		27	1	5	33
		81.8	3.0	15.2	21.3
		30.0	3.4	13.9	
		17.4	0.6	3.2	
Emotionally calm		41	21	10	72
		56.9	29.2	13.9	46.5
		45.6	72.4	27.8	
		26.5	13.5	6.5	
Excitable		22	7	21	50
		44.0	14.0	42.0	32.3
		24.4	24.1	58.3	
		14.2	4.5	13.5	
Column total		90	29	36	155
		58.1	18.7	23.2	100.0

Raw chi square = 25.27936; 4 degrees of freedom; significance = .0000.

Number of missing observations = 44.

HO: 7.6

Table D.25 Student's behavior when faced with a difficult task as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage		Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
Student's Relationship With Other Students as Perceived by the Teacher		Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Shy and bashful		21	3	4	28	
		75.0	10.7	14.3	18.8	
		24.4	10.7	11.4		
		14.1	2.0	2.7		
Responsive		51	21	16	88	
		58.0	23.9	18.2	59.1	
		59.3	75.0	45.7		
		34.2	14.1	10.7		
Bold and aggressive		14	4	15	33	
		42.4	12.1	45.5	22.1	
		16.3	14.3	42.9		
		9.4	2.7	10.1		
Column total		86	28	35	149	
		57.7	18.8	23.5	100.0	

Raw chi square = 14.58824; 4 degrees of freedom; significance = .0056.
 Number of missing observations = 50.

HO: 7.7

Table D.26 Student's behavior when faced with a difficult task as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Quiet	30	15	12	57
	52.6	26.3	21.1	36.1
	32.3	53.6	32.4	
	19.0	9.5	7.6	
Normally communicative	44	11	2	57
	77.2	19.3	3.5	36.1
	47.3	39.3	5.4	
	27.8	7.0	1.3	
Very talkative	19	2	23	44
	43.2	4.5	52.3	27.8
	20.4	7.1	62.2	
	12.0	1.3	14.6	
Column total	93	28	37	158
	58.9	17.7	23.4	100.0

Raw chi square = 37.66200; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 41.

HO: 8.2

Table D.27 Student's behavior when faced with a problem as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher				Row Total
	Student's Relationship With Other Students as Perceived by the teacher	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Shy and bashful		20	11	1	32
		62.5	34.4	3.1	19.6
		19.6	22.9	7.7	
		12.3	6.7	0.6	
Responsive		56	32	4	92
		60.9	34.8	4.3	56.4
		54.9	66.7	30.8	
		34.4	19.6	2.5	
Bold and aggressive		26	5	8	39
		66.7	12.8	20.5	23.9
		25.5	10.4	61.5	
		16.0	3.1	4.9	
Column total		102	48	13	163
		62.6	29.4	8.0	100.0

Raw chi square = 15.10991; 4 degrees of freedom; significance = .0045.
Number of missing observations = 36.

HO: 9.3

Table D.28 Student's behavior regarding authority as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher				Row Total
	Over-Dependent	Accepting	Resistant		
Shy and bashful	7	25	1		33
	21.2	75.8	3.0		20.2
	31.8	20.0	6.3		
	4.3	15.3	0.6		
Responsive	12	78	4		94
	12.8	83.0	4.3		57.7
	54.5	62.4	25.0		
	7.4	47.9	2.5		
Bold and aggressive	3	22	11		36
	8.3	61.1	30.6		22.1
	13.6	17.6	68.8		
	1.8	13.5	6.7		
Column total	22	125	16		163
	13.5	76.7	9.8		100.0

Raw chi square = 24.11567; 4 degrees of freedom; significance = .0001.
 Number of missing observations = 36.

HO: 9.4

Table D.29 Student's behavior regarding authority as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Quiet	10	54	3	67
	14.9	80.6	4.5	38.1
	40.0	40.9	15.8	
	5.7	30.7	1.7	
Normally communicative	10	46	4	60
	16.7	76.7	6.7	34.1
	40.0	34.8	21.1	
	5.7	26.1	2.3	
Very talkative	5	32	12	49
	10.2	65.3	24.5	27.8
	20.0	24.2	63.2	
	2.8	18.2	6.8	
Column total	25	132	19	176
	14.2	75.0	10.8	100.0

Raw chi square = 13.68547; 4 degrees of freedom; significance = .0084.
 Number of missing observations = 23.

HO: 10.2

Table D.30 Student's leadership as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior When Faced With a Problem as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Easily discouraged		58	38	17	113
		51.3	33.6	15.0	63.1
		72.5	54.3	58.6	
		32.4	21.2	9.5	
Reasonably persistent		18	27	6	51
		35.3	52.9	11.8	28.5
		22.5	38.6	20.7	
		10.1	15.1	3.4	
Blindly aggressive		4	5	6	15
		26.7	33.3	40.0	8.4
		5.0	7.1	20.7	
		2.2	2.8	3.4	
Column total		80	70	29	179
		44.7	39.1	16.2	100.0

Raw chi square = 12.65955; 4 degrees of freedom; significance = .0131.
 Number of missing observations = 20.

HO: 10.3

Table D.31 Student's leadership as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior Regarding Authority as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Over-dependent		19 76.0 23.8 10.6	5 20.0 6.8 2.8	1 4.0 3.8 0.6	25 13.9
		57 41.6 71.2 31.7	63 46.0 85.1 35.0	17 12.4 65.4 9.4	137 76.1
		4 22.2 5.0 2.2	6 33.3 8.1 3.3	8 44.4 30.8 4.4	18 10.0
		80 44.4	74 41.1	26 14.4	180 100.0
Accepting					
Resistant					

Raw chi square = 25.11277; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 19.

HO: 10.4

Table D.32 Student's leadership as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior in the Classroom as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Apathetic		26	7	5	38
		68.4	18.4	13.2	20.8
		32.1	9.7	16.7	
		14.2	3.8	2.7	
Emotionally calm		38	39	7	84
		45.2	46.4	8.3	45.9
		46.9	54.2	23.3	
		20.8	21.3	3.8	
Excitable		17	26	18	61
		27.9	42.6	29.5	33.3
		21.0	36.1	60.0	
		9.3	14.2	9.8	
Column total		81	72	30	183
		44.3	39.3	16.4	100.0

Raw chi square = 24.17037; 4 degrees of freedom; significance = .0001.
 Number of missing observations = 16.

HO: 10.5

Table D.33 Student's leadership as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher			Row Total
	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Student's Relationship with Other Students as Perceived by the Teacher				
Shy and bashful	29	5	1	35
	82.9	14.3	2.9	20.5
	39.7	7.4	3.3	
	17.0	2.9	0.6	
Responsive	38	50	8	96
	39.6	52.1	8.3	56.1
	52.1	73.5	26.7	
	22.2	29.2	4.7	
Bold and aggressive	6	13	21	40
	15.0	32.5	52.5	23.4
	8.2	19.1	70.0	
	3.5	7.6	12.3	
Column total	73	68	30	171
	42.7	39.8	17.5	100.0

Raw chi square = 67.34225; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 28.

H0: 10.6

Table D.34 Student's leadership as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-3)

Student's Communication Pattern as Perceived by the Teacher	Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher			Row Total
		Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Quiet		21 30.0 25.6 11.4	36 51.4 49.3 19.5	13 18.6 43.3 7.0	70 37.8
Normally communicative		41 63.1 50.0 22.2	20 30.8 27.4 10.8	4 6.2 13.3 2.2	65 35.1
Very talkative		20 40.0 24.4 10.8	17 34.0 23.3 9.2	13 26.0 43.3 7.0	50 27.0
Column total		82 44.3	73 39.5	30 16.2	185 100.0

Raw chi square = 20.02080; 4 degrees of freedom; significance = .0005.
 Number of missing observations = 14.

HO: 11.2

Table D.35 Student's behavior in the classroom as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Easily discouraged	32	41	40	113
	28.3	36.3	35.4	64.2
	88.9	51.9	65.6	
	18.2	23.3	22.7	
Reasonably persistent	2	32	14	48
	4.2	66.7	29.2	27.3
	5.6	40.5	23.0	
	1.1	18.2	8.0	
Blindly aggressive	2	6	7	15
	13.3	40.0	46.7	8.5
	5.6	7.6	11.5	
	1.1	3.4	4.0	
Column total	36	79	61	176
	20.5	44.9	34.7	100.0

Raw chi square = 18.08953; 4 degrees of freedom; significance = .0012.
 Number of missing observations = 23.

HO: 11.3

Table D.36 Student's behavior in the classroom as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Student's Behavior Regarding Authority as Perceived by the Teacher				
Over-dependent	7 29.2 21.2 4.0	8 33.3 9.6 4.6	9 37.5 15.5 5.2	24 13.8
Accepting	23 17.6 69.7 13.2	71 54.2 85.5 40.8	37 28.2 63.8 21.3	131 75.3
Resistant	3 15.8 9.1 1.7	4 21.1 4.8 2.3	12 63.2 20.7 6.9	19 10.9
Column total	33 19.0	83 47.7	58 33.3	174 100.0

Raw chi square = 12.79448; 4 degrees of freedom; significance = .0123.
 Number of missing observations = 25.

H0: 11.4

Table D.37 Student's behavior in the classroom as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Shy and bashful	9	17	7	33
	27.3	51.5	21.2	20.0
	31.0	22.1	11.9	
	5.5	10.3	4.2	
Responsive	13	51	28	92
	14.1	55.4	30.4	55.8
	44.8	66.2	47.5	
	7.9	30.9	17.0	
Bold and aggressive	7	9	24	40
	17.5	22.5	60.0	24.2
	24.1	11.7	40.7	
	4.2	5.5	14.5	
Column total	29	77	59	165
	17.6	46.7	35.8	100.0

Raw chi square = 18.33052; 4 degrees of freedom; significance = .0011.
 Number of missing observations = 34.

