TRANSITIONAL FIRST GRADE: THE COMPROMISE SOLUTION?

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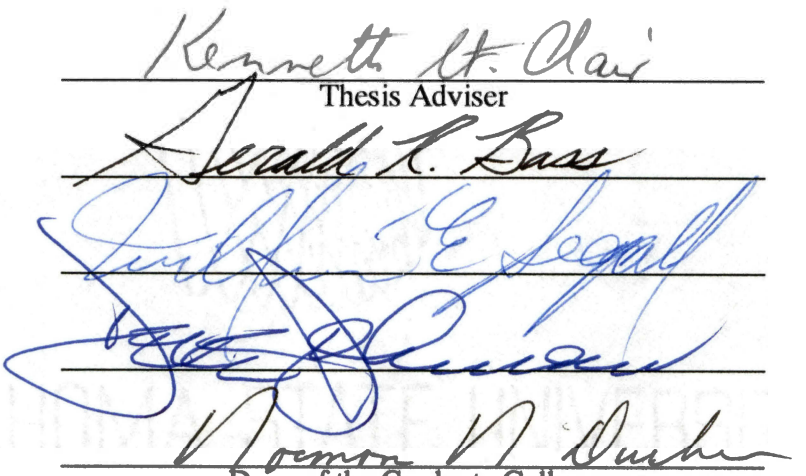

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CHAPTER I

DEFINITIONS AND STATEMENT OF THE PROBLEM

Introduction

Early childhood education in Oklahoma is currently experiencing a great deal of attention from state legislators, state education officials, and many school districts. The reason for this attention stems from the focused concern for student achievement as measured by standardized test scores. The increased push for accountability, spurred by the publication of *A Nation at Risk* (1983), has generated a new interest in the development of readiness in first graders.

> A major emphasis in these reforms has been an effort to 'tighten up' the functioning of schools through a combination of higher standards, more uniform requirements, increased accountability, and new incentives to force students and staff to work harder. States have increased curriculum requirements, improved public knowledge about student and school achievements, and added time to the school day and year (National Association of State Boards of Education, 1988, p. 2).

Nathan (1990) reports that President Bush has recently endorsed this view by proposing that by the year 2000, the nation should set the goal that all children enrolled in first grade will be ready to learn.

In order to meet this goal many states have begun to raise the school entrance age requirements so that younger and less prepared children would be kept out of kindergarten (Elkind, 1987). Most recently, however, Oklahoma has mandated through H.B. 1017 (Oklahoma State Department of Education, 1990), that all five year old children must attend kindergarten either through public or private schools.

Kindergarten programs in the past twenty years have had a dramatic impact on first grade standards. Because of the large numbers of graduating kindergartners in just the

past few years, first-grade teachers have changed the academic expectations for children entering their classrooms. It used to be an accepted fact that many children attending first grade would not know letter sounds, be able to count to ten, or cooperate with other children. First grade teachers typically had to be much more flexible with the high achieving kindergarten students on one hand and the beginning first grade students with no previous school experience on the other.

The impact of this new requirement is unknown, but if past experience serves as a guide, it is reasonable to expect that first grade expectations will again rise:

> Since all children entering first grade have been to kindergarten, they should know letter sounds, counting, and cooperation. The child who enters first grade without these academic or social skills will be regarded as deficient (Elkind, 1982, p. 174).

Shephard and Smith (1988) believe that the current curriculum expectations in many schools are not appropriate to the groups that they serve. An overemphasis on national test scores has contributed to a curriculum in which the "next grade expectations of mastery of basic skills are routinely pushed down to the previous grade" (p. 135).

Vann (1991) writes that "more and more parents want an academically-oriented kindergarten to attend to what we would expect in a first grade class" (p. 27). He found that parents who demand academic instruction in kindergarten have educated their children through preschool programs or specific home instruction hoping to see them get ahead. These parents, reflective of the accountability movement, are hard to convince that :

> rote number counting or alphabet recitation is relatively meaningless. They may turn deaf ears to research that clearly indicates that children who are taught to read in kindergarten have no significant advantage over their peers by the end of second grade (p. 28).

As a result, Vann (1991) believes that parents do not want to hear that their child may not be ready to learn academically: "They don't want to hear that their child does not have the fine muscle coordination to hold a pencil, or that auditory and visual memory skills need time to develop to a level conducive to learning" (p. 28).

Elkind (1987) writes that the main concern of parents used to be that their child was normal or average when compared to other children. Today's parents seem to insist that their children excel in everything. While he acknowledges that parents *are* concerned with their child's mental health, he thinks that they "believe that exceptional early academic achievement will enhance their children's self-esteem and self-confidence and give them a 'leg up' on the competition" (p. 29). The result is a generation of highly competitive parents who insist that their children learn academic skills as early as possible regardless of their developmental readiness to learn.

As a result, many children simply cannot keep up with the increased expectations. According to White (1991), "a child who is not ready for first grade can expect to experience substantial difficulty in elementary school" (p. 9). Those not ready for the academics of first grade usually end up repeating kindergarten, attending a transitional class, or being identified as having a special education handicapping condition. The National Association of State Boards of Education (1988) writes that, "When academic work is introduced too early, some children will inevitably 'fail' due to high variability of rates of development. They will feel incompetent and distrustful of their ability to cope with a school setting" (p. 4).

With the increasing numbers of children experiencing first grade or kindergarten failure, educators have just recently begun to ask why.

Developmental Readiness

Zill and Wolpow (1991) believe that being ready to learn means that a child has the abilities necessary to become a successful first grader. The ready child will be able to cope successfully with first grade curriculum and the social demands of the elementary school. Included in the readiness concept is a basic proficiency in the English language and the "attainment of sufficient social and emotional maturity for coping with the challenges that grade school possesses" (p. 14). These challenges include; the child's

ability to be away from the parents without undue anxiety, the ability to pay attention to what the teacher is saying or doing, to sit still for more than a few minutes, and the ability to get along with other children.

An understanding of school readiness starts with an understanding of how children develop. Garbarino (1989), believes that, "to approach the child's learning from a developmental point of view is to recognize children's changing capacities" (p. 30). Instead of expecting all five year old children to have acquired the same developmental skills, the developmental approach to readiness exalts the individual nature of each child's learning capacities and expects differences among children.

Piaget (1950) has provided useful research on this issue. Central to his discussion of how children learn is the notion that children construct knowledge internally. In contrast, the approaches being emphasized in the latest reform efforts (academic and traditional teaching approaches) reflect the view that children learn knowledge externally. In this view, learning is a scientific process. Students learn by acquiring knowledge through small manageable pieces.

Piaget, however, believes that children learn by experiencing the world and constructing their own learning methodology. The acquisition of language serves as a good example. Two to four year old children learn the meanings of words without much direct assistance from external sources.

Social-conventional knowledge gained in school has its place, however. Agreed on social concepts are necessary facts that, according to the belief of many persons, all members of our society need to know. As Strauss (1991) writes,

> the Fahrenheit scale informs us that ice freezes at 32 degrees, while the Celsius scale names the freezing point zero. It would be impossible for each generation of learners to construct this type of knowledge from direct, personal experience; instead its origin is in the social experiences that occur in school (p. 21).

Statement of the Problem

Each year elementary schools across Oklahoma encounter the problem of how to improve the potential for success for their district's first grade students. The typical class of six-year-old children comes to first grade with a wide range of abilities, skills, self-esteem, and even age (by birth month). The traditional method of enrolling all six-year-old children in first grade has come under fire because of the variance in these areas. As a result, many of the children experiencing difficulty handling the academic regimen of first grade have been retained in grade after failing what should be an encouraging and enlightening introduction to the world of school learning. These retentions hurt academically, socially, and emotionally.

While the realities of this situation are frustrating, an understanding of what is happening to these children is needed. A solution is required that would address the societal need for increased academic achievement and at the same time, nurture the child's individual developmental needs. One program that has evolved as a result of this need is the developmental or transitional first grade. This class features differentiated educational practices targeted specifically for the developmentally delayed 6 year old child.

To implement these programs, the schools examined in this study have begun to identify the behavioral characteristics of developmentally delayed children that create and promote the low self-esteem associated with developmental unreadiness. These schools have also begun to address the problem of early childhood retention through the development of sound procedures and policies for selecting early childhood candidates for developmental classes. In addition, many schools are also now taking on the task of educating parents of developmentally delayed 6 year old children about developmental readiness and school success.

The schools in this study have begun to address these concerns through the implementation of transitional first grade programs for children judged not ready for first grade. These programs are popular with teachers, administrators, and parents because of

the perceived benefits of increased academic achievement in later years, better self-concepts for developmentally delayed students, and a higher level of satisfaction among parents.

Unfortunately, these programs have not been evaluated to determine if they are indeed making a difference. If it could be shown that these programs are not significantly better than promotion to first grade, then the studied schools may need to discontinue their use. The revenues and resources could then be redistributed for new methods and approaches which might better serve these students. On the other hand, if they are helping students these programs must be further supported and made readily available to all who need them.

Elementary school administrators in these schools have for years been faced with the awesome task of making the decision as to who should be recommended for transitional placement and who should not. In effect, one year of a child's life is in the hands of a school principal who many times has little more to go on than the kindergarten teacher's recommendation and the birth record.

The problem, therefore, is to determine whether the transitional first grade programs of the school districts participating in this study are effective in meeting the needs of the students enrolled in such programs. Due to the studies already conducted on this question which point to the conclusion that transitional programs are not effective, the need for research in the studied schools was deemed a high priority. It was felt that such a study would enable the administrators in the studied schools to make more informed decisions about placements of developmentally delayed students. It is hoped that this information will be used as a reference by administrators, counselors, and parents when making educational decisions concerning children identified as developmentally delayed.

Transitional First Grade: The Compromise Solution

The transitional class is a response to the reality that, for whatever reason, many students graduating from kindergarten are not ready for first grade. The implication is that the transition between kindergarten and first grade is presently creating significant problems for many elementary students.

The most frequently used method to address unready kindergartners has been retention. Six-year-olds have either been retained in kindergarten or promoted to first grade and retained there. Those not retained have been tracked into a low ability homogeneous grouping of some sort which has proved extremely difficult to escape. Indeed, White (1991) reports that six-year-olds who consistently score poorly in language and higher mental abilities inevitably fall further behind in each of their succeeding elementary years. He notes that the lack of readiness is very difficult to overcome.

The transitional first grade is seen by the administrators of schools who offer such programs as a compromise solution. Because transitional programs are developed with differentiated curriculum goals and teaching methodologies, they offer more than repeating either kindergarten or first grade. They allow schools to provide an additional year for children with developmental delays and still promote them to a higher grade level than kindergarten which is more acceptable to the child's parent.

According to the National Association for the Education of Young Children (1986), the developmentally appropriate teaching methods used in developmental classes are, or should be, radically different than the traditional teaching methods employed in many first grades. For instance, developmental programs like those associated with developmental or transitional first grades emphasize the importance of learning in all developmental areas —physical, social, emotional, and intellectual. Each child is viewed as a unique person with "an individual pattern and timing of growth and development" (p. 23). Teachers expect differences in levels of ability and learning styles, and design a curriculum that

addresses each child's unique needs. Interactions with children emphasize the child's self-esteem and positive feelings toward learning.

The teachers of developmental programs prepare their classrooms for a lot of movement and activity. Active exploration is encouraged though "hands on" approaches. Children choose from a wealth of learning activities including dramatic play, blocks, science centers, math activities, games and puzzles, books, recordings, and music.

The teacher accepts that there is often more than one correct answer and organizes the class through subjective evaluation techniques. An overriding concern is that children self-direct their own learning experiences. The teacher is not the source of knowledge, but a facilitator and helpmate.

The traditional academic approach stands in contrast to these strategies. In most first grades, the learning experiences of the child are narrowly focused on intellectual development. Children are measured against some predetermined norm or against themselves which encourages competition among students. In many ways, the child's worth is measured "by how well they conform to rigid expectations and perform on standardized tests" (National Association for the Education of Young Children, 1986, p. 23).

Teachers use structured teacher-directed instructional methods which emphasize student writing assignments and rote learning. The teacher directs all learning activities through a precisely described methodology that first introduces the concept to be learned and then presents it to the class. The teacher then models certain desired skills, provides practice opportunities—both guided and independent, and closes the lesson with the day's objective (Oklahoma State Department of Education, 1989).

The class is organized with students seated at desks in rows or some other configuration which constrains active cooperative learning techniques. Large group instruction is most frequently used. Work sheets, dittos, flash cards, and other forms of teacher-directed activity are predominant. Children are expected to complete the work

sheet in a specified time period and then return it to the teacher who evaluates it for correctness. Usually, only one correct answer is accepted.

According to Gilroy (1990), the percentage of kindergartners not ready for the academic approach of first grade varies greatly from district to district (6 to 35%). One possible explanation as to why the percentages vary is the selection process. Available space and budget concerns may also be significant factors. Additionally, the increasing demand among some teacher groups for more homogeneous groupings (spurred by increased accountability for achievement results) may also be a reason why T-1 program numbers vary.

