EFFECTIVENESS OF A TRANSITIONAL FIRST GRADE PROGRAM

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF EDUCATION

By

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The purpose of this study was to determine the effectiveness of a transitional first grade program. A comparison of reading and math achievement and school attitude was the focus of the study.

The study utilized a pretest/posttest design. The group of regular first grade students who qualified for the transitional program but attended regular first grade was the control group. The group of transitional first grade students was the experimental group.

The regular first grade students received formal instruction in all academic areas. The experimental group received no formal instruction.

All students were pretested and posttested using the Iowa Test of Basic Skills and the Minnesota School Attitude Survey. Testing was administered to small groups of five or less by the researcher. Scoring was done also by the researcher.

An analysis of covariance was used to determine if a significant difference existed between the groups. The analysis of covariance did not produce a significant $F$ at the .05 level when applied to the Iowa Test of Basic Skills except for reading for boys in both groups. The
numbers in each cell were low and no further comparisons were made.

Due to a testing date that was approved late in the year, the Minnesota School Attitude Survey was determined to be invalid. Scores are reported for the reader's perusal only.
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CHAPTER I

INTRODUCTION

Texas state law allows children to enter first grade if their sixth birthdays fall on or before September first. Criteria for proof of chronological age is usually an official birth certificate. This practice assumes that all children develop at the same rate and are ready for the same experiences at the same time. The child's total development is not considered. Specialists have found that there is a possibility of a two year spread in maturation among normal children at the age of six. The law often causes school districts to take perfectly normal children into school too soon and thus spoil their chances of reaching their education potential (Carll and Richard, 1972).

Chronological age does not guarantee that every child is ready for school (Hedges, 1977). Documented symptoms of unreadiness include children who could not do first grade work, who cried upon arrival, and who seemed immature when compared to others in the class (Ilg and Ames, 1965; Gesell, Ilg, and Ames, 1976).

Many parents have chosen to send their children to kindergarten. By taking advantage of the kindergarten program, parents felt that their children would become
adjusted to school and acquire the necessary skills for a successful first grade year. Some students who attended kindergarten still are not ready for first grade and have a difficult time trying to adjust to the routine of first grade (Heffernan, 1962).

At the end of the kindergarten year, the kindergarten teachers in many districts are asked to assign students to "reading" levels so that first grade classes can be developed. There are usually three reading levels: above grade level (level 1), on grade level (level 2), and below grade level (level 3). This process, in essence, predicts the success/non-success of the students. Few children are retained in kindergarten. The students who have attended their kindergarten year of school and are assigned level 3 (below grade level) are most likely to be those students who are not developmentally ready for first grade. During their first grade year, they often become frustrated and exhibit disciplinary behaviors that are not conducive to a positive learning atmosphere. In addition, the students' attitude toward school becomes negative due to their lack of success.

In an attempt to alleviate the problems that level three children experience, a school district located in northeast Texas offered a transitional first grade program beginning in the fall of 1985. Participation in the program was on a voluntary basis.
Purpose of the Study

The purpose of this study was to compare reading and math achievement and school attitude of students whose parents chose to allow their children to attend a transitional first grade with students whose parents chose to allow their children to attend regular first grade, although they qualified for the transitional first grade.

Hypotheses

To carry out the purpose of this study, the following hypotheses were tested:

1. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of students whose parents choose to allow their children to attend a transitional first grade class and those students whose parents choose to allow their children to attend regular first grade although they qualify for transitional first grade.

2. There will be no significant difference in the math scores on the Iowa Test of Basic Skills of students whose parents choose to allow their children to attend a transitional first grade class and those students whose parents choose to allow their children to attend regular first grade although they qualify for transitional first grade.

3. There will be no significant difference in the attitude scores on the Minnesota School Attitude Survey of
students whose parents choose to allow their children to attend a transitional first grade class and those students whose parents choose to allow their children to attend regular first grade although they qualify for transitional first grade.

4. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the boys in the transitional group and the girls in the transitional group.

5. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the boys in the two groups to be tested.

6. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the girls in the two groups to be tested.

7. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the younger students who are six years old, six years one month, six years two months, and six years three months in the two groups to be tested.

8. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the older students who are seven years old after September one, six years eleven months, six years ten months, and six years nine months in the two groups to be tested.
9. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the younger students in the transitional group and the older students in the transitional group.

10. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of low socio-economic status students with a family income of less than $1250 a month in the transitional group and in the regular group.

11. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of high socio-economic status students with a family income of more than $1250 a month in the transitional group and in the regular group.

12. There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of high socio-economic students and low socio-economic students in the transitional group.

Definitions

1. Behavioral age/Developmental age/Growth - the age at which a child is behaving as a total person. The age at which a child can sustain and function with ease, progress in emotional stability, intellectual maturity, and social competence, as well as physical growth (Ilg and Ames, 1965).
2. **Child-at-risk** - a child who cannot sustain and function with ease. "At risk" is defined as children who, because of problems of development and/or experience, are least able to meet the expectation of the school unless the teaching/learning expectations are modified or changed (Zeitlin, 1976).

3. **Transitional First Grade** - a grade between kindergarten and regular first grade that gives the developmentally non-ready child an extra year of growth prior to attending regular first grade.

4. **Reading levels** - levels 1, 2, and 3 - Those children who are working above grade level are referred to as level 1 children; those children who are working on grade level are referred to as level 2 children; and those children who are working below grade level are referred to as level 3 children.

5. **Younger students** - boys and girls having birthdays in the months of May, June, July, and August, 1979.

6. **Older students** - boys and girls having birthdays in the months of September, October, November, and December, 1978.

7. **Low socio-economic students** - students who are participating in the free federal lunch program with an estimated monthly income of $1250 or less.
8. **High socio-economic students** - students who are ineligible to participate in the free federal lunch program.

**Limitations**

This study was limited to populations comprised of level 3 first grade students of similar socio-economic backgrounds; therefore, the findings are generalizable only to similar students.

**Significance of the Study**

This study was important in that it will assist in future decisions to be made concerning the "child-at-risk" in districts considering programs of this type. A school district which piloted a voluntary transitional program for students eligible for first grade for the 1985-86 school year was the target of this study. Focus of the study was on statistically significant differences in reading and math achievement and school attitude of students whose parents chose to allow their children to attend a transitional first grade and students whose parents chose to allow their children to attend regular first grade but qualified for the transitional first grade program.
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CHAPTER II

REVIEW OF LITERATURE

Introduction

American schools have been organized in a graded structure since the mid-1800's (Ayres, 1909). The reasoning underlying this system was that knowledge can be compartmentalized into a series of hierarchical skills that any child can realistically be expected to master during a given year (Anderson and Ritsher, 1969). Translated into a theory of grade standards, this principle requires every child to assimilate a specified amount of knowledge before he/she can be promoted to the next grade (Caswell and Forshay, 1957).

Expectations of a graded system have presented problems of what to do when a child did not master the criterion skill for a designated grade (Cook and Claymer, 1962). In some cases grade retention (or non-promotion) was adopted; in others social promotion was the practice.

Retention has been the practice of requiring a student who has been in a given grade for a full year to remain at that level for the next school year (Jackson, 1975). The literature on the effectiveness of retention as an academic intervention strategy suggested that there
was no reliable body of evidence to indicate that grade retention was more beneficial than grade promotion for students with academic or adjustment difficulties (Jackson, 1975). Dobbs and Neville (1967) provided some evidence indicating that retention in the first grade was not only ineffective but could result in deleterious effects on academic performance. Social promotion has been abandoned because children were unable to advance in academic skills without remediation (Dolan, 1982).

Chronological Age as a Criterion for School Entrance

Chronological age in most states has been the only criterion by which children are allowed to attend school. According to Ames (1965) chronological age was not adequate for determining the time to begin school. Children who were legally old enough to begin school were often not old enough in their behavior to do well or show success in school. Ames further stated that behavior was to a large extent a function of structure. This was explained by the fact that a person behaved as he did because of the way his body and brain were constructed. By using chronological age for school entrance, only fifty percent of any group of children could be considered reasonably ready for school.

A majority of states in the United States have had an arbitrarily set minimum age for entering first grade.
Ammons and Goodlad (1955) referred to Birch's study in Pittsburgh where forty-three children were admitted to first grade at an early age. These children ranged in age of five years four months to one day short of being legally old enough for attendance. Into their second semester of their third grade year, teachers commented that an overwhelming majority were making satisfactory school adjustments in all areas: academic, social, emotional, and physical. Ammons and Goodland report that others have found similar results from their studies; but there were also reports that stated that children who were allowed to enter school early were at a disadvantage. The implication of their findings were that children should be held back from beginning tasks until they could perform the tasks with no difficulty. Careful screening of children should be performed prior to admitting them to school according to Ammons and Goodlad.

Hymes (1964) stated emphatically that there was a "Right School-Starting Age" and that age was three. At three, children had made progress in social maturity, were ready for intellectual stimulation, and were ready physically for school. They blossomed as students because they felt good about themselves and others and felt good about the world in which they live. Hymes said that the school must be right for the children, also. It must have the right equipment, the right program, and the right
spirit and sensitivity. Hymes emphasized that the school and the variables were the key to success for the three year old.

Rowland and Nelson (1969) argued that schools should admit children on a flexible basis. In their study they found that fifty-seven districts used a flexible policy for school entrance. Tests were administered to children in these districts which involved from fifteen minutes to four hours. Amounts of money related to testing in these districts ranged from five dollars to more than fifteen dollars per student. Rowland and Nelson felt that this policy would gain in acceptance as educators gain in knowledge and skill in measurement.

Thier (1967) proposed that children be admitted to school on their birthday. This approach required that schools have an ungraded educational plan that would have strong emphasis on individualized instruction. He stated that children could start as young as three years of age, depending on the district's policy.