HO: 11.5

Table D.38 Student's behavior in the classroom as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Quiet	12	39	18	69
	17.4	56.5	26.1	38.5
	32.4	48.7	29.0	
	6.7	21.8	10.1	
Normally communicative	22	30	9	61
	36.1	49.2	14.8	34.1
	59.5	37.5	14.5	
	12.3	16.8	5.0	
Very talkative	3	11	35	49
	6.1	22.4	71.4	27.4
	8.1	13.7	56.5	
	1.7	6.1	19.6	
Column total	37	80	62	179
	20.7	44.7	34.6	100.0

Raw chi square = 47.79815; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 20.

HO: 13.2

Table D.39 Student's communication pattern as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Communication Pattern as Perceived by the Teacher			Row Total
	Quiet	Normally Communicative	Very Talkative	
Student's Behavior When Faced With a Problem as Perceived by the Teacher				
	34	44	34	112
	30.4	39.3	30.4	63.6
	50.7	72.1	70.8	
Easily discouraged	19.3	25.0	19.3	
	28	16	6	50
	56.0	32.0	12.0	28.4
Reasonably persistent	41.8	26.2	12.5	
	15.9	9.1	3.4	
	5	1	8	14
Blindly aggressive	35.7	7.1	57.1	8.0
	7.5	1.6	16.7	
	2.8	0.6	4.5	
Column total	67	61	48	176
	38.1	34.7	27.3	100.0

Raw chi square = 19.09232; 4 degrees of freedom; significance = .0008.
 Number of missing observations = 23.

HO: 13.3

Table D.40 Student's communication pattern as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Relationship With Other Students as Perceived by the Teacher	Student's Communication Pattern as Perceived by the Teacher			Row Total
		Quiet	Normally Communicative	Very Talkative	
Shy and bashful		5	23	6	34
		14.7	67.6	17.6	20.1
		7.5	40.4	13.3	
		3.0	13.6	3.6	
Responsive		49	29	18	96
		51.0	30.2	18.8	56.8
		73.1	50.9	40.0	
		29.0	17.2	10.7	
Bold and aggressive		13	5	21	39
		33.3	12.8	53.8	23.1
		19.4	8.8	46.7	
		7.7	3.0	12.4	
Column total		67	57	45	169
		39.6	33.7	26.6	100.0

Raw chi square = 39.99416; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 30.

HO: 14.1

Table D.41 Student's playmates as perceived by the teacher by number of failures
(Grades 1-3)

Count Row Percentage Column Percentage Total Percentage	Student's Playmates as Perceived by the Teacher				Row Total
	Younger Children	Children His Own Age	Older Children		
One	7 6.0 30.4 3.9	103 88.8 69.1 56.9	6 5.2 66.7 3.3	116 64.1	
Two	14 23.3 60.9 7.7	43 71.7 28.9 23.8	3 5.0 33.3 1.7	60 33.1	
Three	2 40.0 8.7 1.1	3 60.0 2.0 1.7	0 0 0 0	5 2.8	
Column total	23 12.7	149 82.3	9 5.0	181 100.0	

Raw chi square = 14.30539; 4 degrees of freedom; significance = .0064.
 Number of missing observations = 18.

APPENDIX E

SIGNIFICANT DATA FOR THE HYPOTHESES

GRADES 4-6

HO: 2.2

Table E.1 Student's Verbal I.Q. below 100 by number of failures
(Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Verbal I.Q. Below 100		Row Total
	Yes	No	
Number of Failures			
None	52	47	99
	52.5	47.5	70.2
	59.1	88.7	
	36.9	33.3	
One	36	6	42
	85.7	14.3	29.8
	40.9	11.3	
	25.5	4.3	
Column total	88	53	141
	62.4	37.6	100.0

Corrected chi square = 12.46772; 1 degree of freedom;
significance = .0004. Number of missing observations = 17.

H0: 2.2

Table E.2 Student's Performance I.Q. below 100 by number of failures
(Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Performance I.Q. Below 100		Row Total
	Yes	No	
Number of Failures			
None	37 37.4 56.1 26.2	62 62.6 82.7 44.0	99 70.2
One	29 69.0 43.9 20.6	13 31.0 17.3 9.2	42 29.8
Column total	66 46.8	75 53.2	141 100.0

Corrected chi square = 10.64422; 1 degree of freedom;
significance = .0011. Number of missing observations = 17.

H0: 2.2

Table E.3 Student's Full Scale I.Q. below 100 by number of failures
(Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Full Scale I.Q. Below 100		Row Total
	Yes	No	
None	47 47.5 56.6 33.3	52 52.5 89.7 36.9	99 70.2
One	36 85.7 43.4 25.5	6 14.3 10.3 4.3	42 29.8
Column total	83 58.9	58 41.1	141 100.0

Corrected chi square = 16.26410; 1 degree of freedom;
significance = .0001. Number of missing observations = 17.

H0: 4.2

Table E.4 Well adjusted as perceived by the teacher by student's behavior when faced with a difficult task as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Yes		27	23	15	65
		41.5	35.4	23.1	55.1
		41.5	95.8	51.7	
		22.9	19.5	12.7	
No		38	1	14	53
		71.7	1.9	26.4	44.9
		58.5	4.2	48.3	
		32.2	0.8	11.9	
Column total		65	24	29	118
		55.1	20.3	24.6	100.0

Raw chi square = 21.06015; 2 degrees of freedom; significance = .0000.
Number of missing observations = 40.

HO: 4.3

Table E.5 Well adjusted as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Yes		30	35	3	68
		44.1	51.5	4.4	54.0
		39.5	77.8	60.0	
		23.8	27.8	2.4	
No		46	10	2	58
		79.3	17.2	3.4	46.0
		60.5	22.2	40.0	
		36.5	7.9	1.6	
Column total		76	45	5	126
		60.3	35.7	4.0	100.0

Raw chi square = 16.76929; 2 degrees of freedom; significance = .0002.
 Number of missing observations = 32.

HO: 4.4

Table E.6 Well adjusted as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Well Adjusted as Perceived by the Teacher				
	7	62	4	73
	9.6	84.9	5.5	57.5
	41.2	68.1	21.1	
	5.5	48.8	3.1	
No	10	29	15	54
	18.5	53.7	27.8	42.5
	58.8	31.9	78.9	
	7.9	22.8	11.8	
Column total	17	91	19	127
	13.4	71.7	15.0	100.0

Raw chi square = 16.38917; 2 degrees of freedom; significance = .0003.

Number of missing observations = 31.

H0: 4.6

Table E.7 Well adjusted as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher				
	Apathetic	Emotionally Calm	Excitable		
Yes	7	47	18		72
	9.7	65.3	25.0		56.3
	35.0	83.9	34.6		
	5.5	36.7	14.1		
No	13	9	34		56
	23.2	16.1	60.7		43.8
	65.0	16.1	65.4		
	10.2	7.0	26.6		
Column total	20	56	52		128
	15.6	43.8	40.6		100.0

Raw chi square = 30.99306; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 30.

HO: 4.7

Table E.8 Well adjusted as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Relationship With Other Students as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Shy and Bashful	Responsive	Bold and Aggressive	
Yes		9 11.7 40.9 7.0	59 76.6 75.6 45.7	9 11.7 31.0 7.0	77 59.7
No		13 25.0 59.1 10.1	19 36.5 24.4 14.7	20 38.5 69.0 15.5	52 40.3
Column total		22 17.1	78 60.5	29 22.5	129 100.0

Raw chi square = 21.37016; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 29.

HO: 4.9

Table E.9 Well adjusted as perceived by the teacher by student's playmates as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Playmates as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Younger Children	Children His Own Age	Older Children	
Yes		4	63	4	71
		5.6	88.7	5.6	57.3
		21.1	63.6	66.7	
		3.2	50.8	3.2	
No		15	36	2	53
		28.3	67.9	3.8	42.7
		78.9	36.4	33.3	
		12.1	29.0	1.6	
Column total		19	99	6	124
		15.3	79.8	4.8	100.0

Raw chi square = 12.03952; 2 degrees of freedom; significance = .0024.
 Number of missing observations = 34.

HO: 5.2

Table E.10 Well liked by other students as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
Student's Behavior When Faced With a Problem as Perceived by the Teacher	Yes	No	
Easily discouraged	54 68.4 50.5 39.7	25 31.6 86.2 18.4	79 58.1
Reasonably persistent	48 94.1 44.9 35.3	3 5.9 10.3 2.2	51 37.5
Blindly aggressive	5 83.3 4.7 3.7	1 16.7 3.4 0.7	6 4.4
Column total	107 78.7	29 21.3	136 100.0

Raw chi square = 12.34282; 2 degrees of freedom; significance = .0021.
Number of missing observations = 22.

HO: 5.3

Table E.11 Well liked by other students as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Over-dependent	14 82.4 13.0 10.3	3 17.6 10.7 2.2	17 12.5
Accepting	85 85.0 78.7 62.5	15 15.0 53.6 11.0	100 73.5
Resistant	9 47.4 8.3 6.6	10 52.6 35.7 7.4	19 14.0
Column total	108 79.4	28 20.6	136 100.0

Raw chi square = 13.93233; 2 degrees of freedom; significance = .0009.
 Number of missing observations = 22.

HO: 5.5

Table E.12 Well liked by other students as perceived by the teacher
by student's behavior in the classroom as perceived by the
teacher (Grades 4-6)

Student's Behavior in the Classroom as Perceived by the Teacher	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
	Count	Count	
Apathetic	15 71.4 14.2 11.1	6 28.6 20.7 4.4	21 15.6
Emotionally calm	58 95.1 54.7 43.0	3 4.9 10.3 2.2	61 45.2
Excitable	33 62.3 31.1 24.4	20 37.7 69.0 14.8	53 39.3
Column total	106 78.5	29 21.5	135 100.0

Raw chi square = 18.84969; 2 degrees of freedom; significance = .0001.
Number of missing observations = 23.

HO: 5.6

Table E.13 Well liked by other students as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
Student's Relationship With Other Students as Perceived by the Teacher	Yes	No	
Shy and bashful	18 69.2 16.2 13.1	8 30.8 30.8 5.8	26 19.0
Responsive	76 92.7 68.5 55.5	6 7.3 23.1 4.4	82 59.9
Bold and aggressive	17 58.6 15.3 12.4	12 41.4 46.2 8.8	29 21.2
Column total	111 81.0	26 19.0	137 100.0

Raw chi square = 19.06669; 2 degrees of freedom; significance = .0001.
Number of missing observations = 21.