Ostrowski's Rhode Island study (1988) detailed the current rapid acceptance of transitional programs. In 1977 there were no transitional programs in Rhode Island, a decade later 60% of the schools in the state incorporated some kind of transition program. Eleven of the fifteen districts without a transitional program in 1988 were considering adding the programs in the future.

Purpose of the Study

Many of the studies conducted on the merits of transitional programs have been disappointing. It is obvious that many practitioners view these programs favorably or else there would not be a rise in their popularity. However, much debate exists over the effectiveness of these programs. The National Association for the Education of Young Children (1991) takes the position that:

> a transitional year between kindergarten and first grade, or retaining children in preschool, kindergarten, or first grade (as many as 20 to 30% in some districts), are all veiled attempts to obtain an older, more capable cohort of children in each grade level. These strategies reveal the fact that current curriculum expectations do not match the developmental level of the children for when the grade is intended. In effect, these strategies blame the victims, the children, rather than confronting the real problem—an inappropriate curriculum (p. 22).

Elkind (1987) agreed. He noted that transitional programs were created to avoid the stigma of being retained in kindergarten. He quoted Shephard and Smith (1986), as saying:

> Despite the promises, providing an extra year before first grade does not solve the problem it was intended to solve. Children in these programs show virtually no advantage over equally at-risk children who have not had the extra year. Furthermore, there is often an emotional cost associated with staying back, even when parents and teachers are very enlightened about presenting the decision to the child (p. 86).

The problem is that, regardless of this research, the schools participating in this study employ the use of transitional or developmental first grade programs. The purpose of the current study is to determine if the transitional programs in place during the 1988-89 school year in the studied schools were effective in terms of academic achievement, self-concept, and parent satisfaction.

Additionally, it will compare certain variables among developmentally delayed children. The variables compared will attempt to explain why some studied children performed better on their first grade achievement test. It is assumed that even in successful programs, some children identified as not ready for first grade will not be successful in the transitional program and in years subsequent. Therefore, an attempt to find, identify and describe certain variables which might suggest success in T-l programs is an important part of this study .

Important research questions answered were:

1. Did the students that attended a transitional program in the studied schools during the 1988-89 school year have higher achievement as first graders than those referred for such programs but who did not go?
2. Did attendance in a preschool for at least six months prior to kindergarten, make any difference in achievement test scores for transitional first grade students or those referred to T-l service?

3. Did the child's family's income level make a difference in achievement test scores for transitional first grade students or those referred to T-l service?
4. Did the child's chronological age make a difference in achievement test scores for transitional first grade students or those referred for T-l service?
5. Did the child's race make a difference in achievement test scores for transitional first grade students or those referred for T-l service?
6. Did the a child's gender make a difference in achievement test scores for transitional first grade students or those referred for T-l service?

In addition, the parents' marital status and whether the child attended a baby-sitter or day care for the majority of their childhood was examined to determine if any differences in achievement tests scores could be found.

Important hypotheses to be tested are:

1. There were no significant differences in levels of self-esteem for students attending transitional first grade programs and students recommended for T-1 but who were promoted to first grade.
2. There were no significant differences in parent satisfaction levels for parents of students that attended transitional first grade programs and parents of students recommended for T-1 but were promoted to first grade.

Limitations of the Study

This study involved *ex post facto* research for the most part. Participating students had already received the treatment (transitional first grade placement) or had been a part of the control group. Because the main concern for parents of these children is achieving the best possible education for their child, experimental research is very difficult. Random assignment to transitional classes (for developmentally delayed children) disregards parents' concerns for their child's education. Because the treatment (transitional programs) involves a year of a young child's life, it would be inappropriate to assign

children randomly to one class or another without consideration of what is in their educational best interest.

As a result, according to Huck (1974), the researcher

> cannot be certain that the two groups are equivalent unless the subjects are randomly assigned to the treatment and control groups, thus giving each subject an equal chance of being in each group. Selection becomes a problem whenever subjects who seek exposure to the treatment are compared with subjects who do not seek exposure. Significant differences resulting from a study could be the consequence of non equivalent groups rather than the treatment or independent variable (p. 240).

Whenever selection is a threat, history and maturation also become possible sources of invalidity because the researcher cannot be sure that both groups are exposed to the same events and have the same maturational processes (Huck, 1974). The life experiences of the studied subjects may influence the results.

Regression was probably not a threat to validity in this design since the students studied were not selected due to low scores of one kind or another. In addition, testing and instrumentation should not be problems for this design because the subjects were not tested twice. Mortality, however, was a threat due to the numbers of children that dropped out of the study.

Because all students identified as a part of this study were included in the achievement test observation, descriptive statistics were used. The scores describe all students either attending a transitional first grade program or all students referred for such a program due to their developmental delay but who refused service. Several demographic characteristics were compared by the students' achievement results. Because only 57% of the total number of students studied returned the demographic information, inferential statistical procedures were used to compare the experimental and control groups.

The Parent Satisfaction observation was a survey sent to all students either attending a T-1 class or referred to such a class during the 1988-89 school year. Only a percentage

(57%) of the parents of the students returned the survey. Therefore, random selection of parent satisfaction scores was not possible and is a threat to the study's external validity.

Students observed through the Self-Concept Adjective Checklist were randomly selected from the identified students in the study. Therefore, these results may be generalized back to the target population which is the group of students attending a transitional program or referred for such service.

Definitions of Terms

The following are terms which were used in this study:

Developmental Readiness. Refers to the skills children possess that enable them to learn academic subject matter in a structured traditional classroom setting. Developmental skills include; short-term and long-term memories, fine motor skills, gross motor skills, the ability to follow simple directions, the ability to sit still for more than few minutes, attention span, etc. Children possessing these skills are thought to be developmentally ready to learn (Carll & Richards, 1977).

Developmental Age. An age designation for the child in terms of his/her developmental readiness to learn. Categorical norms have been established which designate certain developmental ages for particular developmental skills. Developmental ages are the ages at which children possess certain developmental characteristics based on the averages of normal children (Carll & Richards, 1977).

Developmental Learning Rate. The rate at which children learn or possess developmental abilities. Each learning rate is unique to each individual (Ames, Gillispie, & Streff, 1972).

Developmental Delay. Refers to the delay in achieving readiness that some children experience (Ames, Gillispie, & Streff, 1972).

Developmental Unreadiness. Refers to the unreadiness to learn academic skills that some children experience (Ames, Gillispie, & Streff, 1972).

Developmental Curriculum. A curriculum designed to develop "children's knowledge and skills in all developmental areas—physical, social, emotional, and intellectual—and to help children learn how to lean—to establish a foundation for life long learning" (National Association for the Education of the Young Child, 1988, 69).

Developmentalist. A person that promotes developmental, teaching strategies (Bredekamp, 1987).

Developmental First Grade. Refers to Transitional first grade programs (Oklahoma State Department of Education, 1987).

Transitional First Grade(T-1) Refers to the differentiated educational programs designed to serve children with developmental delays. The programs are designed to provide extra time for children to develop more skills (Gredler, 1984).

Self-esteem. Refers to the way a child perceives himself. Positive self-esteem is the belief that one is valued, important, and realistic about his or her capabilities and potentialities. Negative self-esteem refers to the belief that one is not valuable or not important (Finlayson, 1975).

Self-concept. Refers to self-esteem (Finlayson, 1975).

Retention. The practice of repeating a grade or providing an additional year of instruction for developmental delayed children (Dawson & Raforth, 1991).

At-Risk. This term refers to students who are at-risk of failing a later grade due to their developmental unreadiness to learn (King, 1984).

Mainstreamed. This term refers to the procedure for promoting developmentally delayed children to a first grade classroom (King, 1984).

Assumptions of the Study

This study assumed that all children referred for transitional first grade placement were referred based on their developmental delay. It was assumed that the transitional first grade programs studied properly implemented the developmental first curriculum

described in the Oklahoma Suggested Learner Outcomes (1989). Also, it was assumed that all respondents answered honestly and to the best of their ability.

Scope

The scope of this study included:

1. Only those students identified by their kindergarten teacher as being developmentally delayed.
2. Only those students identified during the 1987-88 or 1988-89 school years in the schools included in the study.

CHAPTER II

REVIEW OF THE LITERATURE

A major concern for Oklahoma educators in the 1990s is the increasing demand among Oklahoma communities for superior academic achievement on the part of all students. In recent months, new legislation has been introduced which emphasizes, among other things, increased accountability for student achievement test scores. Additionally, an emphasis on early childhood education is seen as a means to improve academic achievement. The assumption seems to be that by giving our youngest children a solid start we can improve education from the ground up.

The "new" thinking in Oklahoma, typified by legislation enacted in 1990, stresses academic achievement as the most important indicator of success. If one must accept this measure of success, an in depth analysis of kindergarten and first grade learning characteristics needs to be undertaken to determine the most effective means to increase student achievement.

Understanding Developmental Readiness

One idea under current research in understanding how young children learn is the notion of developmental readiness. This approach stresses the difference between a child's chronological age and his developmental age.

For years the practice of enrolling children in school by age six has been questioned by those studying this issue. It is suggested by Monroe (1985) that the age of six was chosen as the appropriate enrollment age because it was at that point that "children were

considered mature enough to leave home for the first time and travel the necessary distance to school" (p. 6).

A child's developmental age is defined by Carll & Richards (1977) as, "the age at which a child is behaving as a total organism" (p. 3). The key word in this definition is total, suggesting that a child needs emotional, social, physical, and psychological growth in addition to intellectual growth in order to be considered developmentally ready to learn. Each year in Oklahoma schools, a certain percentage of six-year-olds is judged not ready for the first grade. Gilroy (1990) reported that "one in four kindergartners" in Tulsa County would not be ready for first grade. Most of these children have already attended kindergarten and have experienced difficulty in mastering the fundamental concepts necessary for success in first grade. Their problems cannot be explained by any indication of brain damage, perceptual handicaps, emotional disturbance, or abnormally low intelligence.

These students are characterized as having difficulties socializing with their classmates and as being easily fatigued in school. They frequently complain that their work is too hard. They seem less able to sit quietly and concentrate. In addition they are less able to follow directions, less able to work neatly, more likely to experience emotional disturbances, more likely to be rejected by classmates, and less ready to learn academic skills (Carll & Richards, 1977).

In a study conducted by Ames, Gillespie, and Streff (1972), the effects of overplacement (being in a school situation which causes strain to the organism) are examined. Dislike for school, frequent student complaints that classwork is too hard, difficulty in finishing work, fatigue, and a marked difference in behavior during the summer months were problems associated with developmental delay. In addition, trouble getting ready for school each morning, physical complaints, quarrelsome behavior, an

unexplained lack of academic ability, a preference for younger friends, and discipline problems were also characteristic of children judged not ready for first grade.

The Developmental Learning Rate

The readiness of a child to achieve in the first grade is generally thought to be directly related to the child's developmental learning rate. Most of the academic differences that exist between first graders are due to the differences in their learning rates.

Each child's learning rate is extremely unique. Some children, for example, learn to crawl at four months, some at six to eight months, and some never crawl at all. In much the same way, children learn to walk or talk according to their own developmental rate. Just as a child crawls when it is ready, or talks when it is ready, a child also learns academic course work when it is ready. While averages of ability levels can be identified for six-year-olds in general, it is understood that not all six year old children will have the same developmental readiness to learn school subject matter (Bredekamp, 1987).

Clarizo et al. (1981) report similar findings for kindergartners. They quote Zikes as saying:

> Only about 25 percent of children in Kindergarten have reached a neurological maturity to cope with the symbolization necessary for reading. The eye may be ready to receive the visual image but for more than 75 percent of the children, the neurological system has not reached the maturity needed to make connections between what they see and what they understand. There is nothing that can be done to speed up this readiness—only time can do this (p. 28).

Brain Myelination

The process of myelination helps to explain why some children cannot learn as fast as others. Sinatra (1983) says that myelination is a process of nerve fiber maturation in the brain which enables the two hemispheres of the brain to achieve "coordinated balance

of verbal and non-verbal proficiency through the maturation of the corpus callosum and other important fiber systems which extend from the region of the brain stem to the cortex" (p. 45):

> Myelination is the development of a fatty sheath around the nerve fibers, particularly the nerve axons. The axons conduct impulses from the cell body to thread-like projections called dendrites which transmit the coded message to adjoining cell bodies. The myelin sheath acts to facilitate electrical transmission through the neuron.
>
> The axonal fiber is insulated just as an electrical cord is insulated for the transmission of electricity. Yakulev and Lecours have indicated that myelination of these horizontal and vertically arranged fiber systems is hardly noticeable until about two years of age. Then the corpus callosum and other commissures between the two hemispheres myelinate rapidly from two until seven years of age.
>
> By 18 to 20 months, the myelination process in some children will have been complete in some areas of the cortex so the child will have gained sufficient perception from what has been said or heard to begin to talk. Other children take longer for this process to be completed which delays speech. In the same way, this same process influences the growth rate of every important component of learning (p. 46).

