Rowan University

Rowan Digital Works

5-31-1995

The examination of academic achievement and self-concept between early and late entrants of first grade pupils

Terri J. Wells
Rowan College of New Jersey

Follow this and additional works at: https://rdw.rowan.edu/etd

Part of the Elementary Education and Teaching Commons

THE EXAMINATION OF ACADEMIC ACHIEVEMENT

AND SELF CONCEPT BETWEEN EARLY AND LATE

ENTRANTS OF FIRST GRADE PUPILS

by

Terri J. Wells

A THESIS

submitted in partial fulfillment

of the requirements for the degree of Master of Arts,

in the Graduate Division of Rowan College of New Jersey

May 1995

Approved by _____

Date Approved _____

ABSTRACT

Terri J. Wells

The Examinination of Academic
Achievement and Self-concept Between
Early and Late Entrants of First Grade Pupils
1995

Dr. Louis Molinari
Elementary Education

The purpose of this study was to determine whether or not students who entered first grade at an earlier chronological age could successfully compete with late-entrance students regarding academics and self-concepts. Research suggests that there may be a link between school success and chronological age for elementary students.

A study was constructed that included 18 first grade students of the same class. The 18 students were classified as being either "Early" or "Late" entrants. Late entrants were those students who were born between October, 1987 and March, 1988. Early entrants were those students who were born between April, 1988 and September, 1988.

In order to investigate the hypotheses, two tests were administered. Scores from the April, 1994 Iowa Test of Basic Skills were compared to Spring, 1995 scores of Early and Late Entrants to measure achievement. Differences in self-concept were compared using the students' Behavior Rating Profile-Second Edition (1990). The degree of popularity among the

18 students was measured by using the Sociogram, "My Three Friends". Using a two-tailed t test, the differences between mean scores were compared. Differences were considered significant at the .05 level of confidence.

When the data was analyzed, it was found that statistically there were no significant differences between Early and Late Entrants in terms of achievement and self-concept; however, trends were noted.

MINI-ABSTRACT

Terri J. Wells

The Examination of Academic
Achievement and Self-concept Between
Early and Late Entrants of First Grade Pupils
1995

Dr. Louis Molinari
Elementary Education

The purpose of this study was to determine whether or not students who entered first grade at an earlier chronological age could successfully compete with late-entrance students regarding academics and self-concepts. At the conclusion of this study trends were noted that age alone is not an adequate predictor of school success.

ACKNOWLEDGEMENTS

There are many persons to thank for their assistance in the completion of this study:

I would like to thank Dr. Louis Molinari, Thesis Advisor, for his professional judgment throughout the completion of this study.

My sincere thanks to Catherine Kelley for her generous contribution of time and concern.

I would like to express a genuine appreciation to my family for giving me the strength and encouragement when I most needed it. A heartfelt thanks to my mother for all that she has done.

TABLE OF CONTENTS

List of Tables

CHAPTER I

THE PROBLEM

Significance of the Study

American education as a whole has been subjected to sharp criticism. The various school curricula have been scrutinized and found deficient. The adequacy of teachers and their training have not fared much better. Our school systems have been compared with foreign systems, most often to our disadvantage. As quoted by Ilg and Ames (1972), "The fact that we were comparing similar grade levels with no concern for the fact that some foreign countries do not allow their children to enter first grade before 7 years of age has not modified the critics' reports. The child in his own individual right, which includes his own rate of growth, has been neglected in these evaluations".

One of the more interesting and controversial issues in early childhood education today is the age at which children become eligible for school. At a time when the public is demanding that schools and teachers be accountable for students' performance, many teachers have suggested that an easy way to raise test scores is to raise age of entrance into first grade. Too many children, some teachers insist, are simply not ready for the rigors of academic training (Davis, Trimble, & Vincent, 1980).

10

Robinson (1984) argues, "All children, bright or otherwise, learn best when they are appropriately challenged. Achieving that optimal match between child and challenge is, however, a challenge of its own. For a bright child within 6 months of ordinary school entry age, one of the easiest, least disruptive, and least expensive options for matching ability and interests is early entry to school".

School entrance ages, whether by legal or by social mandate, generally tend to be comprehensive. In some states, children must enter school as early as age five. In other states, students may enter as early as three or as late as nine or older. European societies differ; Holland, for example, requires school entry at age four, and in France, for 99 percent of the children, the general entry age ranges between two and three (Moore, 1965).

Most states specify a cutoff date for entry into first grade. However, there appears to be no consensus as to the "best" age. According to Robinson & Weimer (1990), geographically speaking, school entry age is matter of little agreement. Schools such as the Bellevue School in Washington, allow children under the age of five to start school if they are able to demonstrate "exceptional promise of success" on readiness tests. Educators have learned that some kids can start school before they are five and still compete successfully (Mattick, 1989). As found in Gould (1976), age is not a factor in determining "readiness" for school, but maturation;

11

the ability to acquire a new skill determined by both what goes on inside the child and what is going on outside of him (environmental stimulation).

Jerome Bruner, discussing early learning in general and not confining himself to reading readiness, states: "The idea of 'readiness' is a mischievous half-truth. It is a half-truth largely because it turns out that one teaches readiness or provides opportunities for its nurture, one does not simply wait for it. Readiness in these terms consists of mastery of those simpler skills that permit one to reach higher skills."

In concurrence with Bruner, Moore (1965) noted readiness for formal school learning depends upon age-linked experience and knowledge contributing to certain cognitive-structural changes that facilitate conceptual learning. Attempts to speed up conceptual learning through specific training have been found ineffective; yet a wide range of ordinary life experiences appears fundamental for optimal cognitive readiness. Moore (1965) suggests children who are older at school entrance generally do better in all learning and adjustment than younger children.

Bigelow (1934) found that children who were under the age of six when entering first grade had a decreased chance for school success. Baer (1959) noted that older entrants scored higher on achievement tests in reading, math, and social studies. Green and Simons (1962) and Hall (1963) had similar findings. Kinard and Reinherz (1986) found that younger children tested lower in cognitive ability than older children at the time of

12

school entrance, but found the cognitive abilities the same in subsequent years. Ilg et al (1978) state that a child does best in school if started and promoted on the basis of developmental rather that chronological age.

Research findings differ as much as school entry dates. Bracey (1987) reports that Purdue researchers were able to locate 21 studies who were admitted to school prior to the normal starting age. Researchers concluded that there were more positive than negative outcomes. Children who had been admitted early fared as well as or better than their older counterparts in grades, teacher ratings, and test scores. In long term studies, students admitted early were found to excel academically, to have strong positive self-concepts, to participate in a wide range of extracurricular activities, to acquire more honors, and to be more likely to gain admission to college (Bracey, 1987). Much research has been done in the area of self concept and its relation to academic achievement. Fink (1962) confirmed the hypothesis that a relationship does exist between of self concept and level of academic achievement. Roth (1959) states, "in terms of their conception of self, individuals have a definite investment to perform as they do. Those who do not achieve, choose not to do so." For the purpose of this study, self concept in relation to chronological age and achievement will be further examined.

13

Statement of the Problem

Do Late-Age Entrants of the Barrington School District have higher degrees of academic achievement on the Iowa Test of Basic Skills and higher self-concepts on the Behavior-Rating Profile, than Early-Age Entrants in the First Grade?

Purpose of the Study

The purpose of this study is to determine whether or not students who entered first grade at an earlier chronological age could successfully compete with late entrance students regarding academics and self-concept. Research suggests that there may be a link between school success and chronological age for elementary students. Students' chronological age and self-concept of Early and Late Entrants will be discussed as measured on standardized as well as norm-referenced tests.