HO: 5.8

Table E.14 Well liked by other students as perceived by the teacher
by student's playmates as perceived by the teacher
(Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Playmates as Perceived by the Teacher			
Younger children	11 52.4 10.4 8.3	10 47.6 37.0 7.5	21 15.8
Children his own age	90 84.9 84.9 67.7	16 15.1 59.3 12.0	106 79.7
Older children	5 83.3 4.7 3.8	1 16.7 3.7 0.8	6 4.5
Column total	106 79.7	27 20.3	133 100.0

Raw chi square = 11.51122; 2 degrees of freedom; significance = .0032.
Number of missing observations = 25.

H0: 6.5

Table E.15 Well liked by adults as perceived by the teacher by
 student's behavior when faced with a problem as perceived
 by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
Student's Behavior When Faced With a Problem as Perceived by the Teacher	Yes	No	
Easily discouraged	51 75.0 50.0 41.8	17 25.0 85.0 13.9	68 55.7
Reasonably persistent	47 97.9 46.1 38.5	1 2.1 5.0 0.8	48 39.3
Blindly aggressive	4 66.7 3.9 3.3	2 33.3 10.0 1.6	6 4.9
Column total	102 83.6	20 16.4	122 100.0

Raw chi square = 12.10282; 2 degrees of freedom; significance = .0024.
 Number of missing observations = 36.

HO: 6.8

Table E.16 Well liked by adults as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 4-6)

Count Row Percenttage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
Student's Behavior in the Classroom as Perceived by the Teacher	Yes	No	
Apathetic	13 72.2 13.1 10.7	5 27.8 21.7 4.1	18 14.8
Emotionally calm	56 94.9 56.6 45.9	3 5.1 13.0 2.5	59 48.4
Excitable	30 66.7 30.3 24.6	15 33.3 65.2 12.3	45 36.9
Column total	99 81.1	23 18.9	122 100.0

Raw chi square = 14.41575; 2 degrees of freedom; significance = .0007.
Number of missing observations = 36.

HO: 6.9

Table E.17 Well liked by adults as perceived by the teacher by
 student's relationship with other students as perceived
 by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
Student's Relationship With Other Students as Perceived by the Teacher	Yes	No	
Shy and bashful	18 78.3 17.3 14.4	5 21.7 23.8 4.0	23 18.4
Responsive	69 90.8 66.3 55.2	7 9.2 33.3 5.6	76 60.8
Bold and aggressive	17 65.4 16.3 13.6	9 34.6 42.9 7.2	26 20.8
Column total	104 83.2	21 16.8	125 100.0

Raw chi square = 9.43708; 2 degrees of freedom; significance = .0089.
 Number of missing observations = 33.

H0: 7.2

Table E.18 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Student's Behavior When Faced With a Problem as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Easily discouraged		54	1	15	70
		77.1	1.4	21.4	59.3
		79.4	4.2	57.7	
		45.8	0.8	12.7	
Reasonably persistent		13	23	7	43
		30.2	53.5	16.3	36.4
		19.1	95.8	26.9	
		11.0	19.5	5.9	
Blindly aggressive		1	0	4	5
		20.0	0	80.0	4.2
		1.5	0	15.4	
		0.8	0	3.4	
Column total		68	24	26	118
		57.6	20.3	22.0	100.0

Raw chi square = 56.29396; 4 degrees of freedom; significance = .0000.
Number of missing observations = 40.

HO: 7.5

Table E.19 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Intelligently	Acts Impulsively	
Apathetic	20 100.0 32.3 17.7	0 0 0 0	0 0 0 0	20 17.7
Emotionally calm	23 46.9 37.1 20.4	17 34.7 73.9 15.0	9 18.4 32.1 8.0	49 43.4
Excitable	19 43.2 30.6 16.8	6 13.6 26.1 5.3	19 43.2 67.9 16.8	44 38.9
Column total	62 54.9	23 20.4	28 24.8	113 100.0

Raw chi square = 30.86067; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 45.

H0: 7.7

Table E.20 Student's behavior when faced with a difficult task as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Quiet	20	16	13	49
	40.8	32.7	26.5	40.8
	30.3	66.7	43.3	
	16.7	13.3	10.8	
Normally communicative	29	3	2	34
	85.3	8.8	5.9	28.3
	43.9	12.5	6.7	
	24.2	2.5	1.7	
Very talkative	17	5	15	37
	45.9	13.5	40.5	30.8
	25.8	20.8	50.0	
	14.2	4.2	12.5	
Column total	66	24	30	120
	55.0	20.0	25.0	100.0

Raw chi square = 23.43222; 4 degrees of freedom; significance = .0001.
 Number of missing observations = 38.

HO: 9.2

Table E.21 Student's behavior regarding authority as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Student's Behavior When Faced With a Problem as Perceived by the Teacher	11 15.5 68.8 8.8	47 66.2 51.1 37.6	13 18.3 76.5 10.4	71 56.8
	5 10.2 31.3 4.0	43 87.8 46.7 34.4	1 2.0 5.9 0.8	49 39.2
	0 0 0 0	2 40.0 2.2 1.6	3 60.0 17.6 2.4	5 4.0
	16 12.8	92 73.6	17 13.6	125 100.0
Easily discouraged				
Reasonably persistent				
Blindly aggressive				
Column total				

Raw chi square = 17.81723; 4 degrees of freedom; significance = .0013.
 Number of missing observations = 33.

HO: 9.3

Table E.22 Student's behavior regarding authority as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Shy and bashful	4	18	0	22
	18.2	81.8	0	17.5
	30.8	18.6	0	
	3.2	14.3	0	
Responsive	8	66	5	79
	10.1	83.5	6.3	62.7
	61.5	68.0	31.3	
	6.3	52.4	4.0	
Bold and aggressive	1	13	11	25
	4.0	52.0	44.0	19.8
	7.7	13.4	68.8	
	0.8	10.3	8.7	
Column total	13	97	16	126
	10.3	77.0	12.7	100.0

Raw chi square = 29.43120; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 32.

HO: 9.4

Table E.23 Student's behavior regarding authority as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Quiet	5	48	4	57
	8.8	84.2	7.0	43.8
	29.4	50.0	23.5	
	3.8	36.9	3.1	
Normally communicative	9	27	1	37
	24.3	73.0	2.7	28.5
	52.9	28.1	5.9	
	6.9	20.8	0.8	
Very talkative	3	21	12	36
	8.3	58.3	33.3	27.7
	17.6	21.9	70.6	
	2.3	16.2	9.2	
Column total	17	96	17	130
	13.1	73.8	13.1	100.0

Raw chi square = 22.95418; 4 degrees of freedom; significance = .0001.
 Number of missing observations = 28.

HO: 10.2

Table E.24 Student's leadership as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior When Faced With a Problem as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Easily discouraged		37	27	12	76
		48.7	35.5	15.8	58.0
		74.0	46.6	52.2	
		28.2	20.6	9.2	
Reasonably persistent		13	28	8	49
		26.5	57.1	16.3	37.4
		26.0	48.3	34.8	
		9.9	21.4	6.1	
Blindly aggressive		0	3	3	6
		0	50.0	50.0	4.6
		0	5.2	13.0	
		0	2.3	2.3	
Column total		50	58	23	131
		38.2	44.3	17.6	100.0

Raw chi square = 13.19605; 4 degrees of freedom; significance = .0104.

Number of missing observations = 27.

HO: 10.3

Table E.25 Student's leadership as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior Regarding Authority as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Over-dependent		10	7	0	17
		58.8	41.2	0	13.2
		20.0	12.1	0	
		7.8	5.4	0	
Accepting		38	46	13	97
		39.2	47.4	13.4	75.2
		76.0	79.3	61.9	
		29.5	35.7	10.1	
Resistant		2	5	8	15
		13.3	33.3	53.3	11.6
		4.0	8.6	38.1	
		1.6	3.9	6.2	
Column total		50	58	21	129
		38.8	45.0	16.3	100.0

Raw chi square = 20.81988; 4 degrees of freedom; significance = .0003.
 Number of missing observations = 29.

H0: 10.5

Table E.26 Student's leadership as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Relationship With Other Students as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Shy and bashful		17	8	1	26
		65.4	30.8	3.8	19.4
		36.2	12.7	4.2	
		12.7	6.0	0.7	
Responsive		25	45	8	78
		32.1	57.7	10.3	58.2
		53.2	71.4	33.3	
		18.7	33.6	6.0	
Bold and aggressive		5	10	15	30
		16.7	33.3	50.0	22.4
		10.6	15.9	62.5	
		3.7	7.5	11.2	
Column total		47	63	24	134
		35.1	47.0	17.9	100.0

Raw chi square = 37.12794; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 24.

HO: 10.6

Table E.27 Student's leadership as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Communication Pattern as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Quiet		14	31	7	52
		26.9	59.6	13.5	39.1
		28.6	49.2	33.3	
		10.5	23.3	5.3	
Normally communicative		28	11	1	40
		70.0	27.5	2.5	30.1
		57.1	17.5	4.8	
		21.1	8.3	0.8	
Very talkative		7	21	13	41
		17.1	51.2	31.7	30.8
		14.3	33.3	61.9	
		5.3	15.8	9.8	
Column total		49	63	21	133
		36.8	47.4	15.8	100.0

Raw chi square = 34.01503; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 25.

HO: 11.3

Table E.28 Student's behavior in the classroom as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			
	Over-Dependent	Accepting	Resistant	Total
Apathetic	3	14	4	21
	14.3	66.7	19.0	16.5
	20.0	14.9	22.2	
	2.4	11.0	3.1	
Emotionally calm	6	51	1	58
	10.3	87.9	1.7	45.7
	40.0	54.3	5.6	
	4.7	40.2	0.8	
Excitable	6	29	13	48
	12.5	60.4	27.1	37.8
	40.0	30.9	72.2	
	4.7	22.8	10.2	
Column total	15	94	18	127
	11.8	74.0	14.2	100.0

Raw chi square = 15.44241; 4 degrees of freedom; significance = .0039.
 Number of missing observations = 31.