It is important to understand that while the myelination process in some children does not complete as rapidly as others, it does occur in every child sooner or later. An important consideration in understanding why some children do not achieve as well as others then, is that some children are not as developmentally ready to learn as others and need more time and special attention through differentiated instruction that addresses the child's developmental need.

Scott and Ames (1969) point out that immaturity may be the result of sheer youngness. A child may be chronologically younger than his classmates, causing him to have a hard time learning on an equal basis. Indeed, in most first grade classes, an eleven-month variance in age is possible. Most in the field agree that those born in the summer months have a significantly higher risk of developmental unreadiness or delay than those born from September to May.

Late-birthday children who are retained or held out of school for a year may in fact do better initially than those enrolled in first grade at the prescribed age according to Dawson and Raforth (1991). But longitudinal studies reveal that the gains do not last over time. Furthermore, the extra year does not always seem to solve the immaturity problem. Dawson and Raforth postulate that it may be that the characteristics normally attributed to immaturity (short attention span, distractability, etc.) are actually personality traits which cannot be corrected.

Gender is also regarded as a significant factor for explaining developmental delays. In a study conducted by Spillman and Lutz (1980), significant differences were found between male and female kindergartners in motor coordination, visual motor performance, visual perception, auditory perception, auditory memory, language development, and conceptual language.

Fagot's (1973) study found that in three separate classroom observations, teachers appeared to instruct girls more than boys. They tended to answer girls' questions more often and gave girls more favorable comments. The Miller (1975) study confirmed these results and added that girls received twice as much drill from teachers as boys. The Spillman and Lutz (1980) study suggests that an interaction may exist between gender and age of kindergartners and first graders with regard to developmental readiness. Male children born in June, July, or August may have significantly higher risks of developmental delays.

In a study conducted by Mayfield (1980), it was reported that teachers of first grade children experiencing difficulty in making the transition from kindergarten to first grade believed that their students' problems were due to three causes:

> Nearly half the Grade one teachers (45%) and Kindergarten teachers (43%) thought the reason for their difficulty was 'Immaturity,' often as a result of late (i.e., October-December) birthdays. None of the parents and only 4-1/2% of the principal's suggested late birthdays or immaturity as the reason. The pattern of principals' responses was an equal split (32%) between 'Health

> Reasons' and 'General Readiness.' The third area of difficulty was given by 50% of the parents (N=22) who reported that their child had difficulty making the K-1 transition because of the increase of expectations for children in Grade One (p. 278).

In Mayfield's (1980) study, the differences between male and female children with regard to first grade readiness were examined. A significantly higher percentage of boys had difficulty making the transition from kindergarten to grade one. The pattern was similar to one found by Conway (1968) who studied the Vancouver and Greater Victoria School districts. In that study it was found that teachers generally believed that "well-adapted pupils" were usually girls and that "poorly-adapted pupils" were usually boys.

Alternative Solutions: Dealing With Developmental Readiness

Currently known methods to deal with developmentally delayed children are limited. Most schools choose either to retain the child in kindergarten or later in the early elementary years or promote the child to the next grade level disregarding the child's developmental delay. Special education placement has also been commonplace for many schools due largely to a misunderstanding of the students' developmental delay.

A program being increasingly used to help prevent developmental delays in children is the publicly supported preschool. Head Start, the Perry Preschool project, and other publicly funded preschools have provided pro-active help for at risk children—especially those from low incomes and minority groups. Lazar and Darlington et al. (1982) found that children who were enrolled in early childhood programs (preschools) were more successful in later years than students who had not attended a preschool:

> They were significantly less likely to be enrolled in special or remedial classes or to be retained in grade than were the controls, and they were significantly more likely to graduate from high school and to enroll in post secondary education programs (p 9).

A principal benefit in addition to academic achievement is the effect preschool programs have on the child's family. Parents begin to believe that their child can achieve

in school. Lazar and Darlington (1982) cite the Minnesota Early Childhood Family Education Program as an example of a program that changed parental values and expectations. The program focuses on parents as the primary educators of their children and educates them in the ways they can help their children become ready for public school.

Powell (1986) found that the kind of preschool a child attends affects, in important ways, the kinds of successful school experiences the child has all through their middle-school and early teenage years. "Boys who were enrolled in a nondidactic preschool program were superior in school achievement to boys who had been enrolled in a didactic preschool program" (p 62). In a study of 13 Head Start classrooms, Huston-Stein et al. (1977) found that children who attended a preschool where a high level of teacher-directed activities was used had less pro-social behavior and imaginative play. They were also less aggressive than children in classrooms with a lower level of adult control.

Head Start, perhaps the most popular of all early childhood approaches, has been a politically charged program for years. The political turmoil has made it difficult to evaluate. However, according to White (1991), "The most substantial evidence of Head Start's success comes from one study in Ypsiliti, Michigan, where 57 three- to five-year-olds from low-income families were enrolled in the Perry Preschool Project" (p. 10).

The project has been under study for at least the last 15 years. The Perry children have performed much better in school than they would have if they had not attended. However, the program success was limited. One-third of the children did not graduate from high school. In addition, most Head Start programs today do not resemble the Perry Preschool Project, so comparisons between the programs are difficult. Although more research is needed, White (1991) concluded that Head Start probably has little or no lasting educational effect on the typical young child from a poor family.

Green (1991) disagrees. He cites a recent listing of Head Start's achievements, prepared by the Children's Defense Fund. Among the data presented:

1. Over 90 percent of all Head Start families live below the federal poverty line, and most are headed by a single parent.
2. In 1989, 452,000 children were enrolled in full-year programs—about 20 percent of those eligible.
3. More than 20 percent of Head Start's 1990 enrollment was currently made up of Hispanic children, compared to 38 percent black and 33 percent white.
4. Follow-up studies show that Head Start children were more likely to meet the basic requirements for school readiness and achievement than similar children who were not enrolled, and that they are less likely to be retained or placed in special education classes.

Increasingly, however, schools in Oklahoma have begun to implement developmentally-oriented transitional first grade programs which are intended to be neither retention nor promotion. Retention is seen as negative to student self- esteem and academic progress according to most researchers.

Retention as an Alternative

Donofrio (1977) saw retentions as necessary due to individual biological or social childhood circumstances. He found, for instance, that male children born late in the school year, who had poor verbal abilities, I.Q.s in the 80s or 90s, and who were hyperkinetic, were destined for failure when schools disregarded the developmental processes at work within these children. As a result, he believed that retentions were beneficial for these children.

Donofrio (1977) states that proponents of retention believe that:

> Students who do not understand the material at one grade level will find it difficult or impossible to benefit from material at the next level. Retention gives slow or maladjusted students time to come up to grade level and reduces the range of abilities within each grade. Retention is also seen by many educators as an appropriate remedy for students who are immature (p. 350).

They further believe that the "blue sky solution" to provide an individualized developmental curriculum for each child, who will then proceed from kindergarten to high school graduation in exactly 13 years is nonsense (Grant, 1990). The implication is that most schools cannot and will not support this idea. Not only would such a design be extremely expensive (requiring much smaller class size), and politically difficult (due to the increasing demands of the public for high achievement as demonstrated through test scores), it may well be academically impossible.

Most studies conducted on the subject of retention in fact show that retained students do not achieve more or struggle less in first grade. Godfrey's seven-year study involving 12,000 pupils (1970) indicated that the "overwhelming majority of the studies reveal that not only is retention of no benefit to the child, but often it is harmful" (p. 17). Norton (1983) found that "children do not learn more by repeating a grade in elementary school" (p. 28). In fact, he found they often learn less than those who are promoted in spite of low achievement.

Raygor's (1972) study investigated the progress of kindergartners in Minnesota. Thirty kindergartners recommended for retention but whose parents refused were compared to 25 kindergartners who were retained. The results indicated no differences for overall achievement, arithmetic achievement, and language achievement between retained kindergartners and those promoted when compared as fourth graders. When the promoted kindergartners were compared with a random sample of regular fourth graders, only two of ten subtests from the Stanford Achievement test results were significantly different in favor of the regular fourth graders. Raygor (1972) comments on these

findings by stating: "The results suggest that, if supplemental services had been available to this group, they might have been able to compete with their peers more successfully" (p. 137).

In addition to findings that students do not benefit academically from retention, many studies indicate that serious self-esteem problems may also arise. A child's positive self-image is probably the single most important ingredient for success in school. Landsberger et al. (1982) state that a cycle of failure has been set in motion when students are retained. Because a student's beliefs about himself affect every aspect of behavior and learning, a failure in the first attempt at education becomes devastating for most children.

Milland (1978) studied the relationship between a student's self-esteem and reading success. The purpose of the study was to see if self-concept was a predictor of reading success. He found that children with low self-concepts did not learn to read as well as these with high self-concepts. Plummer, Lineberger, and Graziano (1986) also concluded that damage to the child's self-image was an important reason for not using retentions. In their study they found that retained children were rejected and discriminated against by their peers.

Some studies indicate, however, that retention may not have negative consequences for self-esteem. A study conducted by Finlayson (1977) found that, "Retained pupils actually increased their self-concept when compared to those promoted or borderline students." The student's gain was due, "perhaps because they felt more competent within a familiar environment" (p. 43).

Research has been conducted which sorts out the various reasons for retention and examines the self-concept implications for each of the sorted reasons. The Chase study (1968) sorted 65 first, second, and third grade students who were recommended for retention for immaturity only. Findings indicated that when children were retained because of immaturity alone, they experienced no negative social or emotional effects.

Teachers interviewed reported that the retentions met the needs of seventy-five percent of these children and had produced no ill effect on the self-concepts in seventy-five percent of them.

Ninety-five percent of the parents surveyed were in favor of the retentions, stating that their children enjoyed school much better than they had the year previous. Parents reported that their children felt more confident and successful, were happier, easier to live with at home, and were getting along better with their friends after they had repeated.

Scott and Ames (1969) undertook a study which would determine the effects of retention when done for developmental immaturity alone. Significant improvement in student attitudes was seen for students who were retained for this reason. Improved areas reported by teachers and parents were general attitudes toward school, attitudes toward school work, getting along with schoolmates, lessening of fatigue, getting ready for school in the morning, and in establishing a sense of responsibility. They concluded that:

> Research, even the most negative, does not necessarily prove that repeating is either useless or harmful. Repeating is not a panacea, even though in many schools it has been used as such. There is no reason to expect that repeating a grade will make success possible for the child who is emotionally disturbed, brain damaged, or perceptually handicapped. Though going at a slower rate will reduce the pressure and thus make things easier for any school child who is having difficulty, it should not be expected to cure all school problems. All that repeating can reasonably be expected to do is to provide extra time needed because of immaturity and subsequent unreadiness for the work of a grade in question (1969, p. 26).

Promotion as an Alternative

The obvious alternative to retaining children judged not ready for first grade is promotion. Proponents of promotion (Donofrio, 1977; Finlayson, 1975; Bredekamp, 1987; Cazden, 1981; Genishi, 1987; Schnickedanz, 1986) argue that schools should already be providing developmentally appropriate first grade settings in a non-graded structure. They contend that if students were instructed in the proper developmental

environment, they would not experience the typical symptoms associated with developmentally delayed children in the regular class (fatigue, behavior problems, short attention span, etc.).

Community expectations have risen so high in recent years that kindergarten classrooms no longer resemble the kindergartens of years past, but instead look more and more like mini-first grades. The attention given to national reports on education, such as *A Nation at Risk* (National Commission on Educational Excellence, 1983), and others, has created an unfounded urgency to push the 5 year old child to learn more than ever before. The logic is that by increasing kindergarten outcomes, all other grade outcomes will be increased. Developmentalists argue that educators should resist the inappropriate academic demands and create instead a non-graded, individualized program of instruction that centers on the child and his/her needs (Bredekamp, 1987).

A major component of this curriculum is that children should learn primarily through learning centers, where each child may pick and choose what he or she wants to learn at their own pace, in their own time. Several studies confirming the advantages of such an approach have been undertaken. The Leinhardt study (1980) found that minority students who had been recommended for retention or promotion to a T-1 program but who were promoted to first grade instead, performed better than students who were retained when given special individualized instruction in reading. The integrated curriculum also outperformed that of transitional first grade students in reading. Leinhardt believes that the specialized instructional materials and the integration into the regular classroom made the difference.

The research on retention, developmentalists argue, shows that retaining students is not the answer (Ogletree, 1972). While promotion has not shown higher achievement results than retention, the results do appear to be roughly equivalent. With equivalent

achievement results, the consequences of an additional year in school then becomes a serious question to the practice of retention.

However, child development specialist Catherine Turley (1979) disagrees. In her study she tried to determine whether an extra year of kindergarten was beneficial for children judged not ready for first grade by the Gesell Developmental Screening test. The study found that when pupils were

> predicted to be unready for grade one on the basis of developmental testing (Gesell and others), and were given an additional year of pre-first grade work, they achieved in reading and mathematics at the end of grade one as well as their grade one peers. The pupils who were predicted to be unready proved to score significantly lower than the grade one peers, both retained and not retained in kindergarten. In addition, they tended to repeat a later grade (p. 4).