Statement of the Hypotheses

In order to investigate the problem, the following hypotheses were generated:

H1 There will be no significant differences in academic achievement, between early-aged entrants and late-aged entrants, as measured on the Iowa Test of Basic Skills (1986) given in the Spring, 1994, and the Iowa Test of Basic Skills (1986), given at the first grade level.

14

H2   There will be no significant differences in self-concept between those students who are considered early entrants and those considered late entrants, as measured by the students' Behavior Rating Profile (1990).

H3   There will be no significant relationships between the degree of popularity and age levels of first grade pupils as measured on the "My Three Friends" sociogram (1990).

Method of Study

Data will be collected on the subjects' academic achievement and self concept by using the Iowa Test of Basic Skills (1986) and the Behavior Rating Profile (1990). A peer nomination technique to determine the degree of popularity will be utilized.

Definition of Terms

Achievement Tests-   a test that measures the

                                            extent to which a person has

                                            mastery over a certain skill

                                            after instruction has taken

                                            place.

Early Entrants -   those children who were

                                            born between April, 1988,

Late Entrants -

Chronological Age -

Developmental Age -

Developmental Placement -

Readiness Test -

"Ready to Learn" -

and September, 1988.

those children who were

born between October, 1987,

and March, 1988.

age based on the number

of years from birth.

age based on the level of

a child's performance

rather than years from

birth.

school entrance or

placement that is

determined by

developmental rather than

chronological age.

assessment of child's level of

preparedness for a specific

academic or preparedness

for a specific academic or

preacademic program.

the child is prepared to deal

successfully with the first-

16

grade curriculum and social demands of the elementary school classroom.

Self Concept – the individual's assessment of his position on a variety of dimensions that the social environment regards as important.

Screening Test – a test used to identify children who may be in need of special services, as first step in identifying children in need of further diagnosis.

School Readiness - the ability to cope with the demands of the school setting.

School Success - achievement that is attained in school with undue stress or frustration.

17

Limitations of Study

The small number of students in this study could be considered a limitation. The achievement test scores are standardized. The self-concept tests are norm-referenced. An individual may conceal his real attitudes when completing the behavior-form, or may not really know how he feels about an issue. Peer perceptions can change daily, and therefore should be taken into consideration when examining results of the Sociogram.

Organization of the Study

Chapter I includes the significance of the study, the purpose of the study, a statement of the hypotheses, and the method of the study including the instrumentation. It also includes the limitations of the study, a definition of terms, and the organization of the thesis.

Chapter II reviews the lituature pertinent to the study and provides a summary of related lituature.

Chapter III describes in detail the design of the study including the samples used, a description of the instrumentation, the method of study, the method of analyzing the data, and the relationship of the instrument to the null hypotheses.

Chapter IV analyzes the data and presents a summary of the findings.

18

Statistical measures used are presented and data obtained is recorded.

Chapter V reviews the procedures followed in the study. It discusses the results and presents a summary of the problem. Conclusions and implications are drawn as well as recommendations for changes in procedures and areas of further study.

CHAPTER II

INTRODUCTION

The purpose of this study is to determine whether or not students who entered first grade at an earlier chronological age could successfully compete with late entrance students regarding academics and self-concept. In order to investigate the problem, a thorough review of the related literature was completed.

REVIEW OF THE LITERATURE

A review and investigation of the literature revealed there is a substantial amount of information available on the topics concerning entrance age and school readiness, as well as self-concept in relation to achievement. The major factors influencing learning that ultimately have an impact on school "success" in early childhood will be discussed. For this literature review, doctoral studies, books, and articles in scholarly journals will be examined on topics concerning the following: The relationship between school entry age and academic achievement; Maturation levels in relation to chronological age; The use of developmental versus chronological age as a guideline for school placement; and The relationship between school achievement and self concept.

School personnel tend to hold strong convictions in favor of a firmly

20

defined age-grading system. Yet, geographically speaking, school entry age is matter of little agreement. Compared to other nations, the United States registers children into public schools ranging from July 1 (Missouri) to January 1 (Delaware & Connecticut), as cited by Robinson and Weimer (1990). During the last three decades, typical cutoff dates have been moved from the beginning of the calendar year to the beginning of the school year.

Many teachers have suggested an easy way to raise test scores is to raise age of entrance into first grade. However, Benjamin Bloom's findings (1964) had a big influence on the crusade for early education. Bloom states that in terms of intelligence measured at age 17, approximately 50% of the development takes place between conception and age 4, about 30% between ages 8 and 17.

Moore and Moore (1973) claim that Bloom's data are misleading; they state that the rapid development of a young child's intellect requiring stimulation of a school-type program is false. Intelligence in the young child is more of a "potential ability to reason", and that to force this potential is much like forcing the bud of a flower to open before it is ready. The Moores cited a study by Dr. Margaret Gott who concluded from her research that two-thirds of the significant differences among children in the higher IQ ranges were in favor of the older children.

Bigelow (1934) was one of the first to suggest that children entering

21

school before they reach the age of six have little chance of success in school. Baer's (1958) research seemed to support this conclusion. Using match pairs of subjects who were at the same grade level, Baer matched two groups of students on the variables of sex and mental age. He found that the older entrants scored significantly higher on achievement tests in reading, arithmetic, and social studies. Green and Simmons also found that older entrants scored significantly higher on achievement tests; however, they cautioned that older entrants should know more at the beginning of their school training and that this fact explained the differences in test scores. He concluded that age of entrance into first grade had a significant influence on achievement-test scores. His review indicated that mental age and adjustment also had a significant influence. Davis, Trimble, and Vincent (1980) found that students who entered first grade at age six scored significantly higher on achievement tests than students who entered first grade at age 5. These findings were repeated at the fourth grade level. At the eighth grade level it was found that first grade entry age was significantly related only to reading achievement.

Entering school early usually results in less than optimum achievement (King, 1955), but children who enter later are more likely to achieve at a higher level (Moore and Moore, 1979). Similarly, Ilika (1969) found that even seven or eight additional months of age at the time of entrance to the first grade generally enabled children to achieve faster.

22

Bookbinder (1967) noted increased difficulty among slightly younger children in coping with ordinary classes at the age of nine or ten. The conversation and logical thinking skills should be firmly established at this age, and is so in older entrants; the younger entrants in the same grade who have not yet acquired these skills tend to lag behind.

Pain (1981) found that at the beginning of first grade younger students appeared to be significantly less ready than older students, but by spring of second grade, the differences were very small. No significant differences were found at the sixth grade level. Some differences reappeared in the eighth grade, but disappeared in the tenth grade.

Kalk et al (1982) found that the oldest students achieved at significantly higher levels at age nine. This difference decreases, but remains significant at age thirteen and disappears at age seventeen.

Foote (1991) examined the degree of correlation between the age of a child on entering kindergarten and the child's academic achievement. A review of the literature provides evidence that premature learning may actually create a block to later learning. The Developmental Test of Visual-Motor Integration was administered to two samples that were randomly selected from 81 kindergartners. Ages ranged from 5 years, 6 months, to 6 years; and from 4 years, 11 months, to 5 year 5 months. Findings indicated that the older group obtained significantly higher scores. There was a positive correlation between entrance age and academic achievement in

23

kindergarten.