Other researchers have found that age of entrance to school affects student's achievement. Davis, Trimble, and Vincent (1980) reported from their study that at the first grade level, achievement of six year old entrants was significantly higher than achievement of five year old entrants. The authors stated that leaders should question policies that allowed children to enter school using only
a chronological age of five years for first grade with no requirements for measures of readiness.

Dickinson and Larson (1963) stated that as children grow older, differences that existed at early ages became magnified. Motivation was a factor that needed consideration. They have found that mental age was a much better predictor of achievement than intelligence quotient. They also found that as mental age increased so did achievement, but intelligence quotient did not (Dickinson, Larson, 1963).

Scores on the reading tests, however, did show a positive relation to age. Green and Simmons (1962) stated that chronological age of itself appeared to be less important than mental age and years of schooling. They believed the well-established fact that achievement related to age did not prove that it would be profitable to raise the minimum age for school entrance. By recommending ungraded primary units, they thought pressures that have led to manipulation of entrance age would be eliminated.

Hedges (1978) reviewed literature of research on optimum age of entry into first grade. He noted the inadequacy of chronological age as a predictor and indicated an optimum mental age of six and one half years for most students as an appropriate entrance age to first grade.
Wonderly (1981), as a result of her study, recommended a closer look at the possibility of a differential starting age of five and one half for males going into kindergarten. For females she recommended age five.

Simner's investigation revealed raising entrance age to be less productive. He suggested a psycho-metrically based screening program supplemented by intervention geared to the needs of the failure-prone child (Simner, 1983).

The majority of schools continue to enter children on the basis of their chronological age. This age requirement varies a great deal from state to state, and seems often to depend more on legislative actions than on research conducted concerning the effects of the age requirement on the children (Ames, 1966; Hedges, 1977).

Early Entrance

DiPasquale and Flewelling (1980) studied children who entered kindergarten early. They discovered that these children did not achieve as well as children who entered at an older age.

King (1955) also studied children who entered first grade prior to their sixth birthday as compared to a group who were six by the time they began school. Despite a mean difference of two points in intelligence quotient
scores in their favor, the younger students did not achieve as well as the older students. When intelligence quotient and sex were held constant, the older pupils were significantly superior in achievement. It was found that the younger children were placed in situations that were beyond their developmental abilities. As a result they were not able to reach their maximum achievement capacity and were candidates for social and personal problems. Having attained a few additional months of chronological age at the beginning of school was an important factor in a child's ability to meet school imposed restrictions and tensions.

Achievement was not the only area in which early entrants experience difficulty. Because early entrants were not on the same development level as older entrants, the early entrants experienced difficulties in social and emotional adjustments. Hamalainen's (1952) study revealed that twenty-four percent of the early entrants had adjustment problems and only six percent of the older entrants.

Weinstein (1968) also found that early entrants experienced more difficulties. Later in their school careers they were more likely to be referred to as disturbed. Chronological age was relevant insofar as it was correlated with mental, social, emotional, and physical maturity. She stated that early entrants who
were screened for mental, social, emotional, and physical maturity did as well as or better academically than older, unscreened, normal entrants. Screening appeared to be of major importance to children entering school. Some evidence existed that mentally advanced early entrants compared to normal entrants of equal intelligence could experience academic disadvantages. Younger first graders who were less mature mentally, were also less mature physically, socially, and emotionally. They were less ready to learn academic skills, to sit quietly, to concentrate, to follow directions, to share the teacher's attention, and to work neatly with pencils and crayons.

Chronological age requirements for entrance to school were recommended for revision in a *Phi Delta Kappan* article in 1959. The revision was to consider a more realistic approach to a differential age for students entering school.

Two studies on entrance of bright students to school at an early age showed that the children did as well as or better than average pupils who were admitted at the normal time. They failed to concern themselves with comparing the early entrants with normal entrants of similar ability or determining if early entrance improved achievement.

Simmons (1962) compared a group of boys and girls who entered school at a younger age with the same number that entered after their sixth birthday. The mean difference
in the children's ages was a little less than six months. Since no interaction was found by an analysis of variance between age and sex on any of the tests in the achievement battery, the data collected was not treated separately. In all instances the mean scores for the older children were higher than those of the younger children. The mean scores for most of the children exceeded the actual grade placement of the children. This was an expected result since most of the children had high intelligence quotients.

Gott (1963) studied the effect of age at kindergarten entrance on achievement. Older children were found to achieve more than the younger groups in all subjects at nearly all grade levels.

Halliwell and Stein (1964) compared the achievement of early and late starters to school in reading related and non-reading related areas. It was found that children who entered school at an older chronological age were significantly higher in academic achievement than those who entered early. Eye coordination was felt to account for some discrepancies in achievement between the older and younger first grade pupils.

The age at which a child entered school was partially related to school attitude. The earlier a child went to school, the more negative his attitude toward school (Husen, 1967).
Child Development

Interest in child development as a science began toward the late nineteenth century and early part of the twentieth century. Isolated studies of individual children led to questions about children in general which in turn led to large-scale investigations of child development processes. A wealth of information and numerous approaches to the study of child development resulted from these investigations. Some of the most popular approaches were the behavioristic approach, the nominative-descriptive approach, the field-theory approach, the psychoanalytic approach, and the cognitive-developmental approach (Gardner, 1973).

Maier (1978) stated that some theories of child development could be viewed as parallel and an integration of affective-behavioral-cognitive development. These three were complementary when superimposed upon one another. All three of these approaches postulated a system of development that was orderly. Development is a dynamic, continuous change; a process in which all new development finds its roots in previous acquisition. Piaget (1961), Erikson (1971), and Sears (1971) located in external circumstances the decisive factors in determining the rate of development (Travers, 1977).

Although the above approaches relied on a system of development, each child was considered to have a unique
pattern of growth. There were certain basic traits and
growth sequences that were typical of the human species in
a modern culture. Girls have been found to mature more
rapidly than boys even though their course of development
was similar (Gesell, 1976). Efforts to speed up cognitive
development as well as behavioral stages have been
unsuccessful. Any positive effects from these efforts
were seldom lasting (Ames, 1974).

According to Gordon (1966), children must be thought
of as operating as an integrated organization and any
separation into emotional, social, and intellectual areas
was considered highly artificial. Intellectual structure
required to master concepts was interrelated to
experiences.

Prahl, Kowalski, and Heydendael (1979) were in
agreement with Gordon. They agreed that the patterns of
development were independent of one another. Each
component of physical, mental, and social development was
a part of a feedback system influencing the development of
the total organism.

Although Piaget (1953) was concerned mainly with
cognitive development, he said that a child's environment
and past experiences influence the acquisition of
knowledge. Piaget (1961) and Baruth (1980) made attempts
to solve problems of knowledge acquisition by studying the
developing child. Many agreed that the stages of growth
and development were sequential (Bybee, 1982; Piaget, 1961). Some researchers stated that it was possible for children to advance more rapidly from one stage of development to another if they were placed in an intellectually stimulating environment (Almy, 1966).

Piaget (1953) stated that a child learns what he is cognitively capable of learning. He stressed very strongly the importance of maturation in mental as well as physical development (Piaget, 1961). Having reached a certain age does not mean that a child has reached a certain state of logical development (Lavatelli, 1973).

Carll and Richard's (1972) point of view centered on the understanding that growth was orderly, structured, and predictable. They found children have their own rate and pattern of growth particular to themselves. They, like Gesell, believed that readiness for any given task had its roots in the biological-maturational makeup of the child (Carll and Richard, 1972).

Gesell Institute of Human Development

There were researchers who felt that just looking at physical and mental growth would not produce a picture of a child's total development. Gesell Institute of Human Development recommended that four areas of development should be considered. They were physical, intellectual, emotional, and behavioral (Ilg, Ames, 1965).
Ames and Ilg studied child behavior for more than forty years and Gesell studied behavior even longer. As a result of their studies, they concluded that children should be admitted to school based on a behavioral age rather than a chronological age. In order to determine a behavioral age, they developed a series of tests that evaluate the areas of physical, intellectual, emotional, and behavioral maturity. Testing has been conducted in Visalia, California; Bennington, Vermont; Cheshire, Connecticut and other cities (Gesell, 1976). Standardization was achieved between 1958 and 1962 (Ilg, Ames, 1965).

Ames and Ilg (1979) and Haines and Gillespie and Gillespie (1985) were also in agreement that development was a series of remarkably patterned and largely predictable stages. Time and experience from their studies confirmed their belief. Each child is born with potentialities to him or her which determined for that child a unique pattern of growth. Every child is an individual, different in many ways from every other child (Ames, Ilg, 1979). Certain basic traits and growth sequences, however, were typical of the human species of a modern culture. Even though this general course of development was similar for both sexes, girls have been found to mature somewhat more rapidly and earlier, prior to and during their school years (Gesell, 1976). They
found that a human organism acted as it does due to the way it was built and the experiences it has had (Ilg, Ames, 1955).

The ideas of Piaget (1961) and Gesell (1976) were very similar. The idea of equilibrium and disequilibrium in stages were examples. They both believed that experiences influenced a child and that development was a sequenced pattern. The Gesell Institute of Human Development went further into evaluating readiness for school tasks in that they included more than just age and intelligence in their testing. Birthday or chronological age did not guarantee readiness for school. The development of intelligence tests resulted in parents pushing to have their intellectually superior children admitted to school. Since intelligence was only one part of the child's total personality, maturity and other areas were not measured. A child could possibly test out to be of superior intelligence, but prove to be behind others of his age group in either physical or behavioral maturity. When neither age nor intelligence was found to be an adequate measure as a school entrance criteria, educators became concerned with finding other possible measures of school readiness. Several readiness tests have been developed, but Gesell and others felt that these tests fell short of evaluating the total child to determine school readiness. The Institute believed that a child's
behavioral level rather than his age in years was the correct clue to good grade placement. They believed that in order to have a representative picture of a child's total developmental age, one must look at the four areas of development. The rate of growth of a child should correspond to academic placement in order that the child may have a better chance of succeeding in school (Ilg, Ames, 1965).