This information suggests that pupils determined to be developmentally unready for grade one should be offered an additional year in kindergarten if achievement in reading and mathematics is a primary objective.

Additionally, De Hirsh, Jansky, and Langford in *Predicting Reading Success,* 1984) found that children who lag developmentally but who are promoted to first grade can be predicted to fail academically. They cite the research of Hedges (1977) and Maddox (1980) who found a disproportionate number of disabled readers with developmental unreadiness.

> Ogletree (1972) found that children who are promoted into academic learning beyond the present capacity or motivation level easily become turned off to school; that early learning is not only inefficient but there are indications that it results in a lower plateau of performance and that premature learning creates a mental blockage, lowering the ceiling for the subsequent development of a particular skill (p. 26).

Weiss' (1962) study, supported later by Ames and Chase (1981) and Clarizo et al. (1981), indicated that children not making academic progress in school were likely candidates to dislike school and school work.

The research of Gessell (1968) and Piaget (1950) examined the growth stages of children. Both researchers affirm that children develop in pronounced sequential stages and that they cannot leap from one stage to another through specific training. Clarizo et al. (1981) state that:

> the majority of the evidence to date indicates that specific training does not speed up the stages of intellectual development identified by Piaget. The amount of improvement brought about through intervention is probably limited since the stages of development cannot be compressed into too short a time (p. 37).

Piaget's work indicates that *most* children will have matured enough to allow for intellectual training at about age six. However, "there are indications that a good number of children are not physiologically ready to begin formal training" (p. 39).

Transitional First Grade as an Alternative

An alternative to both retention and promotion is the use of the transitional first grade. T-l programs differ from retention and promotion in very important ways. The differences tend to diminish the negative consequences of each approach (Rihl, 1988).

Since transitional students leave the kindergarten program and progress upward, the T-1 program can best be described as a promotion. A promoted child has fewer problems dealing with negative self-image messages than a child retained in kindergarten. However, the promotion is to a class without the rigor of a regimented academic environment (Turley, 1982).

The transitional grade is usually designed for a smaller, more individualized class. The academic pressures of first grade demanded by the community do not affect T-l students since they are not yet in first grade. The individualized T-l class is designed to be a developmentally appropriate environment. Children are instructed through learning centers and at a slower, more relaxed pace. Shorter periods and smaller class sizes give

teachers ample opportunity to assist children in self discovery and play (Oklahoma State Department of Education, 1984).

Self worth, confidence, and esteem are central to the curriculum and are taught in many ways. The goals supported by developmental theorists describe the T-1 curriculum:

1. The ability to adapt or adjust to standards of group behavior.
2. The ability to be away from home for a long period of the day.
3. The ability to be capable of meeting work standards set by the teacher without becoming upset and evidencing undue anxiety.
4. The ability to relate to other children.
5. The ability to be a child in the new school environment (Hedges, p. 31).

According to the National Association for the Education of Young Children (1988), the developmental curriculum of transitional programs is designed to develop:

> children's knowledge and skills in all developmental areas—physical, social, emotional, and intellectual—and to help children learn how to learn—to establish a foundation for life long learning. The child's self-esteem, sense of competence, and feelings toward learning are stressed. Each child is viewed as a unique person with an individual pattern and timing of growth. Curriculum and instruction are responsive to individual differences in abilities and interests. Different levels of ability, development, and learning styles are expected, accepted, and used to design the curriculum. Children are allowed to move at their own pace in acquiring skills (p. 69).

The program content, although similar to first grade, differs in the basic approach. Bredekamp (1987) proposes that developmental classes should be organized to allow the pace and structure much more flexibility so that every student's needs can be adequately addressed. For instance, language and literacy are stressed through reading and writing, much like first grade, but with much less emphasison technical skills.

Children are encouraged to look through books, and write about their fantasies or activities (using invented spelling). Students draw and dictate stories, discuss teacher

readings, prepare weekly newsletters, make books, plan and implement research projects at suitable levels of difficulty, and are read high quality children's literature.

Developmental first grade students learn math skills through exploration, discovery and real life problems. The emphasis is on the integration of math concepts to other relevant subjects, such as science or social studies. Math skills are also introduced through spontaneous play, projects, and situations of daily living. Manipulatives are used heavily to address various cognitive learning styles (Bredekamp, 1987).

Social studies and science are also a part of the developmental program according to Bredekamp (1987). Social studies themes are identified as the focus of work for various time periods. Concepts are learned through a variety of projects and playful activities including excursions, interviewing visitors, discussions and the relevant use of language.

The classroom is treated as a laboratory of social relations where children explore values and learn rules of social living and respect for individual differences. Relevant art, music, drama, woodworking, and games are also incorporated in social studies.

In addition, Bredekamp (1987) emphasizes the need for multicultural and non-sexist activities and materials to enhance self-esteem and to enrich the lives of all children with respectful acceptance and appreciation of differences and similarities. Pro-social behavior is specifically addressed through group activities, the freedom of individual student choices, the provision of adequate time for children to complete projects, and through ensuring moments of private time alone with the teacher or a close friend.

T-l students help each other, cooperate as a team member, negotiate, and communicate openly with each other when problems arise. The teacher facilitates the development of social skills at all times, emphasizing social development as one of the central components of the transitional program.

Bredekamp (1987) believes that many other topics such as health and safety, art, music, dance, woodworking, outdoor activities, etc. should be integrated into the curriculum to allow for the developmental needs of the student.

The key element of transitional programs is time. Proponents (Turley, 1982; Beck, 1989) argue that because an extra year of differentiated instruction is given to T-1 students, one cannot reasonably argue that T-l is simply a retention or an overplacement by promotion. The uniqueness of the curriculum ensures that T-1 students will have a better opportunity to achieve in the developmental classroom than anywhere else.

Realizing the need to improve first grade academic performance and understanding the developmental needs of unready kindergartners, many school districts in Oklahoma have increasingly used the transitional first grade as a compromise alternative to retention and overplacement. Since students move forward, out of kindergarten and receive differentiated instruction designed for their developmental needs, T-l programs provide a real alternative. The question then begs to be asked, Are transitional first grades effective? Can they improve academic performance and at the same time suffer no ill effects on a student's self-image?

Transitional First: Implications for Student Achievement

Many studies have been conducted which focus on the effectiveness of transitional first grade classes as measured by student achievement. Most of these studies show results for a relatively short period of time (l-4 years). Generally speaking, the results seem to be split. Many of the projects showed definite positive results while many others showed just the opposite.

For instance, the Pheasant study (1985) examined the transitional program in Aumsville, Oregon. Superintendent Ernest Teal implemented the transitional grade as a possible solution to the relatively high number of student retentions in the upper

elementary. Students in grades 4, 5, and 6 were experiencing the typical symptoms of over-placement (slow academic progress, dislike of school, low self-esteem, frequent discipline problems).

Teal initiated the developmental "readiness" room. The program was based on the developmental theories of Arnold Gessell. The child's developmental age was considered the primary factor for readiness in first grade and students were placed accordingly. The development of motor skills and cognitive growth was stressed along with some academic readiness activities. First grade children were screened for academic readiness using either the *Brigance Test: Metropolitan Readiness Test, Level 1, Form A*; a teacher-constructed screening instrument; a speech and language screening, or the *Gessell School Readiness Screening Test.* On the basis of the screening tests, children were placed in the transitional program.

Informal monitoring of the students who went through the transitional grade showed that, for the most part, transitional graduates had not encountered discipline or academic problems and were achieving in either the average or upper groups.

The school's retentions in later grades dropped dramatically. After the first year of the readiness program, only four students were retained in the first grade (down from 15 the year before). In the second year of the program, only one student was retained in first grade (of a class of 86).

Another Oregon study, conducted by Roger Carlson (1986), found the transitional classroom to be an effective means of dealing with student readiness. Carlson's study was designed to determine the effects of retention, transitional programs, and promotion in student achievement and social skills. Twenty-six students who were just entering transitional first grade were compared with twenty students who had just completed T-1, and retained students who had finished two years of kindergarten were compared to forty-

three regular first graders and a control group of fifty-nine other students ranging over four years.

Findings indicated that when a child was identified as "at risk" (or developmentally unready), either kindergarten retention or the transitional first grade classes were better than promotion into first grade for both achievement and increased social skills as perceived by the children's teachers. The "at risk" children without either the transitional class or a retention continued to experience problems into their fourth year of school.

The study conducted by Beckman and Reinert (1981) also found strong evidence for the use of transitional first grades. The Kirkwood School District (Missouri) established a transitional program as an alternative to retaining kindergarten children or promoting kindergartners for first grade without the essential skills necessary to succeed.

The Kirkwood study was designed to determine whether there was a significant difference in the mean pre- and post-test scores on the *Boehm Test of Basic Concepts and the Metropolitan Readiness Test.* Thirty-five children from five elementary schools were compared in the study. Eleven kindergartners who were repeating kindergarten, twelve T-1 students, and twelve first graders who were recommended for T-1 but promoted were randomly chosen from the district's kindergartens, transitional classes, and first grades.

Results showed that there was a significant difference for transitional students in achievement gains at the .001 level of significance. The study concluded, however, that because the study was documented with a small sample, caution should be exercised in the interpretation of the results.

In the Rihl study (1988) of 100 transitional students and first grade students, two groups of 50 first grade students were formed of a total of 136 in the study. All children were eight years old and had been identified as normal children (not in need of special educational services). All first grade students were given the *Metropolitan Readiness Test and Otis Cannon Mental Ability Test* at the beginning of the year. Twelve weeks later the

McDaniel-Pier Young Children's Self-Concept Scale and the *Comprehensive Test of Basic Skills (CTBS), Level B-Forms* were administered.

The purpose of the study was to determine if differences existed between first grade retained students and students who had graduated from a transitional first grade in both achievement results and self-concept. Six years later, a follow-up study was conducted to determine whether the self-concept of the developmental group was sustained. Sixty of the original 100 participated.

The results indicated that T-1 students had higher self-concepts than retained students over a six-year period. Additionally, achievement results for the developmental class were higher as fourth graders on the *Iowa Test of Basic Skills* than a similar group of retained kindergartners as fourth graders.

Mayfield (1988) sees the transition class as an opportunity for children completing kindergarten without the skills needed for a successful first grade year, to experience a program that is more advanced than kindergarten but not as stressful as first grade. Her study on the transitions of children between primary grades recommended that transitional first grade classes be established to benefit the delayed child.

The advantages of transitional programs outweighed any possible negative side effects. The T-1 programs allowed children "more time to mature" and permitted a more complete understanding of specific skills. Individualized teaching was also cited as an important advantage (Mayfield, 1980).

Caldwell (1981), professor of education at the University of Arkansas-Little Rock, believes transitional first grades are much better than retention:

> Transition classes, although adding a year to the child's education, seem to do a great deal of good. One advantage to this approach is that it avoids scapegoating of the student. . . . Limited research on transitional classes indicates that students in them do perform better on primary-level standardized tests (p. 20).

Other studies, however, have found that transitional programs are not so effective. Baenen and Hopkins (1988) found that T-1 students who graduated into the second grade from transitional class outscored transitional graduates promoted to first grade, retained kindergartners and retained first graders in reading, math, and language on ITBS achievement scores. The data also suggested that retaining students in kindergarten is not more beneficial than retention at first grade and a transitional placement followed by promotion to first grade is not more beneficial than a regular first grade placement followed by retention.

Further findings indicated that short term gains were higher for transitional classes than retainees. Average grade equivalent gains, however, were not sustained across time. The transition class participants did not score better than the first grade retainees four years later.

Bell's (1972) study examined transitional first students in Detroit. She compared their achievement scores with students who were recommended for transitional first, but were promoted to first grade. Students were recommended for transitional first by teacher observations, the *Anton Brenner Test of School Readiness* and *Peabody Picture Vocabulary* scores.

Sixty-four students in T-1 classes were compared with twelve promoted kindergartners identified as "at risk." Achievement results were the basis of comparison at the end of each group's first grade year. The findings indicated that the "at risk" kindergartners promoted to first grade made greater achievement gains than transitional students. When the children were tested again at the end of the second grade year, the "at risk" children scored higher on 9 of 10 sub-test scores on the *Stanford Achievement Test*, though not to a significant degree.

The results of the self-concept testing indicated that transitional students showed a loss of self-esteem and self- confidence when compared to the "at risk" students. These

findings ran contrary to the teacher's opinions and feelings. They believed that children definitely benefited from transitional placement.

Talmadge's (1981) study also found that children who had been in a transition room and thus had "two years of school" before first grade, performed no better in reading than comparable children promoted to first grade. Talmadge's study controlled for cognitive ability and reading readiness.

Matthews (1977) also studied the transitional room and its effectiveness in Alton, Illinois. One hundred and sixty-three transitional students were compared with a number of control groups, including 60 who qualified for T-1, but who were promoted to first grade. Retained first graders were also compared as one of the control groups.