HO: 11.4

Table E.29 Student's behavior in the classroom as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
	Apathetic	Emotionally Calm	Excitable		
Shy and bashful	6 28.6 31.6 4.8	8 38.1 13.6 6.5	7 33.3 15.2 5.6		21 16.9
Responsive	11 14.5 57.9 8.9	45 59.2 76.3 36.3	20 26.3 43.5 16.1		76 61.3
Bold and aggressive	2 7.4 10.5 1.6	6 22.2 10.2 4.8	19 70.4 41.3 15.3		27 21.8
Column total	19 15.3	59 47.6	46 37.1		124 100.0

Raw chi square = 20.27131; 4 degrees of freedom; significance = .0004.
 Number of missing observations = 34.

HO: 11.5

Table E.30 Student's behavior in the classroom as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 4-6)

Count Row Percentage Column Percentage Total Percentage		Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
Student's Communication Pattern as Perceived by the Teacher		Apathetic	Emotionally Calm	Excitable		
Quiet		6	29	19	54	
		11.1	53.7	35.2	42.5	
		31.6	50.9	37.3		
		4.7	22.8	15.0		
Normally communicative		9	17	7	33	
		27.3	51.5	21.2	26.0	
		47.4	29.8	13.7		
		7.1	13.4	5.5		
Very talkative		4	11	25	40	
		10.0	27.5	62.5	31.5	
		21.1	19.3	49.0		
		3.1	8.7	19.7		
Column total		19	57	51	127	
		15.0	44.9	40.2	100.0	

Raw chi square = 16.74336; 4 degrees of freedom; significance = .0022.
 Number of missing observations = 31.

H0: 13.3

Table E.31 Student's communication pattern as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 4-6)

Count		Student's Communication Pattern as Perceived by the Teacher			Row Total
Row Percentage	Column Percentage	Quiet	Normally Communicative	Very Talkative	
Student's Relationship With Other Students as Perceived by the Teacher					
Shy and bashful		6	16	2	24
		25.0	66.7	8.3	18.5
		10.7	47.1	5.0	
		4.6	12.3	1.5	
Responsive		45	17	17	79
		57.0	21.5	21.5	60.8
		80.4	50.0	42.5	
		34.6	13.1	13.1	
Bold and aggressive		5	1	21	27
		18.5	3.7	77.8	20.8
		8.9	2.9	52.5	
		3.8	0.8	16.2	
Column total		56	34	40	130
		43.1	26.2	30.8	100.0

Raw chi square = 55.56409; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 28.

HO: 14.1

Table E.32 Student's playmates as perceived by the teacher by number of failures
(Grades 4-6)

Count Row Percentage Column Percentage Total Percentage	Student's Playmates as Perceived by the Teacher				Row Total
				Older Children	
	Younger Children	Children His Own Age			
One	11	80	5	5	96
	11.5	83.3	5.2	5.2	71.6
	52.4	74.8	83.3	83.3	
	8.2	59.7	3.7	3.7	
Two	8	27	1	1	36
	22.2	75.0	2.8	2.8	26.9
	38.1	25.2	16.7	16.7	
	6.0	20.1	0.7	0.7	
Three	2	0	0	0	2
	100.0	0	0	0	1.5
	9.5	0	0	0	
	1.5	0	0	0	
Column total	21	107	6	6	134
	15.7	79.9	4.5	4.5	100.0

Raw chi square = 13.43373; 4 degrees of freedom; significance = .0093.
 Number of missing observations = 24.

H0: 3.7

Table F.1 Academic problem as perceived by the teacher by well liked by adults as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
Academic Problem as Perceived by the Teacher	Yes	No	
Deficiency in components of the reading act	44 91.7 49.4 40.0	4 8.3 19.0 3.6	48 43.6
Intellectual functioning	7 100.0 7.9 6.4	0 0 0 0	7 6.4
Emotional-social behavior	6 54.5 6.7 5.5	5 45.5 23.8 4.5	11 10.0
Deficiency in components of the reading act and intellectual functioning	9 60.0 10.1 8.2	6 40.0 28.6 5.5	15 13.6
Deficiency in components of the reading act and sensory-perception	2 100.0 2.2 1.8	0 0 0 0	2 1.8
Deficiency in components of the reading act and emotional-social behavior	18 90.0 20.2 16.4	2 10.0 9.5 1.8	20 18.2
Intellectual functioning and sensory-perception	2 100.0 2.2 1.8	0 0 0 0	2 1.8
Intellectual functioning and emotional-social behavior	1 20.0 1.1 0.9	4 80.0 19.0 3.6	5 4.5
Column total	89 80.9	21 19.1	110 100.0

Raw chi square = 28.46620; 7 degrees of freedom; significance = .0002.
 Number of missing observations = 30.

APPENDIX F

SIGNIFICANT DATA FOR THE HYPOTHESES

GRADES 7-8

HO: 4.2

Table F.2 Well adjusted as perceived by the teacher by student's behavior when faced with a difficult task as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Yes		26	21	3	50
		52.0	42.0	6.0	47.2
		41.3	87.5	15.8	
		24.5	19.8	2.8	
No		37	3	16	56
		66.1	5.4	28.6	52.8
		58.7	12.5	84.2	
		34.9	2.8	15.1	
Column total		63	24	19	106
		59.4	22.6	17.9	100.0

Raw chi square = 24.05281; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 34.

HO: 4.3

Table F.3 Well adjusted as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Yes		24 45.3 34.3 21.6	29 54.7 78.4 26.1	0 0 0 0	53 47.7
No		46 79.3 65.7 41.4	8 13.8 21.6 7.2	4 6.9 100.0 3.6	58 52.3
Column total		70 63.1	37 33.3	4 3.6	111 100.0

Raw chi square = 22.65395; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 29.

HO: 4.4

Table F.4 Well adjusted as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Yes	5	51	2	58
	8.6	87.9	3.4	51.3
	45.5	59.3	12.5	
	4.4	45.1	1.8	
No	6	35	14	55
	10.9	63.6	25.5	48.7
	54.5	40.7	87.5	
	5.3	31.0	12.4	
Column total	11	86	16	113
	9.7	76.1	14.2	100.0

Raw chi square = 11.99646; 2 degrees of freedom; significance = .0025.
 Number of missing observations = 27.

H0: 4.6

Table F.5 Well adjusted as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Well Adjusted as Perceived by the Teacher				
Yes	4 7.4 14.3 3.7	41 75.9 80.4 37.6	9 16.7 30.0 8.3	54 49.5
No	24 43.6 85.7 22.0	10 18.2 19.6 9.2	21 38.2 70.0 19.3	55 50.5
Column total	28 25.7	51 46.8	30 27.5	109 100.0

Raw chi square = 37.92287; 2 degrees of freedom; significance = .0000.
Number of missing observations = 31.

H0: 4.7

Table F.6 Well adjusted as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Relationship With Other Students as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Shy and Bashful	Responsive	Bold and Aggressive	
Yes		6 11.1 20.0 5.5	41 75.9 68.3 37.6	7 13.0 36.8 6.4	54 49.5
No		24 43.6 80.0 22.0	19 34.5 31.7 17.4	12 21.8 63.2 11.0	55 50.5
Column total		30 27.5	60 55.0	19 17.4	109 100.0

Raw chi square = 20.17498; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 31.

H0: 5.5

Table F.7 Well liked by other students as perceived by the teacher
by student's behavior in the classroom as perceived by the
teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage			
Student's Behavior in the Classroom as Perceived by the Teacher	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Apathetic	15 51.7 17.9 13.0	14 48.3 45.2 12.2	29 25.2
Emotionally calm	47 85.5 56.0 40.9	8 14.5 25.8 7.0	55 47.8
Excitable	22 71.0 26.2 19.1	9 29.0 29.0 7.8	31 27.0
Column total	84 73.0	31 27.0	115 100.0

Raw chi square = 11.06471; 2 degrees of freedom; significance = .0040.
Number of missing observations = 25.

HO: 5.6

Table F.8 Well liked by other students as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
Student's Relationship With Other Students as Perceived by the Teacher	Yes	No	
Shy and bashful	16 51.6 18.8 14.0	15 48.4 51.7 13.2	31 27.2
Responsive	53 88.3 62.4 46.5	7 11.7 24.1 6.1	60 52.6
Bold and aggressive	16 69.6 18.8 14.0	7 30.4 24.1 6.1	23 20.2
Column total	85 74.6	29 25.4	114 100.0

Raw chi square = 14.90967; 2 degrees of freedom; significance = .0006.
Number of missing observations = 26.

HO: 5.7

Table F.9 Well liked by other students as perceived by the teacher by
 student's communication pattern as perceived by the teacher
 (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
Student's Communication Pattern as Perceived by the Teacher	Yes	No	
Quiet	38 90.5 43.7 32.8	4 9.5 13.8 3.4	42 36.2
Normally communicative	33 62.3 37.9 28.4	20 37.7 69.0 17.2	53 45.7
Very talkative	16 76.2 18.4 13.8	5 23.8 17.2 4.3	21 18.1
Column total	87 75.0	29 25.0	116 100.0

Raw chi square = 9.96586; 2 degrees of freedom; significance = .0069.
 Number of missing observations = 24.

HO: 6.6

Table F.10 Well liked by adults as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
	Student's Behavior Regarding Authority as Perceived by the Teacher	Yes	
Over-dependent	11	1	12
	91.7	8.3	11.8
	12.9	5.9	
	10.8	1.0	
Accepting	66	8	74
	89.2	10.8	72.5
	77.6	47.1	
	64.7	7.8	
Resistant	8	8	16
	50.0	50.0	15.7
	9.4	47.1	
	7.8	7.8	
Column total	85	17	102
	83.3	16.7	100.0

Raw chi square = 15.22703; 2 degrees of freedom; significance = .0005.
Number of missing observations = 38.