If children were found to be young or immature and were recommended for delay of formal schooling, it was important for parents to realize that immaturity did not necessarily mean that the child was lacking in intelligence. Children who were fully ready for first grade, other things being equal, would experience success in school (Ames, Ilg, 1979).

Children being expected to perform at a level for which they are not developmentally ready resulted in many school difficulties. Some difficulties noted were emotional disturbance, learning disability, and underachievement. Levenson reported placing children by developmental level can result in more effective teaching and learning and happier students (Levenson, 1977).

Readiness for Academic Learning

Ogletree (1972) analyzed the nature of readiness and viewed the complexities of human growth as a holistic
process, with physical and mental development in a cause-effect relationship. Orderly sequence of neuromotor growth affected the capabilities for certain learning and performance fell along an age-readiness scale.

Ames and Ilg (1979) and Hedges (1978) stated that chronological age was no guarantee of school readiness. Symptoms of unreadiness could emerge at school or at home. Some symptoms of unreadiness that Gesell, Ames, and Ilg (1976, 1979) found in their studies were restlessness, short attention span, struggling to do work, crying upon arrival, failing to participate in group activities even in the most relaxed settings, and bothering other children. It was also found that eye and hand coordination was a factor to be considered when studying the unready child.

Behrmann (1972) stated that factors other than the three Rs should be considered when assessing a child's readiness for school. These factors were physiological, social, and emotional.

Brenner (1957) placed emphasis on recognizing a child's school readiness as a matter of total development, based on interactions of factors from all areas of personality. Heffernan (1962) has investigated the pressures that children experience by starting school too early. She emphasized the importance of readiness assessment for school entrance.
Rather than "catching up," deHirsch (1966) found that non-ready children often fell further behind. Research conclusions suggested that there was a close link between a child's maturational status at a kindergarten level and with later reading and spelling achievement.

Hilgard (1957) summarized research on principles of readiness and pacing. He stated that skills built on developing behavior were most easily learned. The more mature organism needed less training to reach a level of proficiency. Training before maturational readiness brought only temporary, if any, results. Premature training might do more harm than good.

Zeitlin (1976) stressed the importance of screening for children in order to identify immaturity. Identification of immaturity allowed for special consideration to be given to any disabilities that the child may have before they developed into serious learning and emotional problems.

The Association for Childhood Education (International) (1947) stated that a teacher must be equipped not only with knowledge of the stages of development-physical, mental, emotional, and social—but also with an ever increasing fund of information about individual children. Signs of readiness in the child were emphasized.
Children who were not ready for school experienced unnecessary pressure. The less ready the child, the more chance he would be unable to cope with this pressure as well as the pressure he might be receiving from his parents (Doll, 1966).

Hedges (1977) reviewed the research information on school entrance and reading readiness through 1976. He concluded that children differ greatly at any given age in their rate of maturation thus a given chronological age was no guarantee that a child was ready to begin school. He concluded there was overwhelming evidence to delay school entrance of immature children. Reading research repeatedly showed failure in reading was not usually a function of the innate capacity of the child. He stated there seems to be a clear correlation between maturity and school success. Hedges noted variations of as much as five years in reading readiness at age six.

Readiness Tests

Numerous readiness tests have been developed. Some of these tests predicted readiness for different academic areas and some for entrance into school.

Telegdy (1975) examined four tests to predict first grade success. The tests that were compared were the Screening Test of Academic Readiness, the Bender Gestalt, the First Grade Screening Test, and the Metropolitan Readiness Test.
According to Levenson (1977) many teachers have used some of the tests described in the Gesell Institute's battery of tests entitled School Readiness: Behavioral Tests. The tests assessed the overall development of each child by including physical, social, and emotional areas. There were no right or wrong answers and no numerical score. Therefore, the training of examiners was very important.

Barnes (1982) criticized the Gesell Scales. He stated that although there was nothing wrong in using the procedure that Gesell recommends, most of the measures were not constructed for screening purposes. He claimed that it was not always clear as to their relevance in the detection of an underlying handicapping condition. Revealing underlying handicapping conditions was not the purpose of these tests.

Andrews' (1971) study with kindergarten children demonstrated Gesell School Readiness Tests to be a good predictor of school readiness with developmental age as a consistent measure of predicting success in school. She concluded that entrance into school should be flexible and realistic and based on a minimum developmental age rather than a set chronological age.

Kaufman (1971) and Kaufman and Kaufman (1977) have found both Piaget and Gesell test batteries to be excellent predictors of first grade achievement with the
Gesell School Readiness Test empirically supported as a predictor of school readiness. A reliability coefficient of .80 was reported which supports the Gesell School Readiness Test as a reliable measure of behavioral maturity.

Dunleavy's (1981) study dealt with kindergarten children and the Human Figure Drawing Test. It was found useful for early identification of academically nonready children. A group who passed the Metropolitan Readiness Test and a group who failed the Metropolitan Readiness Test were compared. The data revealed that those identified by the Human Figure Drawing Test as nonready was correct.

Another study involving the Human Figure Drawing Test as a predictor of school readiness was conducted by Szasz (1980). Szasz determined to investigate the possibility that the use of E. M. Koppitz's developmental and emotional scores could improve the predictability of school readiness from children's Human Figure Drawings when compared separately. He found that Koppitz's developmental and emotional scoring systems were not viable screening instruments.

Popovics (1982) investigated the predictive validities of the five component actuarial scores of the Gesell Copy Form Test-Basic Form, Proportion, Corners and Closures, Size, and Size Range to determine whether any
subscores were able to predict selected achievement, intelligence, and creativity measures more effectively than the Copy Form total acturial score over a five-year interval. Criterion measures that Popovics included were the Iowa Test of Basic Skills, Lorge-Thorndike Intelligence Test, Goodenough-Harris Figure Drawing Test, and Torrance Circle Test. The total acturial score consists of a numerical rating of the reproduction of specific geometric forms. The preliminary investigation revealed that the Basic Form, Proportion, and Corners and Closures scores provided reasonable long-term estimates of most of the selected achievement and intelligence criterion measures for the population studied.

Klein (1977) tested the validity of the Screening Test of Academic Readiness in predicting the achievement of first and second grade students. Two sample groups of kindergarten students were assessed using the Screening Test of Academic Readiness. At the beginning of the first grade year, the Stanford Early School Achievement Test was administered to both groups of students. At the beginning of the second grade year, the Stanford Achievement Test was administered to one group. It was found that the total scores on both subtests appeared to be the best predictors of academic achievement in both first and second graders.
Scores from the subtests of the Peabody Individual Achievement Test and the Screening Test of Academic Readiness Test were correlated by Nichta (1982). Results showed that the Screening Test of Academic Readiness to be a useful predictor of achievement.

Retention

For the child who had begun school before he was ready, the cure was often grade level retention. Ames and Gillespie (1970) felt that if retention was necessary, that it must be handled properly. The child must be made to feel good about repeating a grade. By all means repeating did not necessarily mean the answer for all children.

Chase (1968) found from her study that teachers believed repeating for their children fully met the needs of seventy-five percent of them. Emotional upset was not a factor in seventy-eight percent. Her study considered only children who were considered basically normal but immature for their grade.

The Scott and Ames (1969) study reported similar findings as Chase. They found that children obtain better grades in the year of repeating.

Ames (1981) stated that retention in grade could be the answer to a child who is immature. Using a child's behavioral age as the basis for placing him in school was the best criteria.
Donofrio (1977) recommended from his study that if retention in grade were necessary, the kindergarten year was the most important step in preventing failure for children who were entered early. Learning and emotional problems were related to immature children, a problem confounded by the unrealistic, environmentally oriented educational system.

Sandoval (1984) found that schools retain students using a decision making process that is holistic, based on multiple criteria. From his study the children retained appeared to have exhibited an academic incompetence, low cognitive development, and low visual-motor skills. Sandoval stated that non-promotion was a crude intervention. He suggested that the blow of repeating the first grade was not as great to self-concept and emotional development as the fact of going on to the second grade and remaining at the bottom of the class. The successfully retained first grader emerged in the top third academically of his repeated first grade class (Sandoval, 1984).

Jackson (1975) referred to a 1963 study suggesting retention. The rationale was that students who had not adequately mastered the material at the grade level they had just completed would not be equipped to profit from the material at the next higher grade level. For their own good they should not be promoted.
Bocks investigated the question of whether grade repeaters achieved greater mastery and stronger social maturity by responding to the threat of non-promotion. The overwhelming results were that not only is this practice of no benefit to the child, but often it is harmful (Bocks, 1977).

Cooper favored kindergarten through second grade retention as a result of her study. Retention in third through fifth grades was discouraged as an intervention method. She found less than one percent of all students in elementary school to be actually retained in grade (Cooper, 1980).

Reiter suggested a youngster should be exposed to meaningful learning experiences at a level appropriate to him. Unless he was emotionally and mentally prepared to handle the experience, the question of whether or not he is promoted should not become a major issue. Promoted or not, under these circumstances, he would benefit very little from school curricula. He found from his review marks in repeated subjects tended to be lower than those in subjects taken for the first time, failure caused forgetting of material that was once learned, and the threat of failure did not increase the rate of educational gain of pupils who were threatened. Repeating a year's work did not assure the overcoming of a deficiency in academic achievement. Low self-concept was a concern as
was negativeness of homogeneous grouping. He found some of the problems evident in nonpromotion remained uncured by automatic promotion, while others had been merely replaced by a different set of problems. He favored an individualization and/or non-graded school setting (Reiter, 1973).