Findings showed that T-1 students did not score as well as regular class children, at the end of the second and third grade. "At risk" children placed in the regular class performed better than the T-1 students in 7 of 10 tested categories.

Gilbert Gredler (1984) in a study examining the effectiveness of traditional classes concluded that:

1. Transitional room children either do not perform as well or at most are equal in achievement levels to transition-eligible children placed in regular classrooms.
2. Attitudes of school personnel toward the transition room generally are favorable; yet few, if any, schools have gathered any data to indicate the educative status of children so placed. Statements of faith abound. Few programs maintain effective monitoring systems to indicate the progress of children.
3. Although a small teacher/student ratio often exists in the transition room, some research indicates that less time is devoted to academic activities than is given to children who are eligible for the transition room but are placed in the regular class (p. 469).

The Billman study (1988) agrees with Gredler. Billman states:

> The trend toward having a fourth to a third of all children spending two years in Kindergarten is alarming and disturbing. The curriculum and entrance requirements must be changed so that kindergarten can become an environment that accepts all five-year-olds and helps them pass on to first grade. Schools must accept diversity in all spheres of development—cognitive, social, and physical—and employ well-trained teachers who use appropriate strategies to help all children succeed in the early years of elementary school (p. 16).

Summary

In conclusion, it appears that the literature is split on the effectiveness of transitional first grades. The split is most obvious between those who view transitional first grade programs as retentions and those who see these programs as differentiated instruction.

A conclusion that may be drawn from the research, however, is that differences do exist among learning capacities of children. These differences are due to many factors but among them is notion of the child's developmental readiness. Developmental readiness refers to the abilities children possess to behave as total organisms. A part of these abilities are those that are needed for success in school. Children with delays in their developmental learning rate, when compared with the majority of other chronologically similar children, are believed to have more difficulties in school.

Reasons for the differences in developmental rate are numerous. Brain myelination, health problems, chronological age, and gender differences are among the possible explanations presented. In general, children with these delays can be assisted in school through either promotion with special help, retention, or through a transitional year.

The effectiveness of transitional first grade programs is a comparatively unstudied field. The program focuses on providing additional experiences before a child is promoted to first grade. These experiences and the benefit of additional time are believed to make a difference in the improvement of a child's learning capacities. Those who view

transitional first grade as a kindergarten retention feel that serious self concept damage occurs when the identified T-1 children are not promoted along with their classmates. In addition, opponents argue that the achievement evidence indicates that no academic improvement is made as a result of T-1.

Those who favor transitional first grade believe that T-1 is an alternative to retention in that it provides full day differentiated instruction designed to meet the children's developmental needs. They believe that children do experience increased academic achievement.

Because of the split reported in the literature and the prevalence of T-1 programs in Muskogee and Cherokee County schools, this study attempted to determine if transitional programming in the studied schools was an effective academic placement.

Research questions posed included;

1. Did the students who attended a transitional program in the studied schools during the 1988-89 school year have higher achievement as first graders than those referred for such programs but who did not go?
2. Did attendance in a preschool for at least six months prior to kindergarten make any difference in achievement test scores for transitional first grade students or those referred to T-1 service?
3. Did the child's family's income level make a difference in achievement test scores for transitional first grade students or those referred to T-l service?
4. Did the a child's chronological age make a difference in achievement test scores for transitional first grade students or those referred for T-1 service?
5. Did the child's race make a difference in achievement test scores for transitional first grade students or those referred for T-1 service?
6. Did the child's gender make a difference in achievement test scores for transitional first grade students or those referred for T-1 service?

In addition, the parents' marital status and whether the child attended a baby-sitter or day care for the majority of their childhood were additional variables examined to determine if any differences in achievement tests scores could be found.

Important hypotheses tested were:

1. There are no significant differences in levels of self-esteem for students attending transitional first grade programs and students recommended for T-1 but who were promoted to first grade.
2. There are no significant differences in parent satisfaction levels for parents of students who attended transitional first grade programs and parents of students recommended for T-1 but were promoted to first grade.

CHAPTER III

METHODS AND PROCEDURES

Design of the Study

The purpose of this study was to determine whether the transitional first grade programs in the studied schools were effective in terms of first grade academic achievement, positive student self-concept, and high parent satisfaction. The effectiveness of the programs was measured by: (1) positive achievement results (total battery) on a nationally normed test of academic achievement, (2) good ratings of student self-concepts as perceived by the students themselves, and (3) a high degree of parent satisfaction with the school's program in general.

Transitional first grade students in the studied schools were placed in T-1 on the basis of their delayed developmental readiness. Not all such identified students attended transitional programs, however. As a result, this study compared developmentally delayed students who attended a T-1 class with similarly delayed students who refused T-1 service and who were promoted to first grade instead. The experimental group consisted of those who attended transitional programs. Those in the control group were those identified for transitional placement but who did not attend the programs.

Since many researchers disagree on the benefits of transitional programs, this study attempted to understand why inconsistencies in the research literature existed by examining some possible variables which might influence the results for transitional first grade studies. This study acknowledged that a certain percentage of students attending T-1 programs did not experience significant differences in achievement test scores, self-esteem ratings, or parent satisfaction levels when compared to those who were referred

for T-1 service but who refused. It also acknowledged that some students referred for T-1 service but who refused placement performed well in the tested areas as first graders. These differences may have been a result of the fact that students attending transitional first grade programs were, on the average, one year older than students referred for T-1 service but who refused.

In addition to determining T-1 effectiveness, the study also sorted selected relevant demographic characteristics which may have impacted on student achievement, self-image, and parent satisfaction. Variables such as the child's age, race, gender, family income, whether the child attended a day care facility or had a baby-sitter during the majority of his/her childhood, whether the child came from a single parent home, and whether the child attended a preschool before kindergarten for at least six months were used to describe transitional first grade students and those referred for T-1 classes. The design of the study used the static-group comparison design (Figure 1) described by Huck (1974). The group that received the transitional year was considered the experimental group and the group identified as developmentally delayed but who were promoted to first grade were the control group.

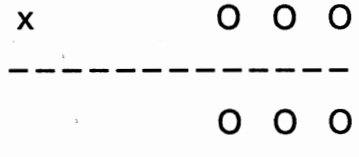

Figure 1. Research design

Method of Data Collection

In September of 1990, the superintendents of all four participating school districts were contacted and visited. Specific permission to involve each district in the study was given. Districts one and three appointed the assistant superintendent to be the liaison between the school district and this researcher. A liaison was needed to introduce the researcher to each of the building principals who would participate in the study. Due to the sensitive nature of collecting student achievement results and other confidential information, a strong line of authority from the superintendent's office was considered very important. District one also presented the study at a meeting of the district's school board. The study was formally approved at the October 1990 meeting.

District one had four elementary schools participating in the study and was located in an eastern Oklahoma town of approximately 40,000 inhabitants. School one was a school of students from a predominantly lower middle class neighborhood and had an enrollment of approximately 480 students. School two was a fairly new school with mostly middle to upper class families. Approximately 550 students attended there. School three was in an older section of town with a relatively high ratio (60%) of minority students and an enrollment of approximately 480. School four was a school with about 550 students in a mostly lower middle class neighborhood.

District two had one large elementary school (approximately 750 students) and was located in eastern Oklahoma in a middle to upper middle class community. The school had a long history with early childhood programs and many years of experience with transitional classes in particular. District three was very similar. The elementary school was split into two sites: one with a kindergarten-first grade enrollment (approximately 250 students) and the other with a second to fifth grade enrollment (approximately 500 students) in a mostly middle class neighborhood.

District four was also located in eastern Oklahoma. All three elementary schools from district four participated in the study. School one was a relatively large school (750 students) with a middle to upper middle class student composition. School two was the oldest in town and was located downtown. Students were mostly from the lower middle to lower class homes. School three enrolled approximately 500 students with a mostly middle class student population.

In March of 1991, building level contacts were made with each school. The assistant superintendents of each district made a formal introduction by letter of the researcher and nature of the study. A few days later, each building principal was contacted by phone to set up a meeting to go over requirements of the study and to receive additional information.

District four entered the study later than the other districts. After a phone conversation describing the nature and purpose of the study in March of 1991, a meeting was set up which included the superintendent and all three building principals.

The meetings with the principals of each district usually lasted approximately fifteen minutes and detailed the purpose of the study, the method of collection, and a proposed time table for collection of information. In addition, these meetings served to allow introductions of the researcher to site staff members that would be involved in the study—namely, the building counselor, kindergarten teachers, first grade teachers, and transitional first grade teachers.

After the initial visit with the principal, further contacts with each school went through the building counselor. These contacts included: several visits to collect the parent satisfaction surveys, one to test participating students for self-esteem, and one to collect achievement data.

From the information collected, it was determined that a total of 210 students were either in transitional programs in the participating schools during the 1988-89 school year

or were referred for such programs. Of this number, 128 were T-1 students and 82 were referred for T-1 service but did not attend.

Instrumentation

Instrument I was the *Iowa Test of Basic Skills* (ITBS) designed by Hieronymus and Lindquist (1974). The total battery national percentile ranking for each student was used as the means of comparison: This battery included the sub-categories of listening, word analysis, vocabulary, reading, spelling, capitalization, punctuation, usage, total language, visual material, reference materials, total worksheet, math concepts, math problems, math comprehension, total math, and basic complete battery.

The test was developed by the Riverside Company and is currently used as Oklahoma's state mandated test for grades 3, 5, 7, 9, and 11. All schools included in the study used the ITBS for first grade achievement analysis because of the need for consistency between primary grade testing and state mandated testing.

The ITBS was designed to assess "generalized intellectual skills and abilities" as opposed to specific content skills (p. 6). Hieronymus and Lindquist (1970) state that:

> The Iowa Tests of Basic Skills differ from most other elementary achievement test batteries in that they are concerned only with the generalized intellectual skills and abilities and do not provide separate measures of achievement in the content subjects, such as social studies, literature, general science, and descriptive geography (p. 6).

The ITBS has a reliability coefficient of .94 on the Spring norms of the composite score. The Kuder-Richardson Formula 20 was used to compute the coefficient, which tends to be higher than coefficients obtained through the administration of equivalent forms (Hieronymus and Lindquist, 1974).

Instrument II was a parent satisfaction questionnaire and informational survey. The questionnaire assessed parental attitudes regarding: the school in general, the kindergarten program, the transitional program before and after placement (for students attending the program), and first grade. Information collected as a part of this survey

included: the child's age, race, gender, whether the child attended a preschool, whether the child's mother stayed at home during the child's early life, the parents' marital status, and family income level.

The satisfaction questionnaire was jury validated by a panel of early childhood experts. Included in the panel were seven first grade teachers with teaching experience ranging from eight to twenty-six years, four kindergarten teachers with experience teaching kindergarten ranging from one to sixteen years, and an elementary school principal with prior early childhood teaching experience. In addition, a psychologist with a doctorate in child psychology and thirty years of experience dealing with children, an elementary school counselor who routinely sits on placement committees for promotion and retention of developmentally delayed students, and a school superintendent with over fifteen years of administrative experience served on the jury.

All 16 jurists agreed that the parent satisfaction survey accurately measured parent satisfaction levels as described by the following statement.

> This questionnaire was designed to assess parent satisfaction levels for their child's elementary school education in general (q. 1, 2), the referral process by the school (q. 3, 4), the transitional first grade program (q. 5 and 11 which were scored only for those parents with children actually attending a T-1 program), the kindergarten program (q. 6), the first grade program (q. 10), and the parent's feelings about their decision not to accept the school's referral to T-1 (q. 12—scored only for parents whose children did not attend a T-1 class, but who were referred).
>
> In addition, the survey attempts to collect the following kinds of information; the child's preschool history (q. 13), the child's day care history (q. 14), the child's family income, (q. 15), whether the child lives or has lived in a one parent home (q. 16), the child's birth date (q. 17), and the child's race (q. 18).

The reliability of the parent satisfaction survey was determined using a test/retest procedure. Twenty-two volunteers completed the questionnaire on two different occasions. Each questionnaire was then compared to the one previously completed by the same volunteer. An item-by-item analysis was conducted to determine if each item was answered the same way both times by each volunteer. Reliable questions were deemed

those that were answered the same way on two separate occasions by at least ninety percent of the group (Salvia & Ysseldyke, 1974). The results of the item analysis were as follows:

Question 01 . . . 21 of 22 answers were identical - 95%
Question 02 . . . 21 of 22 answers were identical - 95%
Question 03 . . . 20 of 22 answers were identical - 91%
Question 04 . . . 20 of 22 answers were identical - 91%
Question 05 . . . 21 of 22 answers were identical - 95%
Question 06 . . . 21 of 22 answers were identical - 95%
Question 10 . . . 20 of 22 answers were identical - 91%
Question 11 . . . 20 of 22 answers were identical - 91%
Question 12 . . . 21 of 22 answers were identical - 95%

The questionnaire's purpose was to determine the level of parent satisfaction with the school in general, the kindergarten program, the first grade program, the transitional first grade program, the referral process, and the parents' decision to either send their child to T-1 or to first grade instead of T-1.