HO: 6.8

Table F.11 Well liked by adults as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
Apathetic	13 54.2 16.5 13.7	11 45.8 68.8 11.6	24 25.3
Emotionally calm	44 95.7 55.7 46.3	2 4.3 12.5 2.1	46 48.4
Excitable	22 88.0 27.8 23.2	3 12.0 18.8 3.2	25 26.3
Column total	79 83.2	16 16.8	95 100.0

Raw chi square = 19.94844; 2 degrees of freedom; significance = .0000.
Number of missing observations = 45.

H0: 7.2

Table F.12 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Student's Behavior When Faced With a Problem as Perceived by the Teacher				
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Easily discouraged	55	5	13		73
	75.3	6.8	17.8		66.4
	82.1	20.8	68.4		
	50.0	4.5	11.8		
Reasonably persistent	10	19	5		34
	29.4	55.9	14.7		30.9
	14.9	79.2	26.3		
	9.1	17.3	4.5		
Blindly aggressive	2	0	1		3
	66.7	0	33.3		2.7
	3.0	0	5.3		
	1.8	0	0.9		
Column total	67	24	19		110
	60.9	21.8	17.3		100.0

Raw chi square = 34.87464; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 30.

H0: 7.4

Table F.13 Student's behavior when faced with a difficult task as perceived by the teacher by student's leadership as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Generally avoids leadership	48	10	7	65
	73.8	15.4	10.8	57.0
	70.6	41.7	31.8	
	42.1	8.8	6.1	
At times he either leads or follows	14	12	12	38
	36.8	31.6	31.6	33.3
	20.6	50.0	54.5	
	12.3	10.5	10.5	
Usually seeks to lead	6	2	3	11
	54.5	18.2	27.3	9.6
	8.8	8.3	13.6	
	5.3	1.8	2.6	
Column total	68	24	22	114
	59.6	21.1	19.3	100.0

Raw chi square = 14.37542; 4 degrees of freedom; significance = .0062.
 Number of missing observations = 26.

H0: 7.5

Table F.14 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage		Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
Student's Behavior in the Classroom as Perceived by the Teacher		Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Apathetic		25	1	3	29	
		86.2	3.4	10.3	28.2	
		40.3	4.3	16.7		
		24.3	1.0	2.9		
Emotionally calm		23	19	3	45	
		51.1	42.2	6.7	43.7	
		37.1	82.6	16.7		
		22.3	18.4	2.9		
Excitable		14	3	12	29	
		48.3	10.3	41.4	28.2	
		22.6	13.0	66.7		
		13.6	2.9	11.7		
Column total		62	23	18	103	
		60.2	22.3	17.5	100.0	

Raw chi square = 32.36502; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 37.

HO: 5.2

Table F.15 Student's behavior regarding authority as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Easily discouraged	13	44	14	71
	18.3	62.0	19.7	61.2
	86.7	53.7	73.7	
	11.2	37.9	12.1	
Reasonably persistent	2	37	1	40
	5.0	92.5	2.5	34.5
	13.3	45.1	5.3	
	1.7	31.9	0.9	
Blindly aggressive	0	1	4	5
	0	20.0	80.0	4.3
	0	1.2	21.1	
	0	0.9	3.4	
Column total	15	82	19	116
	12.9	70.7	16.4	100.0

Raw chi square = 26.99675; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 24.

HO: 9.3

Table F.16 Student's behavior regarding authority as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Shy and bashful	5	24	2	31
	16.1	77.4	6.5	27.0
	33.3	29.6	10.5	
	4.3	20.9	1.7	
Responsive	5	51	6	62
	8.1	82.3	9.7	53.9
	33.3	63.0	31.6	
	4.3	44.3	5.2	
Bold and aggressive	5	6	11	22
	22.7	27.3	50.0	19.1
	33.3	7.4	57.9	
	4.3	5.2	9.6	
Column total	15	81	19	115
	13.0	70.4	16.5	100.0

Raw chi square = 28.83530; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 25.

HO: 9.5

Table F.17 Student's behavior regarding authority as perceived by the teacher by student's playmates as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Younger children	4	7	2	13
	30.8	53.8	15.4	13.8
	40.0	9.9	15.4	
	4.3	7.4	2.1	
Children his own age	6	62	8	76
	7.9	81.6	10.5	80.9
	60.0	87.3	61.5	
	6.4	66.0	8.5	
Older children	0	2	3	5
	0	40.0	60.0	5.3
	0	2.8	23.1	
	0	2.1	3.2	
Column total	10	71	13	94
	10.6	75.5	13.8	100.0

Raw chi square = 16.36425; 4 degrees of freedom; significance = .0026.
 Number of missing observations = 46.

HO: 10.2

Table F.18 Student's leadership as perceived by the teacher by the student's behavior when faced with a problem as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior When Faced With a Problem as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Easily discouraged		50	22	7	79
		63.3	27.8	8.9	64.8
		72.5	57.9	46.7	
		41.0	18.0	5.7	
Reasonably persistent		18	15	5	38
		47.4	39.5	13.2	31.1
		26.1	39.5	33.3	
		14.8	12.3	4.1	
Blindly aggressive		1	1	3	5
		20.0	20.0	60.0	4.1
		1.4	2.6	20.0	
		0.8	0.8	2.5	
Column total		69	38	15	122
		56.6	31.1	12.3	100.0

Raw chi square = 13.73913; 4 degrees of freedom; significance = .0082.
 Number of missing observations = 18.

HO: 10.5

Table F.19 Student's leadership as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Tow Total
	Student's Relationship With Other Students as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Shy and bashful		33	1	1	35
		94.3	2.9	2.9	29.9
		51.6	2.7	6.3	
		28.2	0.9	0.9	
Responsive		25	28	6	59
		42.4	47.5	10.2	50.4
		39.1	75.7	37.5	
		21.4	23.9	5.1	
Bold and aggressive		6	8	9	23
		26.1	34.8	39.1	19.7
		9.4	21.6	56.3	
		5.1	6.8	7.7	
Column total		64	37	16	117
		54.7	31.6	13.7	100.0

Raw chi square = 43.44010; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 23.

HO: 10.6

Table F.20 Student's leadership as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead		
Quiet	22	14	5		41
	53.7	34.1	12.2		34.2
	32.4	35.9	38.5		
	18.3	11.7	4.2		
Normally communicative	41	14	2		57
	71.9	24.6	3.5		47.5
	60.3	35.9	15.4		
	34.2	11.7	1.7		
Very talkative	5	11	6		22
	22.7	50.0	27.3		18.3
	7.4	28.2	46.2		
	4.2	9.2	5.0		
Column total	68	39	13		120
	56.7	32.5	10.8		100.0

Raw chi square = 18.47458; 4 degrees of freedom; significance = .0010.
 Number of missing observations = 20.

H0: 10.7

Table F.21 Student's leadership as perceived by the teacher by student's playmates as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead		
Student's Playmates as Perceived by the Teacher					
Younger children	6 42.9 12.0 6.1	5 35.7 13.5 5.1	3 21.4 27.3 3.1		14 14.3
Children his own age	43 55.1 86.0 43.9	30 38.5 81.1 30.6	5 6.4 45.5 5.1		78 79.6
Older children	1 16.7 2.0 1.0	2 33.3 5.4 2.0	3 50.0 27.3 3.1		6 6.1
Column total	50 51.0	37 37.8	11 11.2		98 100.0

Raw chi square = 12.83193; 4 degrees of freedom; significance = .0121.
 Number of missing observations = 42.

HO: 11.2

Table F.22 Student's behavior in the classroom as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
	Apathetic	Emotionally Calm	Excitable		
Easily discouraged	25	23	23	71	71
	35.2	32.4	32.4	64.0	64.0
	83.3	46.0	74.2		
	22.5	20.7	20.7		
Reasonably persistent	3	26	6	35	35
	8.6	74.3	17.1	31.5	31.5
	10.0	52.0	19.4		
	2.7	23.4	5.4		
Blindly aggressive	2	1	2	5	5
	40.0	20.0	40.0	4.5	4.5
	6.7	2.0	6.5		
	1.8	0.9	1.8		
Column total	30	50	31	111	111
	27.0	45.0	27.9	100.0	100.0

Raw chi square = 18.56992; 4 degrees of freedom; significance = .0010.
 Number of missing observations = 29.

H0: 11.5

Table F.23 Student's behavior in the classroom as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Quiet	7	19	11	37
	18.9	51.4	29.7	33.6
	23.3	35.8	40.7	
	6.4	17.3	10.0	
Normally communicative	22	27	3	52
	42.3	51.9	5.8	47.3
	73.3	50.9	11.1	
	20.0	24.5	2.7	
Very talkative	1	7	13	21
	4.8	33.3	61.9	19.1
	3.3	13.2	48.1	
	0.9	6.4	11.8	
Column total	30	53	27	110
	27.3	48.2	24.5	100.0

Raw chi square = 30.16287; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 30.

H0: 13.3

Table F.24 Student's communication pattern as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 7-8)

Count Row Percentage Column Percentage Total Percentage	Student's Relationship With Other Students as Perceived by the Teacher	Student's Communication Pattern as Perceived by the Teacher			Row Total
		Quiet	Normally Communicative	Very Talkative	
Shy and bashful		4	28	0	32
		12.5	87.5	0	28.6
		10.0	56.0	0	
		3.6	25.0	0	
Responsive		30	20	10	60
		50.0	33.3	16.7	53.6
		75.0	40.0	45.5	
		26.8	17.9	8.9	
Bold and aggressive		6	2	12	20
		30.0	10.0	60.0	17.9
		15.0	4.0	54.5	
		5.4	1.8	10.7	
Column total		40	50	22	112
		35.7	44.6	19.6	100.0

Raw chi square = 51.84073; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 28.