Carrington (1982) found that age of entrance had a significant effect on the performance of first grade students in language and math. However, by the third grade, she found that age of entrance provided neither an advantage or a disadvantage. She further found that early entrants made excellent progress in school. Carrington concluded that, based on her study, the influence of chronological age on school performance is minimal.

Montz (1985) compared the academic achievement as measured by the Iowa Test of Basic Skills of 20 early and 20 late kindergarten entrants.She found that the later entrants scored significantly higher than the early entrants.

Since many studies have found that the youngest children in the primary grades are most likely to have academic and adjustment difficulties, the Bellevue schools in Washington state decided to set high admission standards for the underage children. To be admitted, the child is expected to demonstrate performance in the assessment measures at about the level of a six year-old. From 1976 to 1986, the Bellevue School District admitted 145 underage children to kindergarten (Mattick, 1989) and followed their progress through school. Teachers rated the early entrants in comparison with their classmates on nine characteristics: language and reading, math, writing, following directions, accepting and cooperating with other children, large motor skills, feelings about school, and responsibility

24

and independence. The ratings of underage children were similar to those of older classmates. Teachers considered the younger children to be more capable in language and reading readiness: however, they gave early entrants lower ratings in copying, drawing, writing, following directions and large motor skills. The younger children demonstrated less independence and responsibility. Out of 53 children admitted in one five-year period, six were withdrawn from kindergarten and three were retained in kindergarten or first grade. In the primary grades, several of the students had negative teacher comments in their records regarding their social-emotional development, attention span, fine motor skills and following directions skills; however, such comments seldom appeared in the students' records in later grades. The same students were evaluated in adolescent years; specific findings suggest the Early Entrants' participated in many extracurricular activities, including music, sports, theater and clubs. Seven out of ten parents rated their child's academic and social progress as either good or excellent. One parent out of ten and two students out of ten said that if they could do it over again, they would not choose early admission.

A study of 278 pupils in the Hebron, Nebraska, Elementary School (Uphoff, 1985) found that 23 percent of the population had birthdays between June 1 and October 15, the cutoff date for that state. Another 9 percent were born in the same time period but had been held back for one

25

year before starting school. The youngest group (summer children) made up 75 percent of the school's failure population, while none of the held-back summer children had failed a grade. This study also found out that although the Summer Children had a higher average IQ (girls, 115; boys, 107) than the held-back (girls 101; boys 100), the latter group achieved the same (boys) or higher (girls) average cumulative percentile scores on the Iowa Test of Basic Skills. Thus, the less bright but older and developmentally more mature pupils were able to do more with ability they had than were the brighter, younger students (Uphoff and Gilmore, 1986).

Shank (1990) discusses the need for change when determining school admission: "Admission to kindergarten should be based on readiness assessment rather than chronological age". Shank reports that children who are developmentally young face numerous problems: (a) lack of success experiences, (b) learned helplessness, and (c) being mislabeled mildly handicapped. Glasser (1969) specified two needs of children: love and self-worth. Schools, he stated, are more directly concerned with the second need, but "in learning to think and solve problems, essential to attaining a feeling of self-worth, a child may gain enough self-confidence to learn to give and receive love". Therefore, all children should be provided success experiences in their primary years to improve their chances to succeed later in life. "Schools that demand too much too soon," according to

26

Kantrowitz and Wingert (1989), "are setting kids off on the road to failure".

Zill and Wolpow (1991) state that perhaps even more important than mastery of simple facts and concepts is attainment of sufficient social and emotional maturity for coping with the challenges that grade school poses. The child must "be able to be separated from his or her parents for most of the day without becoming upset; to focus attention on what the teacher is saying and doing without becoming distracted; to follow directions; to sit still for more than a few minutes; and to get along with other children". Kagan (1990) states that maturational readiness accepts the basic principle of school readiness: that it is correct to expect children to achieve a specified standard prior to school entry. But it also acknowledges the existence of children's individual time clocks. Kagan suggests that because all children do not develop at the same pace, they will not all attain the school readiness standard at the same time. Rather than place children in school environments that are too advanced for them or attempt to reform schools to accommodate children's individual differences, many maturationists believe in keeping children out of formal schooling until they are (maturationally or developmentally) ready. Such readiness is not determined by chronological age but is assessed through

the use of tests. Ogletree (1988) claims chronological age is not always a reliable index of school readiness. He states, "forced learning can cause

frustration, anxiety, alienation, and loss of interest in learning".

In many cases early entry may result in maladjustment in school, and even may have an adverse effect on adult life. Mawhinney (1964) as cited by Uphoff and Gilmore (1986), reported on why the Grosse Point, Michigan schools abandoned an early entrance program for very bright children as a result of data obtained from their 14-year longitudinal study. The results concluded that approximately one in four of the very bright early school entrants was either below average in school or had to repeat a grade. Uphoff and Gilmore (1985) suggest changing the cutoff dates for school entrance and using better developmental assessment to determine children's readiness to enter school.

Jackson, Famiglietti, and Robinson (1981) state children who have qualified for early entrance to first grade by demonstrating advanced intellectual abilities and meeting other "readiness" criteria perform very well academically. Robinson and Weimer (1990) state: "All children, bright or otherwise, learn best when they are appropriately challenged. Achieving that optimal match between child and challenge is, however, a challenge of its own. For a bright child within 6 months of ordinary school entry age, one of the easiest, least disruptive, and least expensive options for matching ability and interests is early entry to school".

Breznitz and Teltsch (1989), as cited by Bracey (1989), studied differences in achievement in students of different ages at the end of first

grade. They later followed up the same children at the end of fourth grade. They found that the older students scored better on tests of reading comprehension and arithmetic and that they suffered less anxiety than their younger classmates did. Upper-middle-class parents tend to hold their children back so that they will not be the youngest in their class, while lower-income parents often send their children to school as early as possible because they need child care. The authors conclude that the youngest children suffer a double dose of problems in classrooms: they do not perform as well as their older classmates, and they feel anxious. Frick (1986) claims that "redshirting" in kindergarten can be a positive intervention if (1) the concept is used to enhance ability rather than underline failure and (2) the time periods children spend in the primary grades are made more flexible to accommodate children's different rates of mastering skills.

For years, wise teachers have sensed the positive relationship between a students' concept of himself and his performance in school (Purkey, 1970). Brookover (1967) concluded from his extensive research in self-image and achievement, that the assumption that human ability is the most important factor in achievement is questionable, and that the student's attitude limits the level of achievement in school. Learners who have confidence in their ability to achieve tend to do better in school than those who lack confidence, likewise, learners who experience success in

29

school tend to have more confidence in their ability to succeed than those who have not had success (Beane, Lipka, 1986). Together with the home and social groups, the school classroom contributes largely to the shaping of a child's self-concept (Hamachek, 1971). The perception of self that individuals have include their views of themselves as compared to others (self-perception); their views of how others see them (self-other perception); and their views of how they wish they could be (self-ideal). (Quandt, Selznick, 1984).

The best evidence now suggests that the relationship between self-concept and scholastic performance is continuous, and that each directly influences the other (Purkey, 1970). Further research was done by Fink (1962). His subjects were selected from the freshman class of a rural high school located in the Central Valley of California. Academic achievement was determined by grade point average, and the self-concept was measured by instruments generally used by school psychologists in clinical situations. The results of the study confirmed the hypothesis that a relationship does exist between adequacy of self-concept and level of academic achievement.