The questionnaire used a likert-type scale which measured the strength of agreement with each questionnaire statement. For each item, a parent was asked to check a response which indicated strong agreement, agreement, agreement sometimes, disagreement, and strong disagreement.

Questions 1 and 2 measured parent satisfaction with their child's education in school. Questions 3 and 4 measured the parent's satisfaction with the way the referral process was handled by the school and whether the referral was correct in the parent's opinion. Question 5 measured the parent satisfaction level for the transitional first grade program.

Question 6 measured the parent's satisfaction level with the school's kindergarten program. Question 10 measured the level of parent satisfaction with the first grade program. Question 11 measured the parents' satisfaction level with the transitional first

grade program. Only those parents whose children attended the T-1 program were scored on question 11.

Question 12 measured the parent's satisfaction level with their decision not to send the child to a T-1 program even though they were referred for T-1 service. Only those parents with children who were referred for transitional first grade but who refused service were scored on this item.

Questions 7, 8, and 9 were not a part of the parent satisfaction survey. They were included to gain additional information about transitional first grade programs. Question 7 measured whether self-esteem concerns were a primary cause for parental anxiety about placing children in a T-1 program. Question 8 measured if other reasons caused parental anxiety about a transitional first grade placement. Question 9 measured whether parents were anxious at all about sending their child to a T- 1 class.

Items 13 through 18 asked parents to respond yes or no to questions about the child's family background. Question 13 asked if the child attended a preschool before kindergarten. This information was collected to determine if a preschool education made any difference in achievement scores.

Question 14 asked if the child stayed at home during the majority of his/her childhood or if he/she attended a day care or baby-sitter. This information was collected to determine what difference, if any, a parent staying at home with their child during his/her childhood had for first grade achievement scores.

Question 15 asked about the parents' family income. The information was used to determine if any differences existed between those children from homes with family incomes below $20,000 per year and those above $20,000 per year in first grade achievement test scores.

Question 16 asked whether the child had been raised in a single-parent home during any part of his life. This information was used to determine if this family situation tended

to make any difference in first grade achievement scores for the students in the experimental and control groups.

Question 17 asked for the child's birth date. The date was used to determine if chronological age was a significant factor among the children compared in this study for first grade achievement test scores.

The parent satisfaction survey was scored by assigning each response category as follows:

strongly agree	=	5 points
agree	=	4 points
sometimes agree	=	3 points
disagree	=	2 points
strongly disagree	=	1 points

Scores on questions 1 through 6, and 10 through 12 were combined to generate a total parent satisfaction level for each questionnaire.

Parents of children attending a transitional first grade program were scored on questions 1, 2, 3, 4, 5,6, 10, and 11. Parents with children referred for T-1 service but who did not attend were scored on questions 1 through 6, 10 and 12. The highest score possible for either group was 40. The lowest possible score for either group was 8.

Parents of students attending T-1 programs and those refusing service were identified on each survey by a three-digit code in the upper left corner of each survey. The hundreds place in the code designated which school a particular student attended. School codes were identified as follows:

100's - School #1

200's - School #2

300's - School #3

400's - School #4

500's - School #5

600's - School #6

700's - School #7

800's - School #8

900's - School #9

The tens place identified a student as being either in the group attending a T-1 program or in the group of those who were referred for transitional first grade service but who refused. Transitional first grade students were coded from 51 to a high of 86 while those refusing service were assigned numbers from 1 to a high of 23. The code was necessary to keep the experimental group responses (T-1 group) separate from the control group (those refusing T-1 service). As an example:

306 = The three designates that the student was from school three. The six designates his student number in that group. Since the number is between one and twenty, this student was referred for T-1 service but who refused to go.

559 = The five designates that the student was from school number five. The fifties place designates that the student was a transitional first. grade participant and the nine designates the student's number in the school group.

Instrument III was the *Self-Concept Adjective Checklist* (SCAC) (Politte, 1971). The scale was used to evaluate student self-concept through a checklist of 114 adjectives which describe the student. Four categories of adjectives and a miscellaneous category which include behaviors of groups, emotional feelings and habits were included. Scoring ranged from 1 to 3 on the SCAC; 1 meaning poor self-confidence, 2 meaning average self-confidence, and 3 meaning exaggerated self-confidence. A .83 reliability has been assigned to this measure for test/retest (Politte, 1983). The SCAC was administered to a representative sample of students participating in the study.

Sample Selection

Achievement Test

Teachers and administrators from participating schools were surveyed to determine the names of kindergartners in the 1988-89 school year who were recommended for transitional programming. Only students referred for T-1 service due to developmental delay were included as a part of the study. The names of students who refused transitional placements were collected and separated from those who actually attended the program. All 128 transitional first grade students (experimental group) and 82 students referred for T-1 but who refused the placement (control group) were included in the achievement test observation.

Achievement data were collected by examining 1989-90 ITBS first grade achievement test results. The achievement tests were given in March of 1990. The total battery percentile was used as the achievement score in this study due to its overall measure of a student's achievement in comparison to national norms. The percentile score ranks each student from a low of one to a high of ninety-nine in terms of the total number of correct responses on the ITBS.

For each school participating in the study, the following procedure was used to collect achievement results:

1. The names of all first graders who took the ITBS in the spring of 1990 were recorded.
2. Kindergarten teachers from the 1987-88 school year then identified which children from the list of names were referred for transitional first grade service but who did not attend. These students formed the control group.
3. The transitional first grade teacher from the 1988-89 school year then identified which students from the list of names attended a transitional first grade program. These students formed the experimental group.

4. The identified students total battery ITBS achievement score was then collected and used as a part of this study.

Students forming the experimental group attended a transitional first grade program in the 1988-89 school year and kindergarten the year before (1987-88). Students in the control group were referred for T-1 service in the 1988-9 school year. Both groups attended first grade in the 1989-90 school year (Figure 2).

Experimental Group	1987-88	1988-89	1990-91	April 1991
(Transitional grade students)	Kinder.	T-1	First Grade (ITBS given March 1990)	Collection of 1st grade achievement data
Control Group		1988-89	1990-91	April 1991
(Those referred for T-1 but didn't attend)		Kinder.	First grade (ITBS given in March 1990)	Collection of 1st grade achievement data

Figure 2. ITBS Achievement Comparisons By Method

Parent Satisfaction Survey

Each student who attended a transitional first grade during the 1988-89 school year and who had a 1989-1990 ITBS first grade achievement test score received a parent satisfaction survey (Exhibit 1), along with a letter of explanation. The letter (Exhibit 2) explained the purpose of the study and asked the parents to respond to the survey and send it back to school.

Two hundred and ten surveys were sent home with students identified in the study: 121 were completed and returned (57%); 22 students had moved out of the districts (10%); and 68 (32%) did not want to participate in the study.

The parent satisfaction survey was an observation used to measure the satisfaction levels of parents of children who attended a transitional first grade and parents of children who were referred for T-1 service but who refused. The observation was taken in April of 1991 during the children's second grade year. Transitional first grade students included in this study attended the first grade in the 1989-90 school year, and T-1 the year previous (1988- 1989). They attended kindergarten in the 1987-88 school year.

Children who were referred for T-1 but who refused service included in this study were also second graders for the parent satisfaction survey observation. They attended first grade during the 1989-90 school year and kindergarten the year before in 1988-89 (Figure 3).

Students were promised candy to bring the survey back to school in order to increase their motivation to return the form. In addition, a lottery was held which awarded a twenty-five dollar cash prize to a student selected by chance that had a returned and completed survey. The surveys were collected within a two- to four-day period.

Experimental	Kindergarten	T-1	1st Grade	Sat. Survey April 1991
(T-1 students)	1987-88	1988-89	1989-90	1991
Control Group		Kindergarten	1st Grade	Sat. Survey April 1991
(Referred T-1 students but refused service)		1988-89	1989-91	1991

Figure 3. Parent Satisfaction Survey Results By Method

Self-Concept Test

A group of 50 students were randomly selected to take part in the self-concept observation of this study. Twenty-five students who attended a transitional first grade program in the 1988-89 school year and twenty-five students who were referred for such a program during the 1988-89 school year but who refused service were chosen.

All 210 students who attended a T-1 program or who were referred for such a program were assigned a student number. Student numbers ranged from 101-110, 151-159, 201-222, 251-260, 301-306, 351-363, 401-412, 451-459, 501-510, 551-560, 601-604, 651-666, 701-709, 751-765, 801- 805, 851-885, 901-904, and 951-960.

A stratified sample was used to select equal numbers from the experimental group (T-1 students) and the control group (referred T-1 students but who refused service). A total of 128 transitional students and 82 referred students were identified as the target population.

All members of the T-1 group were assigned a consecutive number from 1 to 128. An arbitrary number was chosen from a list of random numbers (13) to begin the random selection process. The following students were then chosen (in order): 103, 701, 707, 203, 604, 204, 701, 506, 804, 801, 903, 215, 412, 803, 206, 101, 302, 708, 901, 219, 902, 305, 510, 105, and 401.

The experimental group (T-1 students) was chosen using the same procedure. Student numbers 853, 253, 352, 355, 651, 956, 862, 854, 558, 764, 655, 155, 362, 957, 259, 654, 870, 557, 659, 760, 951, 459, 882, 556, and 454 were chosen from the list of random numbers. Each school in the study had students chosen in the random sample as follows:

	Experimental	Control
School 1	1	3
School 2	2	5
School 3	3	1
School 4	2	2
School 5	3	2
School 6	4	2
School 7	5	4
School 8	3	3
School 9	2	3
	25	25

Students in the experimental group were kindergartners in the 1987-88 school year, transitional first grade students in the 1988-89 school year, first grade students in the 1989- 90 school year, and second grade students in the 1990-91 school year. Control group members were kindergartners in 1988-89, first grade students in 1988-90, and second grade students in 1990-91 (Figure 4).

Experimental Group	Kindergarten	T-1	1st Grade	April 91 SCAC Admin.
	1987-88	1988-89	1989-90	1991
(Transitional first grade students)				

Control Group	Kindergarten	1st Grade	SCAC Admin.
(Those referred (for T-1 but who refused service)	Attended kindergarten referred for T-1 service	Attended first grade	1991 SCAC Admin.

Figure 4. Student Self-Concept Adjective Checklist Results By Method

The students randomly selected to be a part of the self-esteem observation were then tested using the *Self-Concept Adjective Checklist*. The second grade teacher was contacted by the researcher and counselor about the self-esteem test giving information as to how the test would be administered, scored, and reported. Students were then tested one at a time in the school hallway or counselor's office.

Each teacher of a transitional first grade class was asked to describe their transitional first grade curriculum. All eleven T-1 teachers reported that they used the curriculum suggested for developmental first grade listed in the Oklahoma Suggested Learner Outcomes (Oklahoma State Department of Education, 1987).

Treatment of Data

The independent variable in this study was the transitional first grade program. Dependent variables included: the ITBS first grade composite score, the *Self-Concept Adjective Checklist*, and the Parent Satisfaction Questionnaire.

Since the achievement observation included every student member of the target population, descriptive statistical techniques were employed to compare and contrast students from both the experimental and control groups. The data collected were encoded into an IBM computer using the SYSTAT software program (Wilkinson, 1989). Mean scores, standard deviations, minimum scores, maximum scores, and the total numbers of students in each group were computed.

Two t-tests were run with the SYSTAT computer program to test for significant differences between the experimental and control groups at the $p < .05$ level for parent satisfaction levels and student self-esteem levels. A T-test was used because the independent variable (the transitional program treatment) was a categorical variable with two levels (identified children attending the transitional program and those who did not attend), and the dependent variables (parent satisfaction and student self-esteem) were continuous.

In addition, inferential statistics were used to compare the ITBS achievement results for the experimental and the central groups with the following factors:

1. Preschool. Children in both groups were compared by first grade achievement scores to determine any differences in the mean scores of children who attended preschool classes and those who did not.
2. Day care or baby-sitter care. Children in both groups were compared by first grade achievement scores to determine any differences in the mean scores of children who attended a day care or baby-sitter for a majority of their childhood and those who did not.
3. Family income. Children in both groups were compared by first grade achievement scores to determine any differences in the mean scores of children who came from homes where the family income was less than $20,000 and those who came from homes where the family income was more than $20,000 annual income.
4. Parent marital status. Children in both groups were compared by first grade achievement scores to determine any differences in the mean scores of children who came from single-parent homes and those who did not.

Inferential statistical procedures were used because the demographic information collected came from the Parent Satisfaction Survey. Since only 57% (121) of the students returned the survey, a one-way analysis of variance was used to test for significant differences in the means for the experimental and control groups at the $p < .05$ level of significance. When significance was found, a Tukey HSD was performed to test the direction of the significance.

Descriptive statistical procedures were used to describe the groups compared with the following demographic information:

1. Birth date. Children in both groups were compared by first grade achievement scores to determine any differences in the mean scores of children born from

September to November, December to February, March to May, and June to August.