HO: 14.2

Table F.25 Student's playmates as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 7-8)

Count		Student's Playmates as Perceived by the Teacher			Row Total
Row Percentage	Column Percentage	Younger Children	Children His Own Age	Older Children	
Student's Relationship With Other Students as Perceived by the Teacher					
Shy and bashful		5	15	0	20
		25.0	75.0	0	22.5
		41.7	21.1	0	
		5.6	16.9	0	
Responsive		6	45	1	52
		11.5	86.5	1.9	58.4
		50.0	63.4	16.7	
		6.7	50.6	1.1	
Bold and aggressive		1	11	5	17
		5.9	64.7	29.4	19.1
		8.3	15.5	83.3	
		1.1	12.4	5.6	
Column total		12	71	6	89
		13.5	79.8	6.7	100.0

Raw chi square = 19.77994; 4 degrees of freedom; significance = .0006.
 Number of missing observations = 51.

APPENDIX G

SIGNIFICANT DATA FOR THE HYPOTHESES

GRADES 9-12

HO: 2.2

Table G.1 Student's Verbal I.Q. below 100 by well adjusted as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Verbal I.Q. Below 100		Row Total
	Yes	No	
Well Adjusted as Perceived by the Teacher			
Yes	28	37	65
	43.1	56.9	58.0
	45.9	72.5	
	25.0	33.0	
No	33	14	47
	70.2	29.8	42.0
	54.1	27.5	
	29.5	12.5	
Column total	61	51	112
	54.5	45.5	100.0

Corrected chi square = 7.04151; 1 degree of freedom; significance = .0080.
 Number of missing observations = 31.

HO: 2.2

Table G.2 Student's Full Scale I.Q. below 100 by number of failures
(Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Full Scale I.Q. Below 100		Row Total
	Yes	No	
Number of Failures			
None	39 41.9 60.9 29.5	54 58.1 79.4 40.9	93 70.5
One	25 69.4 39.1 18.9	11 30.6 16.2 8.3	36 27.3
Two	0 0 0 0	2 100.0 2.9 1.5	2 1.5
Three	0 0 0 0	1 100.0 1.5 0.8	1 0.8
Column total	64 48.5	68 51.5	132 100.0

Raw chi square = 10.75246; 3 degrees of freedom; significance = .0131.
 Number of missing observations = 11.

H0: 2.7

Table G.3 Student's Verbal I.Q. below 100 by student's behavior when faced with a problem as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher			Row Total
	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Student's Verbal I.Q. Below 100				
Yes	48 72.7 70.6 40.7	18 27.3 37.5 15.3	0 0 0 0	66 55.9
No	20 38.5 29.4 16.9	30 57.7 62.5 25.4	2 3.8 100.0 1.7	52 44.1
Column total	68 57.6	48 40.7	2 1.7	118 100.0

Raw chi square = 15.08068; 2 degrees of freedom; significance = .0005.
 Number of missing observations = 25.

H0: 2.8

Table G.4 Student's Performance I.Q. below 100 by student's leadership as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher			Row Total
	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Student's Performance I.Q. Below 100				
Yes	37 80.4 51.4 32.7	8 17.4 25.0 7.1	1 2.2 11.1 0.9	46 40.7
No	35 52.2 48.6 31.0	24 35.8 75.0 21.2	8 11.9 88.9 7.1	67 59.3
Column total	72 63.7	32 28.3	9 8.0	113 100.0

Raw chi square = 9.94066; 2 degrees of freedom; significance = .0069.
 Number of missing observations = 30.

HO: 2.9

Table G.5 Student's Verbal I.Q. below 100 by student's behavior in the classroom as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Student's Verbal I.Q. Below 100				
Yes	24 34.8 75.0 20.0	31 44.9 45.6 25.8	14 20.3 70.0 11.7	69 57.5
No	8 15.7 25.0 6.7	37 72.5 54.4 30.8	6 11.8 30.0 5.0	51 42.5
Column total	32 26.7	68 56.7	20 16.7	120 100.0

Raw chi square = 9.23725; 2 degrees of freedom; significance = .0099.
 Number of missing observations = 23.

HO: 4.2

Table G.6 Well adjusted as perceived by the teacher by student's behavior when faced with a difficult task as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Yes		12 21.1 25.5 11.9	38 66.7 92.7 37.6	7 12.3 53.8 6.9	57 56.4
No		35 79.5 74.5 34.7	3 6.8 7.3 3.0	6 13.6 46.2 5.9	44 43.6
Column total		47 46.5	41 40.6	13 12.9	101 100.0

Raw chi square = 40.20307; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 42.

HO: 4.3

Table G.7 Well adjusted as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Easily Discouraged	Reasonably Persistent	Blindly Aggressive	
Yes		34 51.5 81.0 30.6	25 37.9 48.1 22.5	7 10.6 41.2 6.3	66 59.5
No		8 17.8 19.0 7.2	27 60.0 51.9 24.3	10 22.2 58.8 9.0	45 40.5
Column total		42 37.8	52 46.8	17 15.3	111 100.0

Raw chi square = 38.36148; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 33.

H0: 4.4

Table G.8 Well adjusted as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Yes	4	57	4	65
	6.2	87.7	6.2	59.1
	30.8	70.4	25.0	
	3.6	51.8	3.6	
No	9	24	12	45
	20.0	53.3	26.7	40.9
	69.2	29.6	75.0	
	8.2	21.8	10.9	
Column total	13	81	16	110
	11.8	73.6	14.5	100.0

Raw chi square = 16.26898; 2 degrees of freedom; significance = .0003.
 Number of missing observations = 33.

HO: 4.5

Table G.9 Well adjusted as perceived by the teacher by student's leadership as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Well Adjusted as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Yes		24 40.7 39.3 23.3	29 49.2 85.3 28.2	6 10.2 75.0 5.8	59 57.3
		37 84.1 60.7 35.9	5 11.4 14.7 4.9	2 4.5 25.0 1.9	44 42.7
	No				
	Column total	61 59.2	34 33.0	8 7.8	103 100.0

Raw chi square = 19.95032; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 40.

HO: 4.6

Table G.10 Well adjusted as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Yes	5	49	8	62
	8.1	79.0	12.9	56.9
	19.2	79.0	38.1	
	4.6	45.0	7.3	
No	21	13	13	47
	44.7	27.7	27.7	43.1
	80.8	21.0	61.9	
	19.3	11.9	11.9	
Column total	26	62	21	109
	23.9	56.9	19.3	100.0

Raw chi square = 30.45234; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 34.

HO: 4.7

Table G.11 Well adjusted as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Relationship With Other Students as Perceived by the Teacher			Row Total
	Shy and Bashful	Responsive	Bold and Aggressive	
Yes	10	50	2	62
	16.1	80.6	3.2	59.6
	32.3	76.9	25.0	
	9.6	48.1	1.9	
No	21	15	6	42
	50.0	35.7	14.3	40.4
	67.7	23.1	75.0	
	20.2	14.4	5.8	
Column total	31	65	8	104
	29.8	62.5	7.7	100.0

Raw chi square = 21.70595; 2 degrees of freedom; significance = .0000.
 Number of missing observations = 39.

HO: 4.8

Table G.12 Well adjusted as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Communication Pattern as Perceived by the Teacher			Row Total
	Quiet	Normally Communicative	Very Talkative	
Well Adjusted as Perceived by the Teacher Yes	34 51.5 81.0 30.6	25 37.9 48.1 22.5	7 10.6 41.2 6.3	66 59.5
	8 17.8 19.0 7.2	27 60.0 51.9 24.3	10 22.2 58.8 9.0	45 40.5
	42 37.8	52 46.8	17 15.3	111 100.0

Raw chi square = 13.20110; 2 degrees of freedom; significance = .0014.
 Number of missing observations = 32.

HO: 5.1

Table G.13 Well liked by other students as perceived by the teacher
by student's behavior when faced with a difficult task as
perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher	Yes	No	
Withdraws from a situation	27 52.9 36.0 24.8	24 47.1 70.6 22.0	51 46.8
Faces the problem intelligently	39 86.7 52.0 35.8	6 13.3 17.6 5.5	45 41.3
Acts impulsively	9 69.2 12.0 8.3	4 30.8 11.8 3.7	13 11.9
Column total	75 68.8	34 31.2	109 100.0

Raw chi square = 12.67019; 2 degrees of freedom; significance = .0018.
Number of missing observations = 34.

HO: 5.2

Table G.14 Well liked by other students as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage			Row Total
	Well Liked by Other Students as Perceived by the Teacher		
	Yes	No	
Student's Behavior When Faced With a Problem as Perceived by the Teacher			
Easily discouraged	44 63.8 51.2 36.4	25 36.2 71.4 20.7	69 57.0
Reasonably persistent	42 84.0 48.8 34.7	8 16.0 22.9 6.6	50 41.3
Blindly aggressive	0 0 0 0	2 100.0 5.7 1.7	2 1.7
Column total	86 71.1	35 28.9	121 100.0

Raw chi square = 10.76918; 2 degrees of freedom; significance = .0046.
Number of missing observations = 22.

HO: 5.3

Table G.15 Well liked by other students as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
Student's Behavior Regarding Authority as Perceived by the Teacher	Yes	No	
Over-dependent	6 46.2 6.8 5.0	7 53.8 21.9 5.8	13 10.8
Accepting	73 81.1 83.0 60.8	17 18.9 53.1 14.2	90 75.0
Resistant	9 52.9 10.2 7.5	8 47.1 25.0 6.7	17 14.2
Column total	88 73.3	32 26.7	120 100.0

Raw chi square = 11.30990; 2 degrees of freedom; significance = .0035.
Number of missing observations = 23.

HO: 5.4

Table G.16 Well liked by other students as perceived by the teacher
by student's leadership as perceived by the teacher
(Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Leadership as Perceived by the Teacher			
Generally avoids leadership	44 63.8 54.3 38.9	25 36.2 78.1 22.1	69 61.1
At times he either leads or follows	32 91.4 39.5 28.3	3 8.6 9.4 2.7	35 31.0
Usually seeks to lead	5 55.6 6.2 4.4	4 44.4 12.5 3.5	9 8.0
Column total	81 71.7	32 28.3	113 100.0

Raw chi square = 10.00507; 2 degrees of freedom; significance = .0067.
Number of missing observations = 30.