Rogers, Smith, and Coleman (1978) suggest that the self-concept/academic achievement relationship can best be understood within the context of the person's immediate social environment. The importance of academic achievement for self-concept lies not in the absolute level of

30

achievement, but in the child's perception of how his/her level of achievement compares with the achievement of those in his/her social comparison group, that is, other classmates.

There is no question that there is a persistent relationship between the student's self-esteem and academic achievement. However, a great deal of caution is needed before one assumes that either the student's self-esteem determines scholastic performance or that scholastic performance shapes the student's self-esteem. It may be that the relationship between the two is caused by some factor yet to be determined (Purkey, 1970). The best evidence now suggests that it is a two way street, that there is a continuous interaction between the self and the academic achievement, and that each directly influences the other. This relationship gives us reason to assume that enhancing a student's self-concept, especially academic self-concept, is a vital influence in improving academic performance.

CHAPTER III

DESIGN OF THE STUDY

The Iowa Test of Basic Skills (ITBS) was administered to 18 first grade students at the Avon Elementary School in Barrington, New Jersey, between February 22, and March 1, 1995. Scores from the April, 1994 Iowa Test of Basic Skills were compared to Spring, 1995 scores of early and late entrants. For purposes of this study, late entrants were those students who were born between October, 1987 and March, 1988. Early entrants were those students who were born between April, 1988 and September, 1988. Differences in self-concept between early and late entrants were compared using the students' Behavior Rating Profile-Second Edition (1990) scores. The degree of popularity among the 18 students was measured by using the Sociogram, "My Three Friends".

Description of the Population

The subjects tested in this study were 18 first grade students enrolled as of September 1994, at the Avon Elementary School in Barrington, New Jersey. Barrington is a middle socioeconomic area that is 2.2 square miles with two schools, Avon and Woodland. The later being the middle school with approximately 346 students. Avon has approximately

240 students, totaling 586 students attending school in the district. Barrington's entrance-age procedures are as follows: A child must be five years of age on or before October 1 to be admitted to kindergarten in September and six years of age on or before October 1 to be admitted to first grade in September. Of the 18 regular education students to be tested, 1 was enrolled in the Chapter I Basic Skills program for Reading. To be eligible for the Basic Skills Program in the Barrington School District for first grade, a student must have scored below the 55 percent-tile on the ITBS' Total Reading.

Description of Instruments

Iowa Test of Basic Skills

The Iowa Tests of Basic Skills Batteries provide for comprehensive measurement of growth in the fundamental skills: listening, word analysis, vocabulary, reading, use of language, and mathematics. Some of the specific purposes which the Iowa Tests of Basic Skills were designed to serve are as follows: to indicate the extent to which individual pupils have the specific readiness skills and abilities needed to begin instruction or to proceed to the next step in a planned instructional sequence; to determine the developmental level of each pupil in order to adapt materials and instructional procedures more precisely to individual needs and abilities; to diagnose specific qualitative strengths and weaknesses in a pupil's educational development; and to diagnose strengths and weaknesses in

33

group performance (class, building, or system). The two levels (5 and 6) of the Early Primary Battery were designed to measure specific developmental maturity in the following areas: Listening: attention span, following directions, understanding sequence; Word Analysis: letter recognition, letter-sound correspondence; Vocabulary: meaning of words, concept development; Language: use of prepositions, verb tense, singular-plural, etc; Mathematics: numeral recognition, counting, measurement, etc. In addition, Level 6 contains five Reading subtests that measure decoding and comprehension skills developed in preprimer and primer levels of instruction. The tests are essentially "power" tests. They are untimed, and there is no emphasis on speed. Instructions are to "allow all but the slowest pupils to finish". All of the tests except reading are administered orally.

For purposes of this study, hand-scoring was used. The hand-scorable edition is identical to the machine-scorable version except that it does not have the special printing necessary for machine scoring. After scoring was completed, raw scores were tabulated by counting the number of correct answers. The total raw scores for Tests R-1, R-2, R-3, R-4 and R-5 was found by combining the number of correct. The conversion table was used to find the grade-equivalent score for each test. The Complete Composite score was founded by adding the grade-equivalents for the Listening, Word Analysis, Vocabulary, Reading, Language, and Mathematics

34

tests and dividing by six. After all grade-equivalents were recorded, percentile ranks and stanines were obtained by using the appropriate conversion tables.

BRP-2

The Behavior Rating Profile-Second Edition (BRP-2) was the instrument used for the second and third hypotheses. The BRP-2 is a battery of six instruments designed to evaluate students' behaviors at home, in school, and in interpersonal relationships. Five of the instruments are rating scales: the Student Rating Scales: Home, School, and Peer; the Teacher Rating Scale; and the Parent Rating Scale. The sixth instrument is a Sociogram. For purposes of this study, the Student Rating Scale, the Teacher Rating Scale, and the Sociogram were used.

Three self-rating scales are included in the BRP-2 Student Rating Scale: Home, School and Peer. Each scale contains 20 items, with all three scales combined into a single 60-item instrument printed in the Student Rating Scales Response Booklet. Students are asked to describe their own behavior by responding "True" or "False" to each item. Unlike the other instruments, the Sociogram is not a rating scale or checklist. It is a peer nomination technique that has been included in order to incorporate peers' perceptions of the target student into the BRP-2 profile. Pairs of stimulus questions were presented such as "Which of the students in your class would you consider your best friend?" and "Which of the students in your

class would you least like to have as your friend?" Each student nominates three classmates in response to the questions.

The BRP-2 scales were found to be internally consistent to all of the ages studied and was found to be a valid measure of various perceptions of children's behavior at home, at school, and in interpersonal relationships. Experts randomly drew 270 examples of the Parent Rating Scale, 530 of the Teacher Rating Scale, and 700 of the Student Rating Scales from the normative group. The protocols were analyzed within five different grade intervals: grades 2-3, grades 4 and 5, grades 6 and 7, grades 8 and 9, and grades 10-12. All but three of 25 coefficients meet or exceed the .80 criterion; eight of them are in the .90s.

The BRP-2 is intended to provide valuable behavioral information that can be incorporated with other data into a comprehensive socioemotional appraisal. It was built to avoid the weaknesses and difficulties associated with most measures of children's behavior. In particular, (a) it is psychometrically sound, (b) it gathers data from several settings and several respondents, and (c) its ecological constructs are important in the diagnosis of emotional disturbance and behavioral disorders in and out of school. Because of its sound construction and its strong technical characteristics, the BRP-2 can be used with confidence as a tool (a) to help identify students who are believed to have emotional, behavioral, or personal and social adjustment problems; (b) to verify

36

referrals; (c) to document the degree of behavior deviance perceived by students themselves and also by their parents, teachers, and peers; (d) to formulate hypotheses that will guide further evaluation; (e) to help plan and evaluate relevant intervention programs; (f) to target goals for change and intervention; and (g) to measure perceptions of behavior in research projects.

Computing Raw Scores for the Student Rating Scales: Home are followed by circles, True and False. To calculate the raw score for the Students Rating Scales: Home, the examiner counts the number of False responses marked in circles. The items on the Student Rating Scales: School are marked by squares, True and False. The raw score is the number of False responses. Peer are followed by diamonds, True and False. The raw score for the Student Rating Scales: Peer is a tally of the number of False responses marked in diamonds.

Computing Raw Scores for the Teacher Rating Scale: Tally the responses marked in Section V of the response booklet. Add the marks in each of the four response categories (i.e., Very Much Like the Student, Like the Student, Not Much Like the Student, and Not At All Like the Student). Multiply the number of "Like the Student" responses by 1 and write the product in the appropriate blank. The total number of "Not Much Like the Student" responses is multiplied by 2 and recorded in the appropriate position. The total number of "Not At All Like the Student" responses is

multiplied by 3 and the product recorded in the designated place. The raw score for the Teacher Rating Scale is the sum of these products.