2. Race. Children in both groups were compared by first grade achievement scores to determine any differences in the mean scores of Caucasian, African-American, Oriental, Indian, Hispanic, or Other children.
3. Gender. Children in both groups were compared by first grade achievement scores to determine if differences in gender made a difference in achievement results for both groups studied.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this study was to determine the effectiveness of the transitional first grade programs of the selected schools of Muskogee and Cherokee Counties. Effectiveness was measured in terms of academic achievement as first graders, high parental satisfaction levels for the school and its programs, and high student self-esteem levels. To analyze the effects of transitional programs for developmentally delayed children, the group of children attending T-1 programs in the 1988-89 school year in the studied schools was compared with a group of similarly identified delayed students, but who refused T-1 service.

National percentile rankings (total battery) on the *Iowa Test of Basic Skills* were used to measure academic effectiveness. A specially designed Parent Satisfaction Survey was used to measure the level of parent satisfaction for participating students. The *Self-Concept Adjective Checklist* was used to measure randomly selected students' self-esteem levels. The self-esteem and parent satisfaction observations were collected during the spring of the participating students' second grade year. The achievement data were collected in the spring of the participating students' first grade year.

Description of the Treatment

Teachers of transitional first grade programs were asked to describe their program. All eleven teachers responded that they patterned their programs after the Developmental

First Grade Suggested Learner Outcomes (State Department of Education, 1987). This curriculum was designed to meet the needs of developmentally delayed children.

Specifically, classroom instruction dealing with the development of the whole child was used in various learning center activities, whole group instructional activities and games, and other child-centered activities. Curricular emphasis focused on the development of self-help and social skills. Learning responsibility, identifying and labeling feelings, working and playing cooperatively with others, or learning socially acceptable behavior were reported to be important parts of the curriculum.

Other skills stressed were:

1. Attending skills: following directions, listening attentively, or attending to a task for an appropriate length of time
2. Work habits: making wise decisions and choices, displaying self confidence, attempting to solve problems without the teacher's help
3. Creative skills: using imaginative play to interpret the world or express oneself, proposing new solutions to old problems, responding to tempos or moods in music, or using movement to express language.

Academic concepts were also introduced but through a non-structured, student directed approach. Language experience stories, dictated reading, invented spelling, and other developmentally appropriate techniques were used to promote learning.

In language arts, the developmental curriculum emphasized skills such as:

1. recognizing environmental sounds,
2. following three to four oral sequential directions,
3. identifying the first and last events in a story,
4. identifying eight basic colors,
5. identifying likenesses and differences,
6. pairing upper and lower case letters,
7. recognizing first and last name in manuscript form,

8. interpreting pictures,
9. using crayons with control,
10. writing most letters of the alphabet,
11. using scissors with control, and
12. beginning to use a pencil.

Other academic areas were also taught through student-directed learning centers or whole group instruction. Math, science, social studies, music, dance, drama, woodworking, cooking, and physical activity were daily parts of the transitional first program.

Demographic Characteristics

The students involved in this study were either transitional first grade students or students referred to a transitional first grade program in one of the nine schools studied during the 1988-89 school year. Each student was referred to a transitional first grade program by their kindergarten teacher due to their having a developmental delay of some kind. Symptoms of this delay usually included an inability to learn the pre-academic skills necessary for a successful first grade year. Students forming the experimental group were those students that agreed to attend the school's developmental or transitional first grade class. The control group was formed by those students who were referred to a T-1 class but who refused service. These students were promoted directly to first grade.

A total of 210 students participated in the investigation of first grade academic achievement using the total battery national percentile rank on the Iowa Test of Basic Skills. An analysis of the results is presented in Table I. Of this group, 82 students had been referred for transitional first grade service but refused service and 128 had attended a T-1 class.

Demographic information was collected through the Parent Satisfaction Survey. One hundred and twenty-one students (57%) returned the survey which was used to sort

ITBS achievement data by student characteristics. Table II compared the students returning the Parent Satisfaction Survey (121 students) by their birth dates. Students were grouped in four categories: Birth group 1 (those born in September, October, and November), Birth group 2 (those born in December, January, and February), Birth group 3 (those born in March, April, and May), and Birth group 4 (those born in June, July, and August). Of the students returning the survey, 23 were from Birth group 1 (19%), 25 were from Birth group 2 (21%), 28 were from Birth group 3 (23%), and 28 were from Birth group 4 (23%).

Figure 3 compared students by race. Of the 121 students returning the Parent Satisfaction Survey, 72 were from race 1 (Caucasian—60%), 16 were from race 2 (Black —13%), 30 were from race 4 (Indian—25%), and 3 were from race 5 (Hispanic—2%). There were no students from race 3 (Oriental) or from race 5 (other).

Figure 4 examined the gender characteristics of the children included in the study. Of the 210 students, 116 were boys and 94 were girls. Of the boys, 68 attended a T-1 program while 48 refused service and attended first grade instead. Of the girls, 60 attended a transitional program and 34 refused T-1 service and were promoted to first grade.

Table III compared students by their early childhood day care experience. Of the 121 students compared, Group 1 (51 students—42%) attended a day care or baby-sitter during the majority of their early childhood while their parents worked. Of these, 33 students attended a T-1 class and 18 were referred for such service but refused. Seventy students (58%) were cared for by one or both parents during the majority of their early childhood years during the work week. Of this group, 45 attended a T-1 class and 25 refused T-1 service.

Table IV examined the family income levels of students returning the Parent Satisfaction Survey. Of the 121 responses, 58% (71) of the students came from homes where the family income was above $20,000 per year. Of these, 50 attended a

transitional first grade program and 21 refused such service. Forty-two percent (54) of the students came from homes earning less than $20,000 per year. Thirty- two of these attended T-1 and 22 were referred for T-1 service but refused.

The information collected in Table V examined the parental marital status for the students returning the Parent Satisfaction Survey (121 students). Fifty-six students (46%) came from single parent homes. Thirty-nine of these attended a T-1 class and 17 refused T-1 service. Sixty-five students (54%) came from two parent homes (traditional homes). Of these, 39 attended T-1 and 26 refused T-1 service and were promoted to first grade.

Table VI examined the preschool history of the children returning the Parent Satisfaction Survey. Of the 121 surveys returned, 58 students (48%) had attended a preschool for at least 6 months prior to kindergarten. Of this group, 35 attended a transitional first grade program and 23 refused T-1 service. Sixty-three students (52%) had not attended a preschool. From this group, 43 attended a T-1 classroom and 20 were referred for but refused T-1 service.

Table VII compared parent satisfaction levels for the parents of students who attended a transitional first grade program and parents of students that refused T-1 service. Of the 210 students identified, 121 (57%) returned the Parent Satisfaction Survey containing this information. Forty-three students were referred for T-1 but refused service, and 78 students attended a T-1 class.

Table VIII examined the differences in self-esteem as measured by the *Self-Concept Adjective Checklist* (Politte, 1974). Fifty randomly selected students were compared. Twenty-five students attended a T-1 class and 25 students were referred for T-1 but refused service. The 50 children examined represented 24 percent of the children studied.

Analyses

Two hundred and ten students identified as having some kind of developmental delay were examined by their total battery national percentile rank on the Iowa Test of Basic Skills. The results presented in Table I reported that the mean percentile rank for the students attending a transitional first grade program in the 1988-89 school year was 52.79. The mean percentile rank for students referred for T-1 during the 1988-89 school year (due to their developmental delay) was 41.09.

Because all students participating in the study were included in the achievement observation, descriptive data were used to compare the groups. The results shown in Figure 5 indicated that students who attended a transitional class had an average ITBS national percentile rank that was 11.7 percentile points higher than those referred for T-1 service but who refused service.

A detailed examination of certain demographic characteristics was undertaken using the ITBS achievement results as a measure. Because the information collected reflected only a portion of the total number of students studied (121), inferential statistical procedures were used to determine if mean scores differed in statistically significant fashion. In addition, a Bartlett's test for homogeneity of variance was conducted for each data set using inferential statistics with unequal cells. In each case, the null hypothesis could not be rejected and the assumption of equal variances was confirmed (Huck, 1974).

Table II examined the mean ITBS national percentiles for developmentally delayed children of varying birth dates. The results showed that no significant differences were found for those children born in Birth group 1 (September, October, November), Birth group 2 (December, January, February), Birth group 3 (March, April, May) and Birth group 4 (June, July, August) at the $p < .05$ level. A conventional Bartlett's test on the within-cell variances yielded a probability of .259, indicating homogeneity among variances (Huck, 1974).

TABLE I

MEANS ON ITBS (TOTAL BATTERY) NATIONAL PERCENTILE FOR STUDENTS ATTENDING TRANSITIONAL FIRST GRADE CLASSES AND THOSE REFERRED FOR SUCH CLASSES BUT WHO REFUSED SERVICE (MARCH 1990)

Grade	Method	N	Standard Deviation	National Percentile Mean
1	M1	82	22.274	41.09
1	M2	128	26.087	52.79

Method 1 (M1) = Students referred for T-1 service but who were promoted to first grade.

Method 2 (M2) = Students attending T-1 classes.

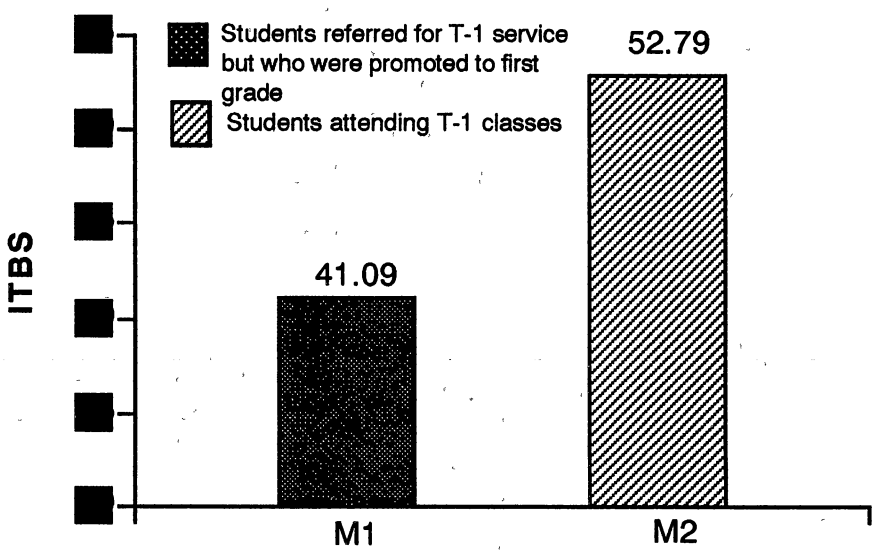

Figure 5. National Percentile Rankings (Total Battery) on the ITBS for First Grade Students Attending T-1 and Those Referred for T-1 Service But Who Refused Service

TABLE II

ANOVA SUMMARY TABLE COMPARING MEANS OF ITBS (TOTAL BATTERY) NATIONAL PERCENTILE RANKINGS FOR CHILDREN OF VARYING BIRTH DATES (MARCH 1990)

Source	Sum of Squares	DF	Mean Square	F	Probability
Between Groups	10468.248	9	1163.139	1.891	0.055*
Within Groups	122988.781	200	614.944		

* p > .05 significance.

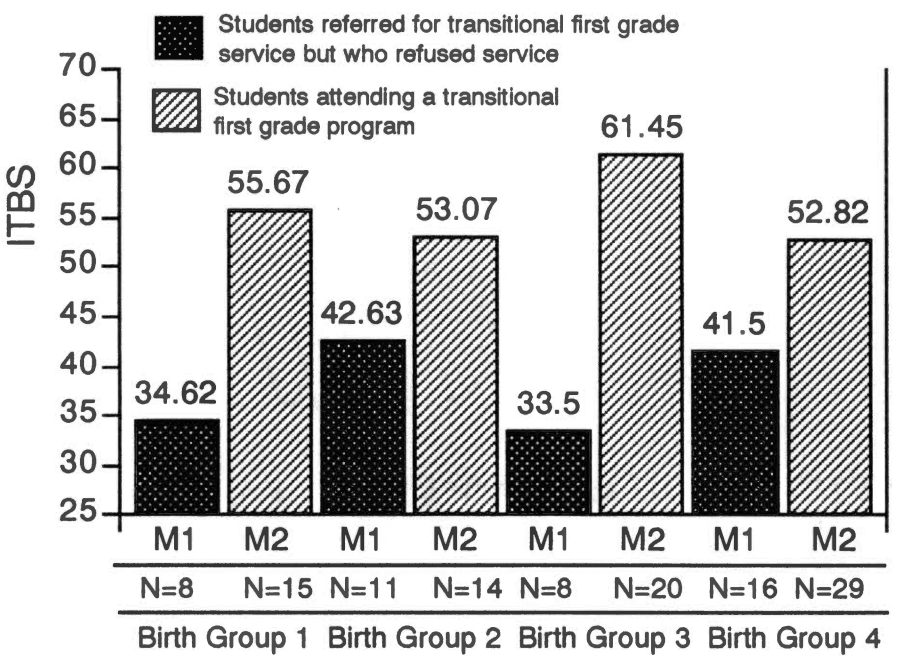

Figure 6. National Percentile Rankings (Total Battery) on the ITBS for Children of Differing Birth Dates Attending T-1 or Refusing T-1 Service

Figure 6 indicates that students born in Birth group 3 (March, April, May) had the largest difference in the mean national percentile rank (+27.95) between the experimental and control groups, followed by students in Birth group 1 (+21.05 difference), students in Birth group 4 (+11.32 difference), and students in Birth group 2 (+10.44 difference).