H0: 5.5

Table G.17 Well liked by other students as perceived by the teacher
by student's behavior in the classroom as perceived by the
teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Apathetic	13 44.8 15.1 10.7	16 55.2 45.7 13.2	29 24.0
Emotionally calm	60 83.3 69.8 49.6	12 16.7 34.3 9.9	72 59.5
Excitable	13 65.0 15.1 10.7	7 35.0 20.0 5.8	20 16.5
Column total	86 71.1	35 28.9	121 100.0

Raw chi square = 15.33958; 2 degrees of freedom; significance = .0005.
Number of missing observations = 22.

HO: 5.6

Table G.18 Well liked by other students as perceived by the teacher by
 student's relationship with other students as perceived by
 the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Relationship With Other Students as Perceived by the Teacher			
Shy and bashful	20 57.1 23.5 17.7	15 42.9 53.6 13.3	35 31.0
Responsive	61 87.1 71.8 54.0	9 12.9 32.1 8.0	70 61.9
Bold and aggressive	4 50.0 4.7 3.5	4 50.0 14.3 3.5	8 7.1
Column total	85 75.2	28 24.8	113 100.0

Raw chi square = 14.20504; 2 degrees of freedom; significance = .0008.
 Number of missing observations = 30.

HO: 5.7

Table G.19 Well liked by other students as perceived by the teacher by
 student's communication pattern as perceived by the teacher
 (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Other Students as Perceived by the Teacher		Row Total
	Yes	No	
Student's Communication Pattern as Perceived by the Teacher			
Quiet	40 90.9 44.4 32.5	4 9.1 12.1 3.3	44 35.8
Normally communicative	39 63.9 43.3 31.7	22 36.1 66.7 17.9	61 49.6
Very talkative	11 61.1 12.2 8.9	7 38.9 21.2 5.7	18 14.6
Column total	90 73.2	33 26.8	123 100.0

Raw chi square = 11.03666; 2 degrees of freedom; significance .0040.
 Number of missing observations = 20.

HO: 6.5

Table G.20 Well liked by adults as perceived by the teacher by
 student's behavior when faced with a problem as perceived
 by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
Student's Behavior When Faced With a Problem as Perceived by the Teacher			
Easily discouraged	43 74.1 50.6 41.3	15 25.9 78.9 14.4	58 55.8
Reasonably persistent	42 93.3 49.4 40.4	3 6.7 15.8 2.9	45 43.3
Blindly aggressive	0 0 0 0	1 100.0 5.3 1.0	1 1.0
Column total	85 81.7	19 18.3	104 100.0

Raw chi square = 10.77017; 2 degrees of freedom; significance = .0046.
 Number of missing observations = 39.

HO: 6.6

Table G.21 Well liked by adults as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 9-12)

Student's Behavior Regarding Authority as Perceived by the Teacher	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
	Count Row Percentage Column Percentage Total Percentage		
Over-dependent	7 58.3 8.6 7.0	5 41.7 26.3 5.0	12 12.0
Accepting	68 90.7 84.0 68.0	7 9.3 36.8 7.0	75 75.0
Resistant	6 46.2 7.4 6.0	7 53.8 36.8 7.0	13 13.0
Column total	81 81.0	19 19.0	100 100.0

Raw chi square = 18.81675; 2 degrees of freedom; significance = .0001.
 Number of missing observations = 43.

HO: 6.8

Table G.22 Well liked by students as perceived by the teacher by
 student's behavior in the classroom as perceived by
 the teacher (Grades 9-12)

Student's Behavior in the Classroom as Perceived by the Teacher	Well Liked by Adults as Perceived by the Teacher		Row Total
	Yes	No	
	Count Row Percentage Column Percentage Total Percentage		
Apathetic	12 57.1 14.6 11.9	9 42.9 47.4 8.9	21 20.8
Emotionally calm	58 95.1 70.7 57.4	3 4.9 15.8 3.0	61 60.4
Excitable	12 63.2 14.6 11.9	7 36.8 36.8 6.9	19 18.8
Column total	82 81.2	19 18.8	101 100.0

Raw chi square = 19.70387; 2 degrees of freedom; significance = .0001.
 Number of missing observations = 42.

HO: 6.10

Table G.23 Well liked by adults as perceived by the teacher by
 student's communication pattern as perceived by the
 teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Well Liked by Adults as Perceived by the Teacher		Row Total
Student's Communication Pattern as Perceived by the Teacher	Yes	No	
Quiet	35 94.6 41.7 34.3	2 5.4 11.1 2.0	37 36.3
Normally communicative	42 80.8 50.0 41.2	10 19.2 55.6 9.8	52 51.0
Very talkative	7 53.8 8.3 6.9	6 46.2 33.3 5.9	13 12.7
Column total	84 82.4	18 17.6	102 100.0

Raw chi square = 11.17429; 2 degrees of freedom; significance = .0037.
 Number of missing observations = 41.

HO: 7.2

Table G.24 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher			Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Easily discouraged	48	5	11	64
	75.0	7.8	17.2	58.7
	90.6	11.9	78.6	
	44.0	4.6	10.1	
Reasonably persistent	4	37	3	44
	9.1	84.1	6.8	40.4
	7.5	88.1	21.4	
	3.7	33.9	2.8	
Blindly aggressive	1	0	0	1
	100.0	0	0	0.9
	1.9	0	0	
	0.9	0	0	
Column total	53	42	14	109
	48.6	38.5	12.8	100.0

Raw chi square = 65.91565; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 34.

HO: 7.3

Table G.25 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Over-dependent	10	1	1	12	
	83.3	8.3	8.3	11.1	
	20.0	2.3	7.1		
	9.3	0.9	0.9		
Accepting	34	41	7	82	
	41.5	50.0	8.5	75.9	
	68.0	93.2	50.0		
	31.5	38.0	6.5		
Resistant	6	2	6	14	
	42.9	14.3	42.9	13.0	
	12.0	4.5	42.9		
	5.6	1.9	5.6		
Column total	50	44	14	108	
	46.3	40.7	13.0	100.0	

Raw chi square = 22.31839; 4 degrees of freedom; significance = .0002.
 Number of missing observations = 35.

HO: 7.4

Table G.26 Student's behavior when faced with a difficult task as perceived by the teacher by student's leadership as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Student's Leadership as Perceived by the Teacher					
Generally avoids leadership	43	16	6	65	
	66.2	24.6	9.2	63.1	
	81.1	44.4	42.9		
	41.7	15.5	5.8		
At times he either leads or follows	10	15	7	32	
	31.3	46.9	21.9	31.1	
	18.9	41.7	50.0		
	9.7	14.6	6.8		
Usually seeks to lead	0	5	1	6	
	0	83.3	16.7	5.8	
	0	13.9	7.1		
	0	4.9	1.0		
Column total	53	36	14	103	
	51.5	35.0	13.6	100.0	

Raw chi square = 18.22866; 4 degrees of freedom; significance = .0011.
 Number of missing observations = 40.

HO: 7.5

Table G.27 Student's behavior when faced with a difficult task as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Apathetic	27	2	1	30	
	90.0	6.7	3.3	27.5	
	50.9	4.9	6.7		
	24.8	1.8	0.9		
Emotionally calm	19	37	5	61	
	31.1	60.7	8.2	56.0	
	35.8	90.2	33.3		
	17.4	33.9	4.6		
Excitable	7	2	9	18	
	38.9	11.1	50.0	16.5	
	13.2	4.9	60.0		
	6.4	1.8	8.3		
Column total	53	41	15	109	
	48.6	37.6	13.8	100.0	

Raw chi square = 55.27521; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 34.

HO: 7.6

Table G.28 Student's behavior when faced with a difficult task as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as Perceived by the Teacher				Row Total
	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively		
Shy and bashful	23	10	1		34
	67.6	29.4	2.9		34.0
	50.0	25.6	6.7		
	23.0	10.0	1.0		
Responsive	23	28	9		60
	38.3	46.7	15.0		60.0
	50.0	71.8	60.0		
	23.0	28.0	9.0		
Bold and aggressive	0	1	5		6
	0	16.7	83.3		6.0
	0	2.6	33.3		
	0	1.0	5.0		
Column total	46	39	15		100
	46.0	39.0	15.0		100.0

Raw chi square = 31.43715; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 43.

H0: 7.7

Table G.29 Student's behavior when faced with a difficult task as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Difficult Task as a Perceived by the Teacher				Row Total
	Student's Communication Pattern as Perceived by the Teacher	Withdraws from a Situation	Faces the Task Intelligently	Acts Impulsively	
Quiet		8	24	4	36
		22.2	66.7	11.1	32.7
		15.4	54.5	28.6	
		7.3	21.8	3.6	
Normally communicative		38	16	5	59
		64.4	27.1	8.5	53.6
		73.1	36.4	35.7	
		34.5	14.5	4.5	
Very talkative		6	4	5	15
		40.0	26.7	33.3	13.6
		11.5	9.1	35.7	
		5.5	3.6	4.5	
Column total		52	44	14	110
		47.3	40.0	12.7	100.0

Raw chi square = 24.04147; 4 degrees of freedom; significance = .0001.
Number of missing observations = 33.

HO: 8.1

Table G.30 Student's behavior when faced with a problem as perceived by the teacher by number of failures (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior When Faced With a Problem as Perceived by the Teacher				Row Total
	Easily Discouraged	Reasonably Persistent	Blindly Aggressive		
None	41	48	2		91
	45.1	52.7	2.2		70.5
	56.2	88.9	100.0		
	31.8	37.2	1.6		
One	29	6	0		35
	82.9	17.1	0		27.1
	39.7	11.1	0		
	22.5	4.7	0		
Two	2	0	0		2
	100.0	0	0		1.6
	2.7	0	0		
	1.6	0	0		
Three	1	0	0		1
	100.0	0	0		0.8
	1.4	0	0		
	0.8	0	0		
Column total	73	54	2		129
	56.6	41.9	1.6		100.0

Raw chi square = 17.18188; 6 degrees of freedom; significance = .0086.

Number of missing observations = 14.