Computing Raw Scores for the Sociogram: Six steps were followed to determine a student's raw score on the Sociogram. Prepare an alphabetical list of all of the students in the target class. Add up the number of acceptances and rejections for each student. Subtract the rejections from the acceptances for each student to obtain the difference score. List the students in order of the magnitude of their difference scores, beginning with the largest positive difference score and ending with the largest negative difference score. Assign ranks to the difference score. The examiner will note (a) the rank of the target student and (b) the total number of students in the class.

Converting Raw Scores to Percentile Ranks and Standard Scores: Raw scores from the BRP-2 instruments can be converted to percentile ranks and to derived standard scores with a mean of 10 and a standard deviation of 3. When the raw score for a particular BRP-2 scales has been determined, the examiner converts it to a percentile rank or standard score by means of the appropriate tables.

Relationship of the Instruments

to the Null Hypotheses

H1   stated that there will be no significant differences in academic achievement, between early-aged entrants and late-age entrants, as measured on the Iowa Test of Basic Skills given in the Spring, 1994, and the Iowa Test of Basic Skills, given at the first grade level.

The instrument used for the first hypothesis was the Iowa Test of Basic Skills. The ITBS provide for comprehensive measurement of growth in the fundamental skills: listening, word analysis, vocabulary, use of language, and mathematics. Level 6 has an additional five-part test in reading. The results are useful in determining readiness for learning and for diagnosing strengths and weaknesses in skills performance that may be used as a partial basis for making instructional decisions. The Early Primary Battery is part of a continuous assessment program for Grades K-9. Levels are numbered to correspond roughly to chronological age. Each pupil takes the one level judged to be most suitable for his/her level of development. The Early Primary Battery consists of Levels 5 and 6. There are both hand-scorable and machine-scorable editions for each level. Level 5 booklets are 16 pages; Level 6 booklets are 24 pages. The hand-scorable edition is identical to the machine-scorable edition, except that it does not have the special printing necessary for machine scoring.

Reliabilities vary from test to test and grade to grade. Internal consistency reliability coefficients range from .71 to .92 for the six individual test scores. Composite reliability is .93 for Kindergarten and .94 for Grade 1.

H2   stated there will be no significant differences in self-concept between those students who are considered early entrants and those considered late entrants, as measured by the students' Behavior Rating Profile.

The instrument for the second hypothesis was the Behavior Rating Profile, Second Edition (BRP-2) by Linda Brown and Donald D. Hammill. The BRP-2 was designed to measure children's behavior in a highly standardized, norm-referenced, reliable, and experimentally validated manner (Brown & Hammill, 1990). It is a battery of six instruments designed to evaluate students' behaviors at home, in school, and in interpersonal relationships. Five of the instruments are rating scales: the Student Rating Scales: Home, School, and Peer; the Teacher Rating Scale; and the Parent Rating Scale. The sixth instrument is a Sociogram. In relation to the BRP-2, the term "self-concept" refers to the individual's assessment of his position on a variety of dimensions that the social environment regards as important. Because of its "sound construction" and its "strong technical characteristics", the BRP-2 can be used with confidence as a tool (a) to help identify students who are believed to have emotional, behavioral, or personal and social adjustment problems; (b) to verify

referrals; (c) to document the degree of behavior deviance perceived by students themselves and also by their parents, teachers, and peers; (d) to formulate hypotheses that will guide further evaluations; (e) to help plan and evaluate relevant intervention programs; (f) to target goals for change and intervention; (g) to measure perceptions of behavior in research projects.

H3   stated that there will be no significant relationships between the degree of popularity and age levels of first grade pupils as measured on the "My Three Friends" Sociogram (1990).

The instrument for H3 was the Behavior Rating Profile-Second Edition Sociogram. The Sociogram is based on a peer nominating technique which has been adapted to provide for classmates' evaluations of a referred student. A pair of stimulus questions were asked; each student responded by nominating three classmates in response to each question. The Sociogram is normed on all of the members of the target student's class.

<u>Procedure</u>

Permission to conduct the research project was obtained from the building principal on October 17, 1994. After test materials were received, a letter describing the purpose of the study was sent home to the parents of each participant. (Appendix G). There were no objections from the parents. Testing of students took place between December,1994 and

41

March, 1995. All students were willing participants in the study and received holiday stickers as a reward for taking the test.

Iowa Test of Basic Skills scores from April, 1994 were obtained from the Basic Skills' office. The Kindergarten Iowa Tests of Basic Skills (Level 5) were dictated to the class. The ranked list by grade equivalent in each subtest included Listening, Word Analysis, Vocabulary, Language Total, Mathematics Total, and Basic Composite scores. The Spring, 1995, Iowa Test of Basic Skills (Level 6) included Listening, Word Analysis, Vocabulary, Language, Reading, Mathematics, and Complete Composite scores.

Methods of Analyzing Data

The Spring composite scores taken at the Kindergarten and First Grade levels of the Iowa Test of Basic Skills were used to determine if there were any significant differences between the mean scores of Early and Late Entrants. For this study, differences were considered significant at the .05 level.

Scores from the students' Behavior-Rating Profile were used to determine whether there were any significant differences between self-concept between Early and Late Entrants. A sociogram was used to determine if age levels correspond to the degree of popularity. All differences were considered significant at the .05 level of confidence.

42

The mean scores of both groups, Early and Late, was determined. The Standard Deviation was calculated for each group, as were the Degrees of Freedom. These numbers were then computed and translated into a t-ratio. The t-ratios were compared to see if the null hypothesis would be rejected or accepted. A two-tailed t test value was used in each comparison.

CHAPTER IV

ANALYSIS OF DATA

Summary

The purpose of this study was to determine whether or not students who entered first grade at an earlier chronological age could successfully compete with late-entrance students regarding academics and self-concepts. The sample for this study was restricted to 18 first grade pupils in the same class. The class was divided into two groups. Late Entrants were those students who were born between October, 1987 and March, 1988. Early Entrants were those students born between April, 1988 and September, 1988. All students were enrolled at Avon Elementary School in Barrington, New Jersey during the 1994-1995 school year.

Statistical analyses were computed of the achievement between early and late entrants of first grade students using the Iowa Test of Basic Skills. The growth and loss of achievement of early and late entrants using the Kindergarten composite NCE and First Grade composite NCE scores of the ITBS were computed. Self-concept was measured between Early and Late Entrants using the BRP-2 test, and was brokened down into three categories, Home, School, and Peer. The degree of popularity between Early and Late Entrants of first grade students was measured using a Sociogram. Using "PC Stat" software, the differences were analyzed using a two-tailed

t-test. Differences were considered significant at the .05 level of confidence.

Presentation and Statistical Analysis of the Data
Related to H1

The subjects in this study were divided among two groups based on their chronological age. Late Entrants were those students who were born between October, 1987 and March, 1988. Early Entrants were those students born between April, 1988 and September, 1988. The Iowa Test of Basic Skills Composite scores were used to measure academic achievement at the Kindergarten and First Grade levels. The differences in composite scores were compared using a two-tailed t-test.