Claflin reported significant findings which included: kindergarten and first grade teachers accounted for a clear majority of all retentions, teachers holding advanced degrees retained at a greater rate than those holding bachelor's degrees, and teachers with five years or more experience retained at a greater rate than teachers with fewer years experience. Teachers, principals, and psychologists were most important in the decision of retention. Significant recommendations by Claflin were: instructional programs for parents to provide awareness concerning retention, development of inservice programs for teachers to review the components of retention, and concentrating the practice of retention in kindergarten and first grade (Claflin, 1984).

Hughes found in her study pupils who were considered for retention were developmentally at a lower level than their promoted peers. Pupils who demonstrated the greatest cognitive growth would also demonstrate the greatest academic progress. The results she reported supported pupils considered for retention were cognitively
immature compared to their regular promoted peers (Hughes, 1983).

Significant differences were found by McCoy in her study. Differences between age and readiness, retention and socio-economic status, and retention and repeater status were reported (McCoy, 1983).

Attitude Toward Formal Instruction

Attitude of young children toward formal instruction has been the focus of several researchers. Elkind (1986) reported young children learn best through direct encounters with their world rather than through formal education involving the inculcation of symbolic rules. Froebel, Montessori, and Piaget have noted through their child studies the fact that young children learn differently from older children and adults. Research in child development supports these findings. Educators are urged to keep in mind the unique modes of learning for young children. These practices have resulted in positive attitudes of young children toward learning and the school environment.

The observations from ninety elementary and junior high schools have revealed the fact that establishment of classroom climate is formed in the first few weeks of school. Teachers begin the very first day to mold the structure of the classroom—the teaching-learning
environment. According to Evertson (1981) this climate results in either a positive or less than positive attitude toward the learning environment. The type of environment is dependent upon the classroom management of the teacher. The first days of school are reported to be crucial to the remainder of the year.

The stress with which young children are forced to cope influences the attitude they develop toward formal education. Elkind (1984) stated that stress is their way of indicating that they are not totally ready for formal education, although their intelligence quotient may indicate they are. Physical and attitude problems result from the stress. Elkind (1986) further states exposing young children to formal education is "miseducation," putting them at risk for no purpose. These risks are both short- and long-term with stress resulting from short-term risks. Formal instruction places stress on young children to attend to instruction in narrow catagories defined by adults, such as reading, math, science, etc. Young children learn in a total sense rather than narrow catagories. They need a sound program suited to their learning styles. Such a program encourages children's self-directed learning by providing an environment that is rich in materials to explore, manipulate, and about which to talk. Given the opportunity to learn in their natural mode of learning builds a positive attitude toward
learning and school. Children who were allowed to enter school when they were developmentally ready—ready mentally, emotionally, physically, socially and maturationally—developed positive attitudes toward school. In some instances those who entered on the basis of age and intelligence quotient were reported to have developed a less positive attitude (Elkind, 1981, 1986).

Teagues (1983) reports the purpose of elementary education is to provide a high volume of successful experiences. The wise educator builds strengths in the early grades rather than risk playing emotional or academic catch-up in the intermediate grades. The power of positive self esteem and school attitude are readily apparent in the elementary school experiences in a class that emphasizes time to grow, perceptual motor skills, self-esteem, activities to sharpen the senses, listening and oral expression activities, social interaction and academics for those who exhibit readiness for them.

Mayfield in 1983 recommended transitional first grade in order to prevent the development of a pattern of failure for children who are not ready for formal education. A pattern of failure results in poor school attitude and poor self-esteem.

Transitional First Grade

An alternative to grade retention for youngsters with academic difficulties was the transitional program
(Zinski, 1983). The rationale that underlies the transitional class concept drew heavily from the developmental theory of Arnold Gesell (1928). Gesell, a leader in the area of early childhood development, purported that human beings, beginning at infancy, advanced through several developmental stages (Ames and Ilg, 1979 and Haines and Gillespie and Gillespie, 1985). These stages, however, were not dictated solely by chronological age. The developmental growth pattern could differ dramatically from person to person, and each developmental stage dictated an individual's readiness to successfully attempt certain tasks. To expose a child to tasks that were above his/her developmental level were futile and the child should be held back from such tasks until he/she attained the appropriate stage of readiness. This might necessitate two or three levels of schooling prior to entering a regular first grade class. Gesell suggested that either a pre-first grade program should be offered to these children or that they be retained in first grade until they are developmentally ready to progress (Ilg and Ames, 1978). The transition program was designed for first grade eligible youngsters who had not demonstrated a firm grasp of those skills considered prerequisite for successful performance in a first grade curriculum (Zinski, 1983). Zinski stated transition first grade programs had been instituted in several school
districts throughout the country as alternatives to simple repeating of the same grade.

According to Gredler (1984) transition classes were utilized in a number of large schools in the 1940s, but the concept did not spread at that time. In 1950 a study of the transition room was conducted in the Detroit city schools. It was found over a period of three years children who remained in the regular class achieved at a significantly higher level in reading. Gredler found in the Quincy, Illinois, schools, children were placed in the transition room for a variable time period. Emphasis was placed on efforts to integrate the child back into the regular class without necessarily being held back a year. It was reported that such a program was of value in improving the academic performance of many of the children.

In Quincy, Massachusetts, the transition room was also recommended. A kindergarten-type curriculum was used, which the students repeated (Gredler, 1984).

The selection of children to attend a transition room program was a decision generally made at the end of the kindergarten year. Gredler maintained that supporters of transition room programs felt students were better prepared for regular classes (Gredler, 1984).

Gredler (1984) referred to a study of the transition room in a Detroit suburban school district. This study
was two years in length and the results noted were children at-risk in regular rooms made greater achievement in reading than did readiness room students. According to Gredler, readiness room students showed a loss of self-esteem and self-confidence compared to the at-risk children who were mainstreamed.

Gredler (1984) reviewed a recent study which investigated the value of a transition room that had been in existence for twelve years in a Washington State school system. Children were placed in a transition room on the basis of a low score on the Metropolitan Readiness Test and recommendation of the teacher. Students were promoted from the transition room to regular first grade. Findings indicated children who had been in a transition room and thus had two years of school were no better in reading achievement than younger children who had had only one year of school.

Another study reviewed by Gredler (1984) investigated the progress of young children in the Roseville, Minnesota, school. A strong argument for the value of the use of the transition room was made. A comparison was made of transition room students to students who qualified but were placed in regular first grade. No differences in academic achievement were found between the transition room children and "potential" first-grade failures,
although scores for reading achievement were in favor of
the transition room.

Kilby (1984) studied the transition room program
called junior-first grade in Sioux Falls, South Dakota,
which had begun during the 1970-1971 school year.
Evaluation findings indicated that the program may have
had a positive impact in three main areas: reading
achievement, placement in special education for learning
disabilities, and grade repetition. Reading scores on the
Iowa Test of Basic Skills were compared and scores of
program participants exceeded those of their counterparts
to a significant degree. When reading ability was held
constant, reading achievement for program participants
over a four year period consistently kept pace with their
classmates. A lower percent of program participants were
placed in special education programs compared to their
counterparts. It was found that only one tenth of one
percent of the students who had attended junior-first-
grade had to repeat a grade. Kilby recommended the
program to head off failure before it started. She stated
that organization to foster academic success in the
crucial elementary years should identify children-at-risk
of future academic difficulties, provide an appropriate
program for intervention and an evaluation program. Kilby
believed such a program would reduce the struggle of these
youngsters.
Solem (1981) investigated the junior-first-grade program in Sioux Falls, South Dakota, which had been offered since 1970. Kindergarten teachers identified candidates for the transition classes. Teacher observation and judgement and children's scores on the Yellow Brick Road Screening Test and the Metropolitan Readiness Test were taken into consideration. A Pupil Behavior Rating Scale was completed by the kindergarten teachers also. The junior-first-grade instructional program was designed to improve reading and math readiness; to develop oral language; and to increase a child's ability to understand spoken language, to listen, and to follow directions. Activities focused on developing gross-motor and eye/hand coordination. Teachers nurtured social and emotional maturity, self-reliance, self-control, and cooperation. Development of a healthy self-concept was an essential component of the program. The curriculum also included music, art, and physical education. Health, science, and social studies were taught only incidentally, when the appropriate situation arose. When inquires concerning achievement were made, it was found that in 1978 twenty-five percent of transition youngsters ranked in the top quartile of their first grade classes, twenty-five percent ranked in the lowest quartile, and fifty percent ranked in the second and third quartile. In 1980, twenty-eight percent
of the transition youngsters ranked in the top quartile of their first grade classes, seventy percent ranked in the second and third quartile, and only two percent ranked in the lowest quartile.

Zinski's study (1983) addressed the problem of whether participants in a transition curriculum prior to first grade was more effective in enhancing reading development than traditional grade repetition. Reading and language achievement and teachers' perception of student's ability and grade readiness were examined. No significant difference between transition and non-transition subjects on any of the independent variables measured was found. Zinski stated that confounding variables may have obscured significant differences in the obtained data and that a one year follow-up was too soon to demonstrate the benefits of the program. She did state that students participating in transition maintained a forward progression without the experience of not being able to compete and consequently fail the first grade. Zinski found that the transition program prevents failure while grade repetition emphasized it. No significant difference was interpreted to indicate that one treatment had no better or worse effect on a given group than another. The transition students successfully accomplished in a single year what the retainees needed two years to master. Transition allowed them the time to
grow without wasting a year in a curriculum in which they could not succeed. Viewed from this perspective, the effectiveness of transition was a viable alternative to first grade repetition.