HO: 5.2

Table G.31 Student's behavior regarding authority as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Student's Behavior When Faced With a Problem as Perceived by the Teacher	12	42	12	66
	18.2	63.6	18.2	55.9
	85.7	47.2	80.0	
	10.2	35.6	10.2	
Easily discouraged	2	46	2	50
	4.0	92.0	4.0	42.4
	14.3	51.7	13.3	
	1.7	39.0	1.7	
Reasonably persistent	0	1	1	2
	0	50.0	50.0	1.7
	0	1.1	6.7	
	0	0.8	0.8	
Blindly aggressive	14	89	15	118
	11.9	75.4	12.7	100.0

Raw chi square = 14.99894; 4 degrees of freedom; significance = .0047.
 Number of missing observations = 25.

HO: 9.3

Table G.32 Student's behavior regarding authority as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Shy and bashful	7 21.9 58.3 6.4	24 75.0 28.2 21.8	1 3.1 7.7 0.9	32 29.1
Responsive	5 7.0 41.7 4.5	59 83.1 69.4 53.6	7 9.9 53.8 6.4	71 64.5
Bold and aggressive	0 0 0 0	2 28.6 2.4 1.8	5 71.4 38.5 4.5	7 6.4
Column total	12 10.9	85 77.3	13 11.8	110 100.0

Raw chi square = 31.06985; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 33.

HO: 9.4

Table G.33 Student's behavior regarding authority as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior Regarding Authority as Perceived by the Teacher			Row Total
	Over-Dependent	Accepting	Resistant	
Quiet	3	39	2	44
	6.8	88.6	4.5	36.1
	21.4	41.9	13.3	
	2.5	32.0	1.6	
Normally communicative	9	47	4	60
	15.0	78.3	6.7	49.2
	64.3	50.5	26.7	
	7.4	38.5	6.3	
Very talkative	2	7	9	18
	11.1	38.9	50.0	14.8
	14.3	7.5	60.0	
	1.6	5.7	7.4	
Column total	14	93	15	122
	11.5	76.2	12.3	100.0

Raw chi square = 30.20727; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 21.

HO: 10.2

Table G.34 Student's leadership as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Student's Behavior When Faced With a Problem as Perceived by the Teacher	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Easily discouraged		50	16	3	69
		72.5	23.2	4.3	60.0
		71.4	44.4	33.3	
		43.5	13.9	2.6	
Reasonably persistent		19	20	5	44
		43.2	45.5	11.4	38.3
		27.1	55.6	55.6	
		16.5	17.4	4.3	
Blindly aggressive		1	0	1	2
		50.0	0	50.0	1.7
		1.4	0	11.1	
		0.9	0	0.9	
Column total		70	36	9	115
		60.9	31.3	7.8	100.0

Raw chi square = 15.03205; 4 degrees of freedom; significance = .0046.
Number of missing observations = 28.

HO: 10.4

Table G.35 Student's leadership as perceived by the teacher by student's behavior in the classroom as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage		Student's Leadership as Perceived by the Teacher			Row Total
Student's Behavior in the Classroom as Perceived by the Teacher		Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Apathetic		27	4	0	31
		87.1	12.9	0	27.0
		38.6	11.1	0	
		23.5	3.5	0	
Emotionally calm		31	28	5	64
		48.4	43.8	7.8	55.7
		44.3	77.8	55.6	
		27.0	24.3	4.3	
Excitable		12	4	4	20
		60.0	20.0	20.0	17.4
		17.1	11.1	44.4	
		10.4	3.5	3.5	
Column total		70	36	9	115
		60.9	31.3	7.8	100.0

Raw chi square = 18.68053; 4 degrees of freedom; significance = .0009.
 Number of missing observations = 28.

HO: 10.5

Table G.36 Student's leadership as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher				Row Total
	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead		
Student's Relationship With Other Students as Perceived by the Teacher					
Shy and bashful	32	4	0		36
	88.9	11.1	0		34.3
	50.8	11.4	0		
	30.5	3.8	0		
Responsive	28	29	5		62
	45.2	46.8	8.1		59.0
	44.4	82.9	71.4		
	26.7	27.6	4.8		
Bold and aggressive	3	2	2		7
	42.9	28.6	28.6		6.7
	4.8	5.7	28.6		
	2.9	1.9	1.9		
Column total	63	35	7		105
	60.0	33.3	6.7		100.0

Raw chi square = 23.98652; 4 degrees of freedom; significance = .0001.
 Number of missing observations = 38.

HO: 10.6

Table G.37 Student's leadership as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Leadership as Perceived by the Teacher			Row Total
	Generally Avoids Leadership	At Times He Either Leads or Follows	Usually Seeks to Lead	
Quiet	13	19	4	36
	36.1	52.8	11.1	31.0
	18.3	51.4	50.0	
	11.2	16.4	3.4	
Normally communicative	50	15	0	65
	76.9	23.1	0	56.0
	70.4	40.5	0	
	43.1	12.9	0	
Very talkative	8	3	4	15
	53.3	20.0	26.7	12.9
	11.3	8.1	50.0	
	6.9	2.6	3.4	
Column total	71	37	8	116
	61.2	31.9	6.9	100.0

Raw chi square = 27.56228; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 27.

HO: 11.2

Table G.38 Student's behavior in the classroom as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Student's Behavior When Faced With a Problem as Perceived by the Teacher				
	27	27	16	70
	38.6	38.6	22.9	58.3
	87.1	39.7	76.2	
Easily discouraged	22.5	22.5	13.3	
	3	41	4	48
	6.3	85.4	8.3	40.0
Reasonably persistent	9.7	60.3	19.0	
	2.5	34.2	3.3	
	1	0	1	2
Blindly aggressive	50.0	0	50.0	1.7
	3.2	0	4.8	
	0.8	0	0.8	
Column total	31	68	21	120
	25.8	56.7	17.5	100.0

Raw chi square = 28.81414; 4 degrees of freedom; significance = .0000.

Number of missing observations = 23.

HO: 11.3

Table G.39 Student's behavior in the classroom as perceived by the teacher by student's behavior regarding authority as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Over-dependent	8	2	4	14
	57.1	14.3	28.6	11.6
	26.7	2.9	19.0	
	6.6	1.7	3.3	
Accepting	16	67	8	91
	17.6	73.6	8.8	75.2
	53.3	95.7	38.1	
	13.2	55.4	6.6	
Resistant	6	1	9	16
	37.5	6.3	56.3	13.2
	20.0	1.4	42.9	
	5.0	0.8	7.4	
Column total	30	70	21	121
	24.8	57.9	17.4	100.0

Raw chi square = 43.53839; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 22.

HO: 11.4

Table G.40 Student's behavior in the classroom as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Behavior in the Classroom as Perceived by the Teacher			Row Total
	Apathetic	Emotionally Calm	Excitable	
Shy and bashful	11	18	6	35
	31.4	51.4	17.1	31.8
	42.3	28.1	30.0	
	10.0	16.4	5.5	
Responsive	14	45	8	67
	20.9	67.2	11.9	60.9
	53.8	70.3	40.0	
	12.7	40.9	7.3	
Bold and aggressive	1	1	6	8
	12.5	12.5	75.0	7.3
	3.8	1.6	30.0	
	0.9	0.9	5.5	
Column total	26	64	20	110
	23.6	58.2	18.2	100.0

Raw chi square = 21.26553; 4 degrees of freedom; significance = .0003.

Number of missing observations = 33.

HO: 11.5

Table G.41 Student's behavior in the classroom as perceived by the teacher by student's communication pattern as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage		Student's Behavior in the Classroom as Perceived by the Teacher				Row Total
		Apathetic	Emotionally Calm	Excitable		
Quiet		2	35	5	42	
		4.8	83.3	11.9	33.9	
		6.5	48.6	23.8		
		1.6	28.2	4.0		
Normally communicative		27	33	4	64	
		42.2	51.6	6.3	51.6	
		87.1	45.8	19.0		
		21.8	26.6	3.2		
Very talkative		2	4	12	18	
		11.1	22.2	66.7	14.5	
		6.5	5.6	57.1		
		1.6	3.2	9.7		
Column total		31	72	21	124	
		25.0	58.1	16.9	100.0	

Raw chi square = 56.12840; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 19.

HO: 13.2

Table G.42 Student's communication pattern as perceived by the teacher by student's behavior when faced with a problem as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Communication Pattern as Perceived by the Teacher			Row Total
	Quiet	Normally Communicative	Very Talkative	
Student's Behavior When Faced With a Problem as Perceived by the Teacher				
Easily discouraged	16	38	13	67
	23.9	56.7	19.4	54.9
	37.2	61.3	76.5	
	13.1	31.1	10.7	
Reasonably persistent	27	23	3	53
	50.9	43.4	5.7	43.4
	62.8	37.1	17.6	
	22.1	18.9	2.5	
Blindly aggressive	0	1	1	2
	0	50.0	50.0	1.6
	0	1.6	5.9	
	0	0.8	0.8	
Column total	43	62	17	122
	35.2	50.8	13.9	100.0

Raw chi square = 13.80782; 4 degrees of freedom; significance = .0079.
 Number of missing observations = 21.

HO: 13.3

Table G.43 Student's communication pattern as perceived by the teacher by student's relationship with other students as perceived by the teacher (Grades 9-12)

Count Row Percentage Column Percentage Total Percentage	Student's Communicative Pattern as Perceived by the Teacher			Row Total
	Quiet	Normally Communicative	Very Talkative	
Student's Relationship With Other Students as Perceived by the Teacher				
Shy and bashful	2	32	3	37
	5.4	86.5	8.1	32.7
	4.8	56.1	21.4	
	1.8	28.3	2.7	
Responsive	38	25	7	70
	54.3	35.7	10.0	61.9
	90.5	43.9	50.0	
	33.6	22.1	6.2	
Bold and aggressive	2	0	4	6
	33.3	0	66.7	5.3
	4.8	0	28.6	
	1.8	0	3.5	
Column total	42	57	14	113
	37.2	50.4	12.4	100.0

Raw chi square = 46.28864; 4 degrees of freedom; significance = .0000.
 Number of missing observations = 30.

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