Table 1 shows the results of the academic achievement of students determined by using the composite scores of the Iowa Test of Basic Skills. All subjects at the first grade level were tested using Form G, Level 6. A two-tailed t-test was used to compare the mean composite scores of the Early and Late Entrants. The mean composite score the Early Entrants' was 76.22 with a standard deviation of 14.05. The mean score of the Late Entrants' was 80.11 and a standard deviation of 11.36. The analysis of the ITBS between Early and Late Entrants show a T-ratio of -0.574. This T-ratio fell within the range of 2.306 to -2.306, therefore, based on this data,

Table 1

STATISTICAL ANALYSIS OF THE ACHIEVEMENT

BETWEEN EARLY AND LATE ENTRANTS OF FIRST GRADE STUDENTS

USING THE IOWA TEST OF BASIC SKILLS, LEVEL 6, FORM G

Early Entrants

Student Number	Li	Wa	V	R	L	M	Composite GE	Stanine
1	68	51	70	86	90	96	81	7
2	76	74	30	91	90	76	78	7
3	97	65	35	91	69	84	84	7
4	84	85	70	91	48	84	81	7
5	58	51	77	97	90	99	87	7
6	32	65	82	91	24	68	66	9
7	58	12	46	77	60	76	56	5
8	76	47	3	73	69	68	56	5
9	97	93	82	94	91	93	97	9

Late Entrants

Student Number	Li	Wa	V	R	L	M	Composite GE	Stanine
10	84	74	89	80	60	89	81	7
11	84	56	62	82	51	93	74	6
12	95	65	77	84	94	96	89	8
13	76	85	70	88	91	89	89	8
14	76	47	26	77	48	68	56	5
15	95	51	94	91	94	96	93	8
16	97	51	51	69	91	93	87	7
17	52	30	35	97	69	89	74	6
18	76	74	30	91	90	76	78	7

S.D.	14.05			11.36				
Mean	76.22			80.11				
D.F.	8			8				
T-ratio	-0.574							

the H1 was accepted.

Table 2

STATISTICAL ANALYSIS OF THE GROWTH/LOSS OF ACHIEVEMENT

OF EARLY AND LATE ENTRANTS USING THE KINDERGARTEN-

COMPOSITE NCE AND FIRST GRADE-COMPOSITE NCE SCORES

OF THE IOWA TEST OF BASIC SKILLS, LEVEL 5-6, FORM G

Student Number	K-Composite NCE	1 Gr-Composite NCE	Growth/Loss
Early Entrants			
1	75	81	+6
2	75	78	+3
3	57	84	+27
4	43	81	+38
5	54	87	+33
6	48	66	+18
7	54	56	+2
8	60	56	-4
9	79	97	+18
Degree of Improvement	545	686	+141
Late Entrants			
10	70	81	+11
11	70	74	+4
12	70	89	+19
13	80	89	+9
14	40	56	+16
15	87	93	+6
16	75	87	+12
17	60	74	+14
18	75	78	+3
Degree of Improvement	627	721	+94

A further analysis was made comparing the mean composite NCE scores of the Early and Late Entrants to determine the growth/loss of achievement between Kindergarten and First Grade. Table 2 indicated the Early Entrants improved 141 points in an overall growth between

Table 3

STATISTICAL ANALYSIS OF SELF-CONCEPT BETWEEN

EARLY AND LATE ENTRANTS OF FIRST GRADE STUDENTS

USING THE BEHAVIOR-RATING PROFILE TO

DETERMINE HOME, SCHOOL, AND PEER CONCEPTS

EARLY ENTRANTS

Student Number	Home	School	Peer
1	16	4	4
2	50	25	63
3	84	75	91
4	16	9	63
5	96	91	98
6	84	75	84
7	63	63	50
8	9	16	16
9	96	63	75
S.D.	35.80	33.08	32.39
Mean	57.11	46.78	60.44
D.F.	8	8	8

LATE ENTRANTS

Student Number	Home	School	Peer
10	9	25	37
11	25	16	37
12	16	91	84
13	15	91	84
14	1	16	37
15	50	75	50
16	91	91	25
17	16	16	75
18	50	25	63
S.D.	28.38	36.03	22.48
Mean	30.33	49.56	54.67
D.F.	8	8	8
T-ratio	2.076	-0.191	0.447

Table 4

STATISTICAL ANALYSIS OF TOTAL SELF-CONCEPT SCORES

FOR EARLY AND LATE ENTRANTS OF FIRST GRADE STUDENTS

USING THE BEHAVIOR-RATING PROFILE

Early Entrants

Student Number	Total Concept Score
1	24
2	138
3	250
4	88
5	285
6	243
7	176
8	41
9	234

Mean: 164.33
S.D.: 96.503

Late Entrants

Student Number	Total Concept Score
10	71
11	78
12	191
13	190
14	54
15	175
16	207
17	107
18	138

Mean: 134.56
S.D.: 58.78

T ratio: 0.871

Kindergarten and First Grade. The Late Entrants improved only 94 points in an overall growth, even though, they scored higher than the Early Entrants on both the Kindergarten and First Grade achievement tests.

49

Another analysis was made to compare the self-concept between Early and Late Entrants in the categories of Home, School, and Peer. The Early Entrants' mean of the Home category was 57.11 , where as the Late Entrants' mean was 30.33, establishing a T-ratio of 2.076. This T-ratio falls within the acceptable range of 2.306 to -2.306. In the School category, Early Entrants had a mean of 46.78 and the Late Entrants had a mean of 49.56, establishing a T-ratio of -0.191. In the Peer category, the mean score for the Early Entrants was 60.44, and for the Late Entrants, 54.67, creating a T-ratio of 0.447.

Table 4 is a continuation of Table 3, analyzing the total self-concept scores for Early and Late Entrants of First Grade students. Early Entrants' total mean score was 164.33, with a standard deviation of 96.503. Late Entrants' total mean score was 134.56, with a standard deviation of 58.78. The established T-ratio of 0.871 fell within the acceptable range of 2.306 to -2.306, therefore, H2 was accepted.

Table 5

STATISTICAL ANALYSIS OF THE DEGREE OF POPULARITY

BETWEEN EARLY AND LATE ENTRANTS OF FIRST GRADE STUDENTS

USING THE BEHAVIOR-RATING PROFILE SOCIOGRAM,DETERMINING

THE CLASS RANK OF POPULARITY OF STUDENTS

Student Number	Acceptances	Rejections	Differences	Rank
		Early Entrants		
2	8	0	+8	1
6	5	2	+3	3
5	2	1	+1	5.5
8	4	3	+1	5.5
9	4	6	-2	10
1	3	5	-2	10
3	4	6	-2	10
4	2	5	-3	13.5
7	0	6	-6	17
Total:	32	34		
Mean:	3.56	3.78		
S.D.	2.24	2.33		
		Late Entrants		
15	7	2	+5	2
11	4	2	+2	4.5
16	4	2	+2	4.5
17	2	4	-2	10
14	2	4	-2	10
13	2	5	-3	13.5
12	2	6	-4	15.5
10	1	5	-4	15.5
18	0	7	-7	18
Total:	24	37		
Mean:	2.67	4.11		
S.D.	2.06	1.83		
T-Ratio:	2.100	-0.894		

Table 5 is a statistical analysis stating the degree of popularity

51

rank of individual students. Each student's class rank in popularity was determined by tallying their differences of Acceptances and Rejections, the most popular ranking 1 and the least popular 18.

The mean for the total Acceptances of Early Entrants was 3.56 and for Late Entrants, 2.67. The T-ratio for Acceptances was 2.100. The mean of Rejections for Early Entrants was 3.78 and 4.11 for Late Entrants, establishing a T-ratio of -0.894. Both T-ratios for Acceptances and Rejections fell within the acceptable range of 2.306 to -2.306, therefore, H3 was accepted.