Carll and Richard (1971) advocated a pre-first grade or transition program for children who were developmentally not ready to successfully accomplish first grade tasks. There were three major goals or components to the program; time to grow and develop at one's own pace, experience through which one could make discoveries about the world and about oneself, and acceptance without condition—respect for the uniqueness of the human being and concentration on the positive abilities already developed as well as those emerging.

Dobbs and Neville (1967) stated the continued promotion of a child who was unable to gain about a year in achievement each school year eventually placed him/her at a grade level where he/she has difficulty functioning. The needs of low achievers would not be met until they had an educational setting which provided for maximum academic growth and fostered a more positive life adjustment through satisfying success experiences.

Talmadge (1981) found after controlling for prior cognitive ability the impact of transition room placement appeared detrimental to early reading achievement in comparison to regular first grade. Instead of promoting
readiness, transition rooms might simply delay instruction.

Gredler (1984) reviewed the academic progress of children who were placed in transition rooms in a Detroit suburban school district. He found that the children who qualified for the transition class but were placed in a regular class made greater achievement gains in reading than did children placed in the readiness room program. The transition room program was found to be a slower paced instruction with small groups.

Gredler (1984) also reported on an investigation of the effects of transition room placement on a group of children in the Alton, Illinois, school system. A relatively large sample of children involved, careful delineation of the experimental group, and the follow-up of the children over a period of three years all added to the significance of educational findings. Test data indicated that transition room placement did result in achievement in second or third grade similar to that of regular class children.

In another study of a predominantly black population indicated that transition programs might be watered down too much and negative expectations of school personnel may contribute to the poor educational outcomes. Also found was the fact that regular teachers tested their children fifteen times more frequently than did transition teachers
and regular teachers covered almost twice as many reading lessons as did transition teachers (Gredler, 1984).

Dolan (1982) stated that transition programs have emerged based on principles regarding effective early childhood intervention. He recommended early identification and treatment programs which aim at returning at-risk children to the mainstream as soon as possible. An example of a transitional program with a small pupil/teacher ratio, individualized programs centered on the child's specific learning and emotional needs, regular consultation, special services, and opportunities for mainstreaming youngsters who showed partial or full readiness to cope in a regular classroom were suggested. Placement in the transition room was on a voluntary basis. The program had a flexible approach without an academic ceiling which enabled the transition class to accommodate children with varying language, motor, auditory, visual and social skill deficiencies. A detailed individualized treatment plan was developed. Continuous evaluation ensured that placement decisions were constantly under review. At the end of the first year, major decisions were made concerning whether students should rejoin their age cohorts in the second grade or spend an additional year in first grade. Dolan found the transition program to meet many of its objectives. Affective indices suggested that concern
regarding feelings of inadequacy and poor motivation of transition students to be unwarranted. At a time when many authorities were returning to an increased retention rate of students in the later years of schooling, Dolan recommended the transition program as a viable alternative approach to handling potential school failure.

The effectiveness of the transitional first grade experience was studied by Caggiano in 1984. Children who qualified for the transitional program and participated were compared to children who qualified but did not participate and to children who did not qualify for the program. Behavior variables were also studied. Results indicated a significant difference among the three groups in favor of the group participating in the transitional program with respect to behaviors. There was no significant difference between the participating transitional group and the non-participating transitional group. Caggiano interpreted the results to mean that students judged not ready for first grade are more likely to adjust positively and more likely to experience school success if provided sufficient time to mature, and adjusted curriculum, and acceptance without pressure. These conditions existed for the first grade students in the transitional program in this study, who were placed there according to developmental age.
Chapter Summary

A graded structure has been the typical arrangement for American schools since the mid 1800's (Ayres, 1909). This setting required every child to acquire a set amount of knowledge before being promoted to the next grade (Caswell and Forshay, 1957).

Problems began to appear when some students were unable to meet the expectations of the graded system (Cook and Claymer, 1962). Retention and social promotion were two methods used to solve these problems (Jackson, 1975; Dobbs and Neville, 1967; Dolan, 1982).

Various approaches for starting students to school have been attempted by school districts (Ames, 1965; Ammons and Goodlad, 1955; Hymes, 1964). Some of the approaches were admitting students on their birthdays which required ungraded schools, a set age for entrance, and testing for a mental age prior to admittance (Rowland and Nelson, 1969; Thier, 1967). Studies of child development grew out of concern for student achievement in school (Davis, Trimble, and Vincent, 1980; Dickson and Larson, 1963; Green and Simmons, 1962; Hedges, 1978; Wonderly, 1981; Simner, 1983). They have resulted in a wealth of information leading to support of early entrance, late entrance, and testing for intelligence quotient as well as a mental age (DiPasquale and Flewelling, 1980; King, 1955; Hamalainen, 1952; Weinstein,
Readiness for school was found to lie in the biological-maturational makeup of the child (Gesell, 1976; Ames, 1974; Gordon, 1966; Prahl, Kowalski and Heydendael, 1979; Carll and Richard, 1972; Piaget, 1953; Lavatelli, 1973).

Researchers began to look at emotional and behavioral areas of development along with the physical and mental areas (Ilg and Ames, 1965; Gesell, 1976; Ames, Gillespie and Ilg, 1979). Piaget and Gesell had similar ideas of growth in children (Piaget, 1961; Gesell, 1976). Each believed that children developed in a sequenced pattern that had stages of equilibrium and disequilibrium. As a result of Gesell's studies of child development, a developmental test was created that supported the belief of the institution that the rate of growth of a child should correspond to academic placement in order that the child may have a better chance of succeeding in school (Ilg and Ames, 1965).

at any given age in their rate of maturation and that chronological age was no guarantee that a child was ready to begin school.

Numerous readiness tests have been developed. They vary in price, in amount of time needed for a testing session, and in the number of areas of development covered by each test (Telegdy, 1975; Levenson, 1977; Barnes, 1982; Andrews, 1971; Kaufman, 1971; Kaufman and Kaufman, 1977; Dunleavy, 1981; Szasz, 1980; Popovics, 1982; Klein, 1977; and Nichta, 1982).

The practice of retention as a solution to the failure of achieving expected grade essential elements has been the focus of some studies. Some researchers emphasize the way retention is approached to a child. The way it is approached influences that child's attitude for his/her future success during the retained year (Ames and Gillespie, 1970; Chase, 1968; Scott and Ames, 1969; and Ames, 1981). Some studies recommended specific grades for retention. These studies found kindergarten, first and second to be the easiest from a child's view when his/her peers were considered as a factor of influence on the child. (Donofrio, 1977; Sandoval, 1984; Jackson, 1975; Cooper, 1980; Claflin, 1984; Hughes, 1983; and McCoy, 1983).

An alternative to grade retention is a transitional first grade setting (Zinski, 1983; Gesell, 1928; Ames,
Transitional programs have emerged based on principles regarding effective early childhood intervention for those students who are developmentally unready for academics of their present grade level.
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CHAPTER III

METHODS AND PROCEDURES FOR COLLECTING AND ANALYZING DATA

The study was designed to investigate the progress of students in a transitional first grade program in the areas of reading, math, and school attitude compared to the progress of students who qualified for the transitional program but attended regular first grade. The study was a pretest-posttest design using groups with unequal numbers of students. All students had attended the kindergarten program in the school district.

All reading level 3 students in schools where transitional first grade was to be implemented were the subjects for testing. In developing first grade classes, a readiness test was used to determine the reading levels of kindergarten students. Level 1 students were students with high reading skills; level 2 students were students with average reading skills; and level 3 students were students with low reading skills. All parents of level 3 students in schools where transitional first grade was implemented were notified by mail or phone and given the opportunity of choosing to allow their child to attend the transitional first grade or regular first grade. The teacher/pupil ratio in transitional first grade was one
to twenty. All teachers of transitional first grade had had experience teaching kindergarten and regular first grade. The students in transitional first grade were referred to as the transitional group. The transitional first grade teachers were provided with inservice training and a specially designed curriculum.

Included in this chapter is a description of the organization and implementation of the transitional program, a description of the subjects, a description of the collection of data, and analysis of data.

Organization and Implementation of Transitional First Grade Program

At the beginning of the 1985-1986 school year, a large school district located in a northeast Texas metroplex area offered a transitional first grade to students who qualified. Enrollment was offered to students who were working in a level 3 reading group at the end of their kindergarten year.

Principals were surveyed in the spring of 1985 to determine the number of kindergarten students for whom kindergarten teachers felt a transitional program would make a difference. Four principals reported concern for enough kindergarten students in their building to develop a class on each campus. Parents were notified by letter or phone requesting that they come to the school for a conference. At the conference the program was explained
and they were given the opportunity for their student to participate in the program. A minimum and maximum pupil/teacher ratio was set at 12 and 20 to 1. Decisions were made at the beginning of the school year in early September.

The transitional teachers were selected during the summer. The director of elementary operations and the consultant for kindergarten and first grade were responsible for the selection. A criteria for being considered was kindergarten certification and experience as well as experience teaching first grade. The teachers selected worked on an appropriate curriculum for the transitional classes.

When enrollment was completed, voluntary participation resulted in the establishment of only one transitional class in the district. The students in the class and those in the regular classes who qualified for the transitional program were the subjects of this study.

Subjects

The subjects were thirty-three children entering first grade (regular and transitional) in September, 1985. The students in the study were from one school where a transitional first grade class was established at the beginning of the 1985/1986 school year. In the fall of 1985 the transitional first grade class was formed.
after parents of level 3 (below grade level) students had chosen to allow their children to attend the transitional first grade. This was the transitional group.

All other level 3 students were equally divided among the regular first grade teachers. Regular teachers then randomly drew for their classes. The socio-economic status of the students was similar, and the ethnic ratio was comparable to other schools within the district.