Hypotheses: Acceptance or Rejection

The first hypothesis for this study stated there would no significant differences in academic achievement, between early-aged entrants and late-age entrants, as measured on the Iowa Test of Basic Skills given in the Spring, 1994, and the Iowa Test of Basic Skills, given at the first grade level in the Spring, 1995. According to the statistical analysis done on the mean composite NCE scores, the compared groups showed no significant differences in academic achievement. Based on this data, the hypothesis was accepted.

The second hypothesis for this study stated there would be no significant differences in self-concept between those students who are

52

considered early entrants and those considered late entrants, as measured by the students' Behavior Rating Profile. According to the statistical analysis done on the mean scores of the Behavior-Rating Profile, the compared groups showed no significant differences in self-concept. Based on this data, the hypothesis was accepted.

The third hypothesis for this study stated that there would be no significant relationships between the degree of popularity and age levels of first grade pupils as measured on a Sociogram. According to the statistical analysis done on the mean scores of the Acceptances and Rejections of the Sociogram, the compared groups showed no significant differences in popularity. Based on this data, the hypothesis was accepted.

Analysis and Trends

Although all the hypotheses in this study have been statistically accepted, some trends have been noted which may effect future studies. It should be noted that in this study the Late Entrants scored higher on the Iowa Test of Basic Skills, both at the Kindergarten and First Grade levels. However, the Early Entrants had an overall growth of +141 from Kindergarten to First Grade, where as the Late Entrants had a growth of +94. Early Entrants had higher self-concept in both the Home and Peer Categories, but a lower mean score in the school category, showing that

Late Entrants have a higher self-image in school.

It is demonstrated in this study that children entering school at an earlier age compete successfully with students who enter at a later age in the areas of academic achievement and self-concept. This study indicates that age alone is not an adequate predictor of school success.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Summary of the Problem and Hypotheses

The purpose of this study was to determine whether or not students who entered first grade at an earlier chronological age could successfully compete with late-entrance students regarding academics and self-concepts.

The following two groups were examined in this study:

Late Entrants were those students who were born between October, 1987 and March, 1988.

Early Entrants were those students born between April, 1988 and September, 1988.

The following null hypotheses were formulated for this study:

(1)   There will be no significant differences in academic achievement, between early-aged entrants and late-aged entrants, as measured on the Iowa Test of Basic Skills given in the Spring, 1994, and the Iowa Test of Basic Skills, given at the first grade level.

(2)   There will be no significant differences in self-concept between those students who are considered early entrants and those considered late entrants, as measured by the students' Behavior Rating Profile.

Profile.

(3)   There will be no significant relationships between the degree of popularity and age levels of first grade pupils as measured on the "My Three Friends" sociogram.

Summary of the Method of Investigation

A review of literature pertinent to this study was made. Three specific hypotheses were formulated. The 18 subjects involved in this study were divided into two groups based solely on chronological age, Early and Late Entrants. Composite scores from the Iowa Test of Basic Skills were taken at the Kindergarten and First Grade levels to determine the achievement of Early and Late Entrants. All subjects were tested and the results tabulated. An observed-t was computed and applied to a two-tailed t-test to determine if there were any significant differences in the mean composite scores between the Early and Late Entrants.

Table 1 presents the achievement between Early and Late Entrants of First Grade students using the Iowa Test of Basic Skills. The analysis of the mean ITBS scores between Early and Late Entrants showed no significant differences between the two groups. Table 2 presents the Growth/Loss of achievement of Early and Late Entrants. Even though both groups demonstrated growth, the Early Entrants exhibited a higher overall growth than the Late Entrants, but the data was not significant. Based on

56

the data collected, hypothesis 1 was accepted.

Table 3 presents an analysis of self-concept between Early and Late Entrants in the categories of Home, School, and Peer. The Early Entrants' scored higher than the Late Entrants in the areas of Home and Peer, but scored lower in the School category. Table 4 presents the total self-concept scores for Early and Late Entrants. Although the Early Entrants had a higher overall growth mean score, it was not significant. Therefore, hypothesis 2 had to be accepted.

Table 5 presents a statistical analysis stating the degree of popularity rank of individual students. No significant differences were found between the two groups. Therefore, hypothesis 3 had to be accepted.

Noted Trends in This Study

It was interesting to note that even though the Late Entrants had a higher mean score for achievement, the Early Entrants surpassed the Late Entrants in terms of academic growth in the time span between the Kindergarten ITBS scores and the First Grade ITBS scores. The younger students also showed greater total self-concept. In terms of popularity within the class, the Early Entrants had more Acceptances and fewer Rejections, making them the most popular within the class.

Even though the differences were not significant between Early and Late Entrants in the areas of academic achievement and self-concept, further studies need to be conducted. It was interesting to note that one

57

student in the Early-age group scored extremely high on both tests, establishing the fact that age alone is not a good predictor of school success. Due to the size of the sample, this study should not be construed as representational of all first grade students and should not be generalized to other populations.

<div align="center">Suggestions for Further Study</div>

This study can be considered a pilot study to help determine the success of Early-age students. Since this study only consisted of 18 first grade students, it would be interesting to study other Early and Late Entrants at different grade levels, especially in terms of academics and self-concept. Additionally, to help examine the successfulness of Early-age students, it would be necessary to follow the same students over a period of several years to see if they improved their performance consistently with Late Entrants.

Another aspect of this study that could be further investigated would be to examine the reasons why the Early-age Entrants scored higher on the concept test. Studies in future years could also investigate scores on the Early Warning Test to see if Early Entrants scored higher than Late Entrants in achievement. Researching the types of family-life the students come from would be an interesting topic to explore to see if that has an impact on student performance. Maturity and ability, combined with gender and chronological age could be studied.

<div align="center">58</div>

Further research should be conducted in which other variables can be isolated which may aid in predicting readiness for school. In addition, research and development of screening and testing instruments should be continued. On going investigation concerning alternative educational programs for children who may not be ready for school is needed. Many schools have already implemented two year programs such as developmental kindergartens and transitional first grade classrooms. Further research is needed to determine their effectiveness and to identify characteristics of children who might best benefit from each particular program. More studies should be conducted to determine if young children who appear unready for school would benefit by delaying entry into school for a year rather than facing the possibility of retention at a later time.

Biliography

Baer, C.J. (1958). The school progress and adjustment of underage and
overage students. Journal of Educational Psychology, 49, 17-19.

Beane, James A. & Lipka, Richard P. (1984). Self-Concept, Self-Esteem, and
the Curriculum. New York: Teachers College Press.

Bigelow, E.B. (1934). School progress of underage children. Elementary
School Journal; 25, 186-192.

Bloom, B.S. (1964). Stability and change in human characteristics. New
York: Jogn Wiley & Sons, Inc.

Bookbinder, G.E. (1967). The preponderance of summer-born children in
E.S.N. classes: which is responsible: age or length of infant schooling?
Educational Research, 9, 213-18.

Bracey, G. (1987). Getting a jump on schooling. Phi Delta Kappan, 68(7),
546.

Bracey, G. (1989). Age and achievement. Phi Delta Kappan, 70, 732.
Carrington, M.A. (1982). The effect of school entrance age on
achievement and adjustment. Dissertation Abstracts International,
43/08-A, 2503.

Brookover, W.B., Ericson, E.L. & Joiner, L.M. (1967). Self-concept of ability
and school achievement, III (U.S.O.E. Cooperative Research Report,
Projefct No. 2831). East Lansing, MI: Michigan State University.

Brown, L. & Hammill, D.D. (1990). A comprehensive approach to measuring the behavior of school-aged children at home, at school, and with peers. Pro-Ed, Texas.

Carrington, M.A. (1982). The effect of school entrance age on achievement and adjustment. Dissertation Abstracts International, 43/08-A, 2503.

Davis, G.B., Trimble, S.C., & Vincent, D.R. (1980). Does age of entrance affect school achievement? The Elementary School Journal, 80(3), 133-5.

Foote, E. (1991). Entrance age and visual motor integration. U.S.: Illinois.

Frick, R. (1986). In Support of Academic Redshirting. Young Children, 41(2), 9-10.

Gould, T.S. (1976). Home guide to early reading. New York: Walker & Company.

Green, D.R., & Simmons, S.V. (1962). Chronological age and school entrance. Elementary School Journal, 63, 41-47.

Hall, R.V. (1963). Does entrance age affect achievement? Elementary School Journal, 63, 391-396.

Ilg, F.L. & Ames, L.B. (1972). School readiness. New York: Harper & Row.

Ilika, J. (1969). Age of entrance into the first grade as related to rate of scholastic achievement. Corvallis: Oregon State University. (ERIC Document Reproduction Service No. ED 028 843).

Jackson, N.E., Famiglietti, J. & Robinson, H.B. Kindergarten and first grade teachers' attitudes toward early entrants, intellectually advanced

students and average students. Journal for the Education of the Gifted, 15-7.

Kagan, Sharon L. (1990). Readiness 2000: rethinking rhetoric and responsibility. Phi Delta Kappan, 272-274.

Kantrowitz, B. & Winpert, P. (1989). How kids learn. Newsweek, 113, 50-7.

Kalk, J.M. (1982). A closer look at school cutoff dates and achievement. (Education Commission of the States) Denver, Co: National Assessment of Educational Progress.

Mattick, W.E. (1989). Off to an early start. Teaching K-8, 19(7), 82-84.

Moore, R.S. & Dorothy N. et al. (1979). School can wait. Utah: Brigham Young University Press.

Moore, R.S. & Dorothy N. (1975). Better late than early: a new approach to your child's education. New York: Reader's Digest Press.

Ogletree, E.J. (1988). The developmental approach to school readiness. U.S.: Illinois.

Purkey, W.W. (1970). Self-concept and school achievement. Englewood Cliffs, NJ: Prentiss-Hall

Quandt, Ivan & Selznick, Richard (1984). Self-concept and reading. Delaware: International Reading Association.

Robinson, N.M. & Wimer, L.J. (1990). Early admission to kindergarten and first grade. American Educational Research Association, Boston.

Rogers, Carl M., Smith, Monte D. & Coleman, J. Michael (1978). Social

comparison in the classroom: the relationship between academic

achievement and selfconcept. Journal of Educational Psychology, 70,

50-57.

Roth, R.M. (1959). Role of self-concept in achievement. Journal of

Experimental Education,XXVII, 265.

Shank, M. (1990). Old enough but too young for school. Academic Therapy,

25(5), 579-88.

Uphoff, J.K. & Gilmore J. (1986). Pupil age at school entrance-how many are

ready for success? Young Children, 11-15.

Zill, N. & Wolpow E. (1991). School readiness: examining a national goal.

Principal, 14-8.

BIOGRAPHICAL DATA

NAME: Terri J. Wells

ADDRESS: 20 Gladwyn Road
                         Marlton, New Jersey
                         08053

HIGH SCHOOL: Cherokee

COLLEGE: University of North
                         Carolina, Greensboro

PRESENT OCCUPATION: First Grade Teacher,
                         Barrington, New
                         Jersey

APPENDIX A:

Student Rating Scales

TRUE   FALSE

○   ○   1. My parents "bug" me a lot.

○   ○   2. I don't have enough freedom at home.

○   ○   3. My parents treat me like a baby.

○   ○   4. I think about running away from home.

☐   ☐   5. My teacher often gets angry with me.

◇   ◇   6. Some of my friends think it is fun to cheat, skip school, etc.

◇   ◇   7. Other students don't like to play or work with me.

☐   ☐   8. Sometimes I get so angry at school that I yell at the teacher and want to stomp out of the room.

○   ○   9. I have some friends that I don't invite over to my house.

◇   ◇   10. Other kids don't seem to like me very much.

○   ○   11. I argue a lot with my family.

○   ○   12. My family doesn't do many things together, like going places or playing games.

◇   ◇   13. I get into too many arguments with people I know.

☐   ☐   14. I sometimes stammer or stutter when the teacher calls on me.

○   ○   15. When my parents don't let me do what I want, I get real quiet and don't talk.

☐   ☐   16. I am not interested in schoolwork.

○   ○   17. My parents don't spend enough time with me.

○   ○   18. My parents say that I am awkward and clumsy.

◇   ◇   19. Other people don't like to share things with me.

○   ○   20. My parents don't approve of some of my friends.

◇   ◇   21. I spend too much time playing/working by myself.

◇   ◇   22. My friends say that I am clumsy.

☐   ☐   23. The teacher doesn't choose me to run errands.

◇   ◇   24. Other kids don't listen to me when I have something important to say.

◇   ◇   25. I don't have enough friends.

☐   ☐   26. I can't seem to concentrate in class.

☐   ☐   27. My teachers don't listen to me.

☐   ☐   28. Usually, I am not interested in what my teachers have to say to me.

☐   ☐   29. My teachers give me work that I cannot do.

◇   ◇   30. Other kids say I act like a baby.

TRUE	FALSE	
◇	◇	31. I seem to get into a lot of fights.
◇	◇	32. It is hard for me to make new friends.
○	○	33. I have lots of nightmares and bad dreams.
◇	◇	34. I get real angry with the way other kids treat me.
○	○	35. My parents expect too much of me.
☐	☐	36. I sometimes play "hooky."
☐	☐	37. I have difficulty sitting still in class.
☐	☐	38. Often, I think about getting sick so I won't have to go to school.
○	○	39. My parents won't let me spend the night away from home.
☐	☐	40. I don't like it when the teacher tells me what to do.
☐	☐	41. Teachers are often unfair to me.
◇	◇	42. I get teased a lot by the other kids.
◇	◇	43. I rarely get to spend the night with my friends at their homes.
◇	◇	44. People think I'm unattractive.
☐	☐	45. I am dissatisfied with my progress in school.
☐	☐	46. I don't like to do chores in the classroom, like erasing the board or running errands.
○	○	47. I often break rules set by my parents.
○	○	48. I never get my way at home.
○	○	49. I am shy around my parents' friends.
☐	☐	50. Occasionally, I get so upset at things that happen at school that I get sick.
○	○	51. At home I'm always trying to get out of my chores.
☐	☐	52. I do a lot of daydreaming in class.
◇	◇	53. I don't tell anybody how I feel.
◇	◇	54. I am rarely invited to a friend's home to eat or play.
☐	☐	55. I can't seem to stay in my desk at school.
◇	◇	56. Other kids are always picking on me.
○	○	57. I don't listen when my parents are talking to me.
○	○	58. When at home, I spend too much time daydreaming.
☐	☐	59. The things I learn in school are not as important or helpful as the things I learn outside of school.
◇	◇	60. Some people think I am dumb.