Permission for Collecting Data

Permission was requested by the researcher to collect data for this study from the school district participating in a transitional program during the 1985-86 school year. The district's research committee reviewed the proposal submitted by the researcher and granted permission to conduct the study the first week in September, 1985. Testing was allowed to be scheduled during the district's scheduled testing times which were the first week in October, 1985 and the third week in April, 1986.

Instruction of the Groups

The curriculum for the transition first grade class was oriented toward all the senses including tactile-kinesthetic. Concentration on reading readiness was one of the major objectives. Language arts emphasized oral language development, listening skills, and auditory discrimination. Math was oriented toward concrete,
manipulative activities. Incorporated into the program were activities in science, social studies, health, music and physical education based on large motor development of the individual child. One of the other major objectives of the program was to develop a strong, positive school attitude and a positive self concept. The transitional program allowed the students freedom of movement within the classroom and heavy emphasis on oral language skills and listening skills which are prerequisites to learning to read. There was a minimum use of pencil and small crayons. Most activities centered on large motor development unless the child indicated a readiness to begin fine motor activities.

All level 3 students not in a transitional first grade were equally divided between the regular first grade teachers in the school. The teacher/pupil ratio for regular first grade was similar. The regular first grade teachers followed the state adopted curriculum for first grade, which expects the children to be ready to read. The students were referred to as the regular group. Since the majority of level 3 students were in the transitional first grade, there were fewer level 3 students in regular first grade. Therefore, the instruction was aimed toward level 1 and level 2 students with fewer readiness activities being presented in the classroom. The students were expected to do more work independently. Math was
large group instruction with some abstract math concepts. Science, social studies, health, and art were taught assuming the children were in concrete operations. Physical education was also taught assuming the children were on a higher physical developmental level.

Treatment

The students in the regular group were instructed using the state's essential elements for first grade with no special treatment. The transitional first grade group received treatment of the transitional program based on individual needs, disregarding the state's first grade essential elements.

All students were pretested in the fall, 1985, using the Iowa Test of Basic Skills (ITBS), Level 6, Form 7 and the Minnesota School Attitude Survey (MSAS). In the spring, 1986, all students were posttested using the ITBS and the MSAS. Only test scores of children who entered at the beginning of the school year and who were pretested and posttested were used in the analysis of data.

Instrumentation

The Iowa Test of Basic Skills (ITBS) was administered to each first grade class as a group. Instructions were read by the teacher while students marked choices in a machine-scorable/hand-scorable answer booklet.
Internal consistency reliability coefficients on the ITBS ranged from .75 to .96 for the six individual subtest scores. Composite reliability was .95 for Grade 1 (Buros, 1978).

There has been forty years of continuous research in curriculum, measurement procedures. Interpretation and use of test results have proven the Iowa Test of Basic Skills to be a valid test.

The test was standardized jointly with the Cognitive Abilities Test in the fall of 1978. Approximately 3,000 pupils per grade level were used to establish norms. The 1982 norms were established by retesting subsamples of approximately 1,000 pupils per grade level (Buros, 1978).

Harris reviewed the Iowa Test of Basic Skills and found it designed to provide information on the status of pupil development in the basic skill areas. The test appeared to be a useful tool to improve instruction. It was found to have been widely used in the United States for nearly forty years. The norms appeared to be truly representative of the general population; three types of which were grade equivalents, age equivalents, and standard scores. The Iowa Test of Basic Skills is a valid test when used to compare the general objectives of an instructional program to the stated objectives of the Iowa Test of Basic Skills. Harris also found reliability
coefficients on composite scores to be very high. Split-half reliabilities were reported in the .60 to .94 range for subtests of Forms five and six. Equivalent forms reliability coefficients on subtests ranged from .65 to .87. Reliability coefficients for major test areas were substantially higher, thus making summary scores more accurate and, therefore, more useful for instructional purposes (Buros, 1978).

Pyrczak had similar findings in his review of the Iowa Test of Basic Skills. Validity was determined in light of the correspondence between the instructional objectives of a given educational unit and the objectives covered by the test items. He found it to be moderately predictive with reliability estimates acceptably high (Buros, 1978).

The Minnesota School Attitude Survey (MSAS) was administered to each transitional first grade student and each regular first grade student who qualified for the transitional first grade class. As recommended by the testing firm, the researcher administered the MSAS. The students were tested in groups of four in order for there to be consistency and clarity in the administering of the test.

Three studies of test-retest reliability have been made on items on the test. The reliability for groups was quite high, with item correlation for grade level averages
rarely below .8 and usually above .9. Two studies of internal consistency were conducted on a total of approximately 6,000 students. The appropriate index of internal consistency of cluster scores was the Cronbach alpha coefficient, which was analogous to the familiar Kuder-Richardson #20 reliability for achievement tests.

The validity of MSAS is evidenced in the many uses of MSAS in published research in educational psychology. No claim was made beyond face validity (Ahlgren and Christensen, 1983).

Research Design

This study was pretest-posttest design using groups with unequal numbers of students. All students had attended the kindergarten program in the participating school district.

All reading level 3 students in schools where transitional first grade was to be implemented were the subjects for testing. In developing first grade classes, the teachers used the district's readiness test to determine the reading levels of kindergarten students. Level 1 students were students with high reading skills; level 2 students were students with average reading skills; and level 3 students were students with low reading skills. All parents of level 3 students in schools where transitional first grade was implemented
were notified by mail or phone and given the opportunity of choosing to allow their child to attend the transitional first grade or regular first grade. The teacher/pupil ratio in transitional first grade was one to twenty. All teachers of transitional first grade had had experience teaching kindergarten and regular first grade. The students in transitional first grade were referred to as the transitional group.

Data Analysis

Analysis of covariance was used to examine test differences in reading and math achievement on the Iowa Test of Basic Skills and on attitude on the Minnesota School Attitude Survey between the transitional group and the regular group. Variables of sex, age, and socio-economic status were also examined. Pretest scores on the Iowa Test of Basic Skills and on the Minnesota School Attitude Survey were used as covariates and posttest scores on these tests were used as the criterion variables.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

The Iowa Test of Basic Skills pretest and posttest scores on reading and math on the achievement of transitional first grade students and those students in regular first grade who qualified for the transitional program were analyzed. Twenty-two students were in the transitional program. One student's scores who moved out of the district were deleted from the study. Twelve students were in the regular first grade group. After pretesting was completed, one regular student moved within the district. The researcher was granted permission to posttest that student also.

Analysis of covariance was applied to each hypothesis as stated in Chapter I with the exclusion of hypothesis number three. The .05 level of significance was used to determine rejection.

Results Pertaining to Reading and Math

Hypothesis One

Hypothesis One stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of students whose parents choose to allow their
children to attend a transitional first grade class and those students whose parents choose to allow their children to attend regular first grade although they qualify for transitional first grade. When this hypothesis was tested in the null form, no significant difference was found in favor of either group as hypothesized.

The mean scores for reading for both groups are reported in Table I. Analysis of covariance results presented in Table II indicate an $F$ of 2.077 and a significance level of .16 which was not significant at the .05 level. The hypothesis was therefore retained.

### TABLE I

**MEAN SCORES FOR READING AND MATH FOR REGULAR AND TRANSITIONAL GROUPS**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Reading Mean</th>
<th>Math Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>12</td>
<td>46.83</td>
<td>20.83</td>
</tr>
<tr>
<td>Transitional</td>
<td>21</td>
<td>23.76</td>
<td>18.52</td>
</tr>
</tbody>
</table>
### TABLE II

ANALYSIS OF COVARIANCE RESULTS FOR READING SCORES OF TRANSITIONAL AND REGULAR GROUPS

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>229.79</td>
<td>1</td>
<td>229.79</td>
<td>2.07</td>
<td>.16</td>
</tr>
<tr>
<td>Residual</td>
<td>3319.06</td>
<td>30</td>
<td>110.635</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Total</td>
<td>7714.24</td>
<td>32</td>
<td>241.070</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>

Hypothesis Two

Hypothesis Two stated: There will be no significant difference in the math scores on the *Iowa Test of Basic Skills* of students whose parents choose to allow their children to attend a transitional first grade class and those students whose parents choose to allow their children to attend regular first grade although they qualify for transitional first grade.

The mean scores for math for both groups are reported in Table I. Analysis of covariance results indicated that no significant difference existed between the math scores of the two groups as shown in Table III. There was an $F$ of 1.003 and a significance level of .324 which was greater than the .05 level set for rejection. The hypothesis was therefore retained.
TABLE III
ANALYSIS OF COVARIANCE RESULTS FOR MATH SCORES OF TRANSITIONAL AND REGULAR GROUPS

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>13.479</td>
<td>1</td>
<td>13.479</td>
<td>1.003</td>
<td>.324</td>
</tr>
<tr>
<td>Residual</td>
<td>403.001</td>
<td>30</td>
<td>13.433</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Total</td>
<td>463.636</td>
<td>32</td>
<td>14.489</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>

Hypothesis Three

Hypothesis Three was stated: There will be no significant difference in the attitude scores on the Minnesota School Attitude Survey of students whose parents choose to allow their children to attend a transitional first grade class and those students whose parents choose to allow their children to attend regular first grade although they qualify for transitional first grade.

The MSAS pretest was determined to be invalid due to the late testing date approved by the school district. Had pretesting been granted for the first day of classes valid results could have been analyzed. The MSAS reported summary cluster scores for pretesting and posttesting for both groups as shown in Tables IV and clusters scores as shown in V, VI, and VII. The range of scores was one to
five. The lower the score, the more positive the attitude is toward the cluster.

TABLE IV

SCORES REPORTED FOR SUMMARY CLUSTERS FOR PRETEST AND POSTTEST RESULTS FOR REGULAR GROUP AND TRANSITIONAL GROUP

<table>
<thead>
<tr>
<th></th>
<th>I. Basic Skills</th>
<th>II. Self</th>
<th>III. School Personnel and Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>Regular</td>
<td>2.2</td>
<td>2.1</td>
<td>2.4</td>
</tr>
<tr>
<td>Transitional</td>
<td>1.6</td>
<td>1.4</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Summary Cluster I scores were obtained from cluster scores one through five as shown in Table V.
### TABLE V

Scores reported for clusters one, two, three, four and five for pretest and posttest results for both groups

<table>
<thead>
<tr>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Arithmetic</td>
<td>Other Subjects</td>
<td>Fine Arts</td>
</tr>
<tr>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>Regular</td>
<td>2.4</td>
<td>2.1</td>
</tr>
<tr>
<td>Transitional</td>
<td>1.8</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cluster 4</th>
<th>Cluster 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Activities</td>
<td>Extra Class Activities</td>
</tr>
<tr>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Regular</td>
<td>2.4</td>
</tr>
<tr>
<td>Transitional</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Summary Cluster II scores were obtained from cluster scores six, seven, and eight as shown in Table VI.
### TABLE VI

Scores reported for clusters six, seven, and eight for pretest and posttest results for both groups

<table>
<thead>
<tr>
<th>Cluster 6</th>
<th>Cluster 7</th>
<th>Cluster 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Roles</td>
<td>Autonomy</td>
<td>Self Expression</td>
</tr>
<tr>
<td>Pre</td>
<td>Post</td>
<td>Pre</td>
</tr>
<tr>
<td>Regular</td>
<td>1.6</td>
<td>1.8</td>
</tr>
<tr>
<td>Transitional</td>
<td>1.5</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Summary Cluster III scores were obtained from cluster scores nine and ten as shown in Table VII.

### TABLE VII

Scores reported for clusters nine and ten for pretest and posttest results for both groups

<table>
<thead>
<tr>
<th>Cluster 9</th>
<th>Cluster 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Personnel</td>
<td>Other Students</td>
</tr>
<tr>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Regular</td>
<td>1.9</td>
</tr>
<tr>
<td>Transitional</td>
<td>1.5</td>
</tr>
</tbody>
</table>
Hypothesis Four

Hypothesis Four was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the boys in the transitional group and the girls in the transitional group.

The mean scores for reading for males and females in the transitional group are reported in Table VIII. Analysis of covariance results indicated no significant difference existed between the reading scores of the males and females in the transitional group as shown in Table IX. There was an $F$ of .065 and a significance level of .802 which was greater than the .05 level set for rejection. The hypothesis was therefore retained.

### TABLE VIII

<table>
<thead>
<tr>
<th>Mean Scores on Reading for the Transitional Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>Girls</td>
</tr>
<tr>
<td>Boys</td>
</tr>
</tbody>
</table>
### TABLE IX

ANALYSIS OF COVARIANCE RESULTS FOR READING SCORES OF MALES AND FEMALES IN THE TRANSITIONAL GROUP

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>7.164</td>
<td>1</td>
<td>7.164</td>
<td>.065</td>
<td>.802</td>
</tr>
<tr>
<td>Residual</td>
<td>1982.863</td>
<td>18</td>
<td>110.159</td>
<td>. .</td>
<td>. .</td>
</tr>
<tr>
<td>Total</td>
<td>2105.810</td>
<td>20</td>
<td>105.290</td>
<td>. .</td>
<td>. .</td>
</tr>
</tbody>
</table>

Hypothesis Five

Hypothesis Five was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the boys in the two groups to be tested.

The mean scores for reading for boys in both groups are reported in Table X. Analysis of covariance results indicated a significant difference existed between the boys in the transitional group and the boys in the regular group as shown in Table XI. There was an $F$ of 13.344 and a significance level of .002 which was lower than the .05 level set for rejection. The hypothesis was therefore rejected.
TABLE X

MEAN SCORES FOR READING FOR BOYS IN BOTH GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Reading Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Boys</td>
<td>5</td>
<td>42.40</td>
</tr>
<tr>
<td>Transitional Boys</td>
<td>14</td>
<td>24.07</td>
</tr>
</tbody>
</table>

TABLE XI

ANALYSIS OF COVARIANCE RESULTS FOR READING SCORES OF BOYS IN THE REGULAR GROUP AND BOYS IN THE TRANSITIONAL GROUP

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>716.949</td>
<td>1</td>
<td>716.949</td>
<td>13.344</td>
<td>.002</td>
</tr>
<tr>
<td>Residual</td>
<td>859.669</td>
<td>16</td>
<td>53.729</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Total</td>
<td>2161.789</td>
<td>18</td>
<td>120.099</td>
<td>...</td>
<td>..</td>
</tr>
</tbody>
</table>

Hypothesis Six

Hypothesis Six was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the girls in the two groups to be tested.

The mean scores for reading for girls in both groups are reported in Table XII. Analysis of covariance results
indicated no significant difference existed between the girls in the transitional group and the girls in the regular group as shown in Table XIII. There was an $F$ of .551 and a significance level of .473 which was greater than the .05 level set for rejection. The hypothesis was therefore retained.

**TABLE XII**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Reading Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Girls</td>
<td>7</td>
<td>50.00</td>
</tr>
<tr>
<td>Transitional Girls</td>
<td>7</td>
<td>23.14</td>
</tr>
</tbody>
</table>

**TABLE XIII**

**ANALYSIS OF COVARIANCE RESULTS FOR READING SCORES OF GIRLS IN THE REGULAR GROUP AND GIRLS IN THE TRANSITIONAL GROUP**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>$F$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>82.395</td>
<td>1</td>
<td>82.395</td>
<td>.551</td>
<td>.473</td>
</tr>
<tr>
<td>Residual</td>
<td>1644.214</td>
<td>11</td>
<td>149.474</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Total</td>
<td>5077.429</td>
<td>13</td>
<td>390.571</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>
Hypothesis Seven

Hypothesis Seven was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the younger students who are six years old, six years one month, six years two months, and six years three months in the two groups to be tested.

When the statistics were analyzed only one student in the regular first grade group was noted as younger and five in the transitional group. Therefore, analysis of covariance could not be used for this hypothesis.

Hypothesis Eight

Hypothesis Eight was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the older students who are seven years old after September one, six years eleven months, six years ten months, and six years nine months in the two groups to be tested. The mean scores for reading for the older students in both groups are reported in Table XIV. Analysis of covariance results indicated no significant difference existed between the reading scores of the older students in the regular group and the older students in the transitional group as shown in Table XV. There was an $F$ of 1.942 and a significance level of .176 which was greater than the .05 level set for rejection. The hypothesis was therefore retained.
TABLE XIV
MEAN SCORES FOR READING FOR THE OLDER STUDENTS IN BOTH GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Reading Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>11</td>
<td>45.73</td>
</tr>
<tr>
<td>Transitional</td>
<td>16</td>
<td>24.38</td>
</tr>
</tbody>
</table>

TABLE XV
ANALYSIS OF COVARIANCE RESULTS FOR READING SCORES OF OLDER STUDENTS IN THE REGULAR GROUP AND OLDER STUDENTS IN THE TRANSITIONAL GROUP

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>146.606</td>
<td>1</td>
<td>146.606</td>
<td>1.942</td>
<td>.176</td>
</tr>
<tr>
<td>Residual</td>
<td>1812.209</td>
<td>24</td>
<td>75.509</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4953.852</td>
<td>26</td>
<td>190.533</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis Nine

Hypothesis Nine was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of the younger students in the transitional group and the older students in the transitional group.
The mean scores for reading for the younger transitional group and the older transitional group are reported in Table XVI. Analysis of covariance results indicated no significant difference existed between the younger students and older students in the transitional group as shown in Table XVII. There was an $F$ of 5.13 and a significance level of .483 which was greater than the .05 level set for rejection. The hypothesis was therefore retained.

**TABLE XVI**

**MEAN SCORES FOR READING FOR YOUNGER AND OLDER STUDENTS IN THE TRANSITIONAL GROUP**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Reading Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger</td>
<td>5</td>
<td>21.80</td>
</tr>
<tr>
<td>Older</td>
<td>16</td>
<td>24.38</td>
</tr>
</tbody>
</table>
### TABLE XVII

ANALYSIS OF COVARIANCE RESULTS FOR READING SCORES OF YOUNGER AND OLDER STUDENTS IN THE TRANSITIONAL GROUP

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>55.184</td>
<td>1</td>
<td>55.184</td>
<td>.513</td>
<td>.483</td>
</tr>
<tr>
<td>Residual</td>
<td>1934.843</td>
<td>18</td>
<td>107.491</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2105.810</td>
<td>20</td>
<td>105.290</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis Ten

Hypothesis Ten was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of low socio-economic status students with a family income of less than $1250 a month in the transitional group and in the regular group.

The mean scores for students receiving free lunch in the regular group and the transitional group are reported in Table XVIII. Analysis of covariance results indicated no significant difference existed between students in the regular group and students in the transitional group receiving free lunch as shown in Table XIX. There was an $F$ of 3.545 and a significance level of .079 which was greater than the .05 level set for rejection. The hypothesis was therefore retained.
TABLE XVIII
MEAN SCORES FOR READING FOR STUDENTS RECEIVING FREE LUNCH IN BOTH GROUPS

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Reading Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>11</td>
<td>47.73</td>
</tr>
<tr>
<td>Transitional</td>
<td>7</td>
<td>24.57</td>
</tr>
</tbody>
</table>

TABLE XIX
ANALYSIS OF COVARIANCE RESULTS FOR STUDENTS ON FREE LUNCH IN REGULAR GROUP AND TRANSITIONAL GROUP

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>448.194</td>
<td>1</td>
<td>448.194</td>
<td>3.545</td>
<td>.079</td>
</tr>
<tr>
<td>Residual</td>
<td>1896.262</td>
<td>15</td>
<td>126.417</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4253.611</td>
<td>17</td>
<td>250.212</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis Eleven

Hypothesis Eleven was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of high socio-economic status students with a family income of more than $1250 a month in the transitional group and in the regular group.
Only one student was evaluated as not receiving free lunch in the regular group. Analysis of covariance could not be used for this hypothesis.

Hypothesis Twelve

Hypothesis Twelve was stated: There will be no significant difference in the reading scores on the Iowa Test of Basic Skills of high socio-economic students and low socio-economic students in the transitional group.

The mean scores for reading for students receiving free lunch in the transitional program and students not receiving free lunch in the transitional program are reported in Table XX. Analysis of covariance results indicated no significant difference existed between students in the transitional group receiving free lunch and students who did not receive free lunch as shown in Table XXI. There was an F of .0001 and a significance level of .997 which was greater than the .05 level set for rejection. The hypothesis was therefore retained.
TABLE XX

MEAN SCORES FOR READING FOR STUDENTS IN THE TRANSITIONAL GROUP RECEIVING FREE LUNCH AND STUDENTS IN THE TRANSITIONAL GROUP NOT RECEIVING FREE LUNCH

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Reading Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Lunch</td>
<td>7</td>
<td>24.57</td>
</tr>
<tr>
<td>No Free Lunch</td>
<td>14</td>
<td>23.36</td>
</tr>
</tbody>
</table>

TABLE XXI

ANALYSIS OF COVARIANCE RESULTS FOR READING SCORES FOR STUDENTS IN TRANSITIONAL GROUP RECEIVING FREE LUNCH AND STUDENTS NOT RECEIVING FREE LUNCH

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Effects</td>
<td>.002</td>
<td>1</td>
<td>.002</td>
<td>.001</td>
<td>.997</td>
</tr>
<tr>
<td>Residual</td>
<td>1990.025</td>
<td>18</td>
<td>110.557</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2105.810</td>
<td>20</td>
<td>105.290</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chapter Summary

In Chapter IV the data was presented and analyzed both in writing and in tables. Each hypothesis was stated and statements were made as to the retaining or the rejecting of each hypothesis. Scores reported for hypothesis five indicated a significant difference in
reading achievement for boys in the regular group. All other scores resulted in no significant differences between the groups. Therefore, the transitional program proved to be as effective academically for students as a formal instructional program.
CHAPTER V

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to determine the effectiveness of a transitional first grade program by comparing students who attended the transitional first grade with students who qualified for the program but who attended regular first grade. The study was conducted in a suburban school district in northeast Texas during the 1985-1986 school year. A total of thirty-four students who attended one school made up the initial population, but this number was reduced to thirty-three due to one student moving out of the district.

The students in the transitional first grade made up the experimental group. The students who qualified for the transitional program but whose parents chose to place them in the regular first grade made up the control group.

The students were pretested for achievement in reading and math the first week of October, 1985 and were posttested the third week of April, 1986. The Iowa Test of Basic Skills, Level 6, Form 7 was the testing instrument used for this purpose.

Attitude toward school was pretested the first week in October, 1985 and posttested the third week of April,
1986 using the Minnesota School Attitude Survey. Due to the late date of the pretest, the researcher felt the attitude survey was invalid. By the second week of school a classroom climate has been established which results in the attitude of students toward school (Evertson, 1981).

The data collected from these tests was analyzed using analysis of covariance. The results obtained from this analysis of data were used as a basis for retaining or rejecting the null hypothesis. The null hypothesis was rejected if the significance level shown in the analysis of covariance was equal to or less than .05.

Findings

The findings for the study were:

1. The posttest scores for the regular group for reading, as measured by the Iowa Test of Basic Skills, was not significantly higher than the transitional group. The boys in the regular group scored higher in reading than the boys in the transitional group. The posttest scores for the regular group for math, as measured by the Iowa Test of Basic Skills, was not significantly higher than the transitional group.

2. The scores from the MSAS pretest were determined by the researcher to be invalid for analysis of covariance. This decision was based on research which reports that classroom climate is established and attitude
toward school is set toward the completion of the second week of instruction. Therefore, the scores were reported for the reader to peruse.

3. Posttest ITBS reading scores for males and females in the transitional group resulted in no significant difference.

4. Posttest ITBS reading scores for the boys in both regular and transitional groups resulted in a significant difference in favor of the regular boys.

5. Posttest ITBS reading scores for the girls in the regular group and the transitional group resulted in no significant difference.

6. Due to low numbers an analysis of covariance was not used to determine if a difference existed between ITBS reading scores for younger students in both groups.

7. There was no significant difference in the posttest ITBS reading scores for the older students in the regular group and the older students in the transitional group.

8. There was no significant difference reported between the younger and older students posttest ITBS reading scores in the transitional group.

9. No significant difference was reported from the analysis of ITBS posttest reading scores for students who were receiving free lunch in the regular group and the transitional group.
10. Due to low numbers an analysis of covariance was not used to determine if a difference existed between ITBS posttest reading scores for students not receiving free lunch in the regular group and the transitional group.

11. No significant difference was reported from the analysis of ITBS posttest reading scores for students receiving free lunch and students not receiving free lunch.

Discussion of the Findings

Reading and Math

The results reported using analysis of covariance indicated that the group of students who were in regular first grade made no statistically significant difference in achievement scores than the transitional group except in one area. The regular boys did show statistically significant higher scores in reading when compared to the reading scores of the transitional boys. The regular boys had received formal instruction in reading while the transitional boys received no formal reading instruction. Girls in the transitional program did as well as girls in the regular program even though they did not have formal instruction.

Analysis of covariance results comparing math achievement for regular students and transitional students indicated no statistically significant differences between
the two groups. No statistically significant differences between the two groups resulted from analysis of covariance for variables of age, sex, and receiving free lunch or not receiving free lunch. A program rich in an environment containing many concrete activities attained the same results in math as a formal instructional program which emphasized the essential elements of a state adopted curriculum. The literature states the advantage for the transitional students was a relaxed, less stressful environment where each student could learn at his/her own pace (Caggiano, 1984).

The fact that the regular group and the transitional group were at the same point in academic achievement except boys in reading at the end of the year would indicate the transitional program to be as effective academically for students' achievement as formal instruction. These findings are consistant with similar studies which are reported below.

Gredler (1984) reported a transitional program was of value in improving the academic performances of many students to better prepare them for regular first grade. His study in a Roseville, Minnesota, school of a transitional program indicated scores for reading achievement in favor of the transitional children. His 1984 study in an Alton, Illinois, school system resulted in test data that indicated over a three year period
transitional students achieved at the same level as students in regular classes.

Kilby (1984) studied the transitional program in Sioux Falls, South Dakota, and found similar results as this study. Although, she found reading scores on the ITBS for the transitional students to exceed students' scores who qualified for a transitional program but were in a regular program. When reading ability was held constant, reading achievement for program participants consistently kept pace with their classmates over a period of time.

Solem's (1981) study found twenty-five percent of transitional youngsters ranked in the top quartile during their regular first grade year in achievement. Fifty percent ranked in the second and third quartile.

Zinski (1983) discovered students participating in transitional programs maintained a forward progression in achievement without the experience of not being able to compete and consequently fail first grade. She stated that a transitional program allowed the student the time to grow without wasting a year in a curriculum in which they could not succeed.

**Attitude**

The Summary Cluster scores on the MSAS pretest and posttest showed that the attitudes of students in the
transitional program were more positive toward school subjects, self, and school personnel than those students in the regular program. The school district did not allow the researcher to pretest until the first week of October, 1985. Had pretesting been allowed the first day of school, a valid set of scores could have been subjected to analysis of covariance for statistical significance. The observations from ninety elementary and junior high schools have revealed the fact that establishment of classroom climate takes place in the first two weeks of school. Teachers begin the very first day to mold the structure of the classroom—the teaching—learning environment. According to Evertson (1981) this climate results in either a positive or less than positive attitude toward the learning environment. The type of environment is dependent upon the classroom management of the teacher. The first days of school are reported to be crucial to the remainder of the year.

According to the scores reported, the transitional group maintained their attitude level or improved toward a more positive attitude all year long. The transitional group had more positive attitude scores in all clusters including summary clusters than did the regular group. The gains from positive to more positive ranged from +.2 to as much as +.7. The transitional group did not regress in any cluster.
The scores reported for the regular group indicated an attitude at an average level in most clusters with a +.5 as the greatest improvement in one cluster. In four clusters the regular group regressed toward a negative attitude. The gains and regression ranged from −.2 to +.5. Regression indicates the regular students scores reflect a negative attitude for school at the conclusion of only four weeks of instruction.

Conclusions

Therefore, based on the findings that there was no significant difference between the transitional first grade students' achievement and regular first grade students' achievement except for boys in reading, it cannot be concluded that one program was any more effective than the other program. Even though the boys in regular first grade performed better in reading, there was only two months difference in their grade equivalent scores and both groups' scores indicated students were just ready to begin regular first grade.

Recommendations

Based on the findings and conclusions of this study the following recommendations are made:

1. Since the students in the transitional first grade did just as well as regular students in first grade and have not experienced failure, it is recommended that a
transitional program be offered for those students who exhibit a need to grow—mentally, physically, and or maturationally. Particularly targeted should be those students completing kindergarten and evaluated as level 3 students.

2. It is recommended that attitude testing be requested to be scheduled the first day of classes or prior to the first day if possible to insure valid attitude results.

3. A follow up study is recommended in order to determine if transitional students continue to experience positive attitudes toward school subjects, self, and school personnel and if they will begin to show gains in achievement.

4. A future study of similar programs based on achievement of the transitional students during the regular first grade year is recommended.

5. It is recommended that a longitudinal study of achievement gains for the transitional students and the students who were in regular first grade but qualified for the transitional program be conducted.
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