Of the group of students that attended transitional first grade classes, students from Birth group 4 earned a mean national percentile ranking of 52.82 which was higher than those born in the same period that refused T-1 service. Transitional first grade students born in March, April or May had the highest mean percentile rank for the ITBS (61.45). Of the students refusing T-1 service, students from Birth group 2 had the highest mean ITBS percentile rank (42.63) while students in Birth group 3 had the lowest mean percentile (33.50).

Figure 7 compares the mean percentile rankings for developmentally delayed children of varying races. Since two of the racial groups (Oriental and Other) have no variance, a one-way analysis of variance and Bartlett's Chi-square statistic could not be computed. The results indicated that transitional first grade students of all races had higher national percentile rankings than those who were referred to such programs but who refused service. Caucasian children had the greatest difference among the experimental and control groups observed. Blacks (Race 2) had the next greatest difference (+15.95).

Only three Hispanic children were compared with a difference in mean percentile rankings of +12. Indian children had a +10.71 difference in mean national percentile rankings on the ITBS.

Differences in mean national percentile rankings by gender were examined in Figure 8 for students who attended T-1 and those refusing T-1 service. For the children who attended a transitional program (128 students), girls had higher percentile rankings than boys.

TABLE III

ANOVA SUMMARY TABLE COMPARING MEANS OF ITBS (TOTAL BATTERY) NATIONAL PERCENTILE RANKINGS FOR TRANSITIONAL FIRST GRADE STUDENTS AND THOSE REFERRED FOR T-1 SERVICE BY DAY CARE HISTORY (MARCH 1990)

Source	Sum of Squares	DF	Mean Square	F	Probability
Between Groups	9019.847	5	1803.969	2.957	0.013*
Within Groups	24437.182	204	609.986		

* $p < .05$ significance.

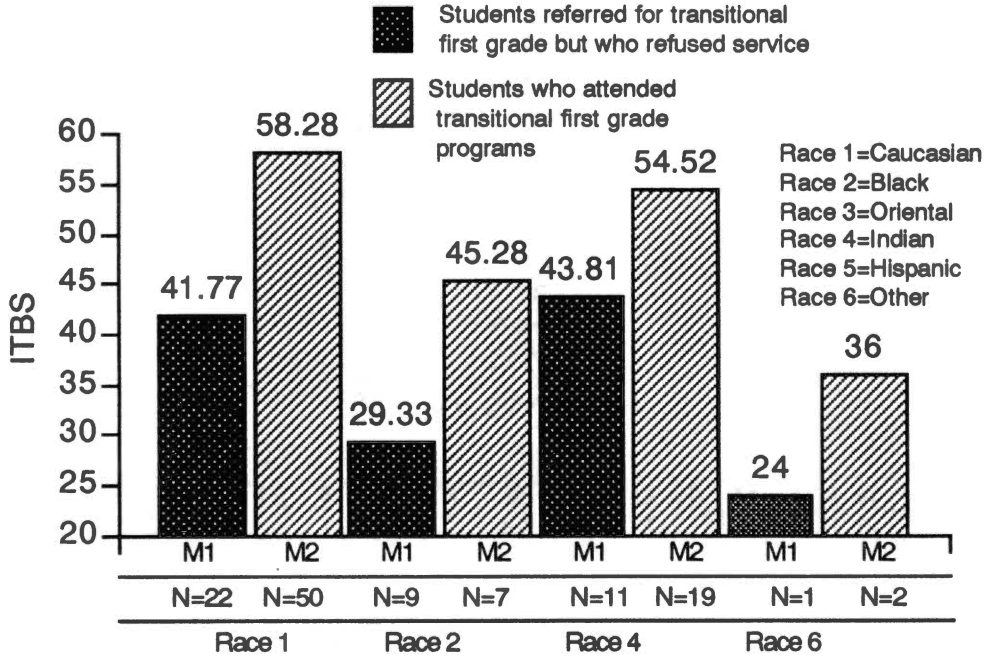

Figure 7. National Percentile Rankings (Total Battery) on the ITBS by Race for First Grade Students Attending T-1 and Those Referred for T-1 But Who Refused Service

Further analysis revealed that boys who refused T-1 service performed better (42.34) on the ITBS as first graders than girls who did not attend T-1 (39.26). The reverse is true for those who attended T-1 (boys-50.94, girls-54.90). The differences in means between method 1 (those refusing T-1) and method 2 (those attending T-1) was greater for the girls (+15.64).

Table III examined the differences in mean total battery national percentile ranking on the ITBS for both T-1 and referred T-1 students who stayed at home for the majority of their early childhood or who attended a baby-sitter or day care during the work week. The data were collected to determine if a child's day care experiences made any differences in developmentally delayed children's first grade achievement scores. Because the sample compared included a portion of the total students compared (57%), an analysis of variance was used to analyze the data. In addition, a Bartlett's test for homogeneity of group variances was conducted. The results of the Bartlett's indicated that there was homogeneity among variances.

Due to a significant finding, a follow-up analysis using Tukey's HSD was performed to determine which variable caused the significant F in the one-way analysis. The results indicated that students who attended a day care or baby- sitter for the majority of their childhood and who later attended a transitional first grade class had a significantly higher national percentile rank than those day care students who refused T-1 service at the $p < .05$ significance level. They also had a significantly higher percentile rank than those children who refused T-1 service but who stayed at home with one or both of their parents during the majority of their childhood. There were no significant differences found between transitional students who attended a day care or baby-sitter and T-1 students who stayed at home with their parents. There were also no significant differences found between day care students and students staying home with their parents among the group refusing T-1 service.

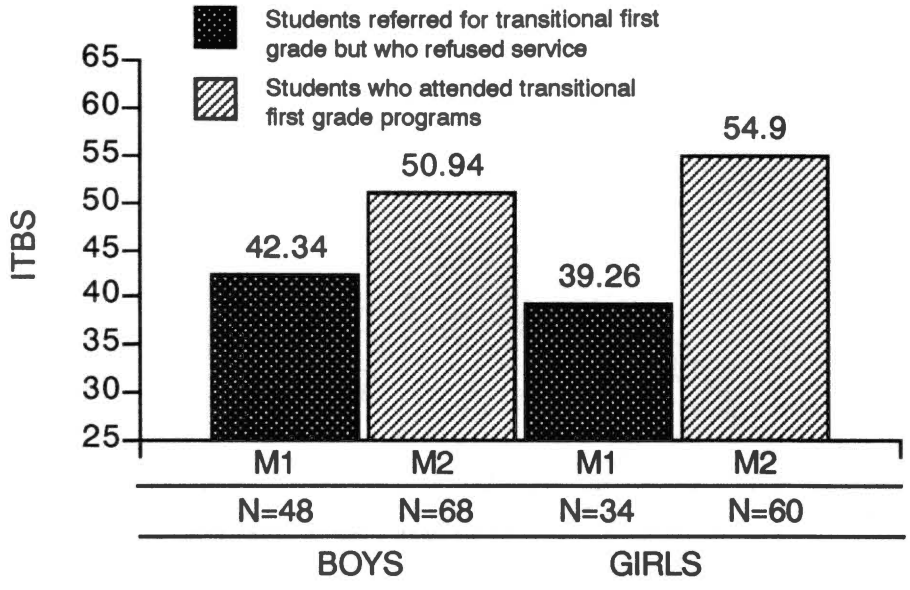

Figure 8. National Percentile Rankings (Total Battery) on theITBS by Gender for First Grade Students Attending T-1 Programs and Those Referred for T-1 But Who Refused Service

Figure 9 examined the differences in the mean national percentile rank between T-1 and referred T-1 students who attended a day care or baby-sitter and those who stayed at home with their parents. Those attending a baby-sitter or day care and a T-1 program had a higher mean national percentile rank than any other group (57.33). The mean difference (+19.17) between the experimental and control group was also greater than for any other group. Of the group that stayed home with their parents, a mean difference of +14.73 was found.

Table IV described the differences in the mean national percentile rank for students referred for T-1 and those attending T-1 classes in terms of family income. The groups were compared by whether or not their family incomes for their kindergarten year exceeded $20,000. An analysis of variance was run to analyze the data and to determine if the variances in means were significant. This was necessary because only 57% (121) of the students were compared in this part of the study. A Bartlett's test of homogeneity was also conducted which indicated that there was homogeneity among variances.

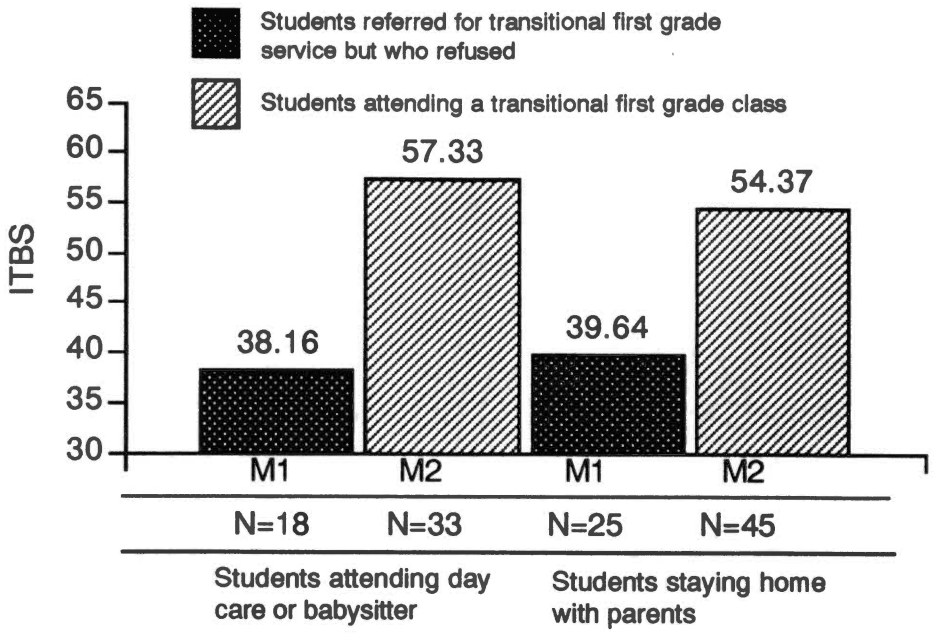

Figure 9. National Percentile Rankings (Total Battery) on the ITBS for Children Attending a T-1 class and Children Refusing T-1 Service by Day Care History

TABLE IV

ANOVA SUMMARY TABLE COMPARING MEAN ITBS (TOTAL BATTERY) NATIONAL PERCENTILE RANKINGS FOR TRANSITIONAL FIRST GRADE STUDENTS AND STUDENTS REFERRED FOR T-1 CLASSES WITH VARYING INCOME LEVELS (MARCH 1990)

Source	Sum of Squares	DF	Mean Square	F	Probability
Between Groups	9799.030	5	1959.806	3.233	0.008*
Within Groups	123657.999	204			

* $p < .05$ significance.

Significant differences were found among the groups when compared by family income levels. A follow-up analysis using Tukey's HSD procedure was performed to determine which variables were significantly different. The results (Figure 10) indicated that transitional first grade students from homes where the family income was more than $20,000 per year had significantly higher mean national percentile rankings (54.84) than both students from homes earning less than $20,000 per year and students from homes earning more than $20,000 per year who refused T-1 service. No other significant differences were found, although Figure 10 describes a sizable difference (+13.36 in the mean national percentile rankings) between T-1 students and those referred for T-1 service who came from homes earning less than $20,000 per year.

Table V examined the differences in mean ITBS national percentile ranks for students attending T-1 class and those refusing T-1 service by their parents' marital status. The effects of being raised in a single-parent home were measured against the total battery ITBS first grade result. Because only 121 students returned information concerning their parents' marital status, a one-way analysis of variance was used to analyze the data. In addition, a Bartlett's test of homogeneity was run which confirmed homogeneity of variances.

The results of the ANOVA presented in Table V indicated that the model was significantly different from zero. As a result, a post hoc Tukey HSD was performed to compare the means and determine levels of significance. The test showed that students attending T-1 classes from two-parent homes (traditional homes) had a significantly higher mean national percentile ranking than referred transitional first grade students from single-parent homes. Additionally, T-1 students from traditional homes had a significantly higher mean national percentile rank than students referred for T-1 classes from traditional homes. Figure 11 describes these differences and shows no other significant differences between any of the other groups, although T-1 students had a higher mean national percentile rank than either group of students refusing T-1 service.

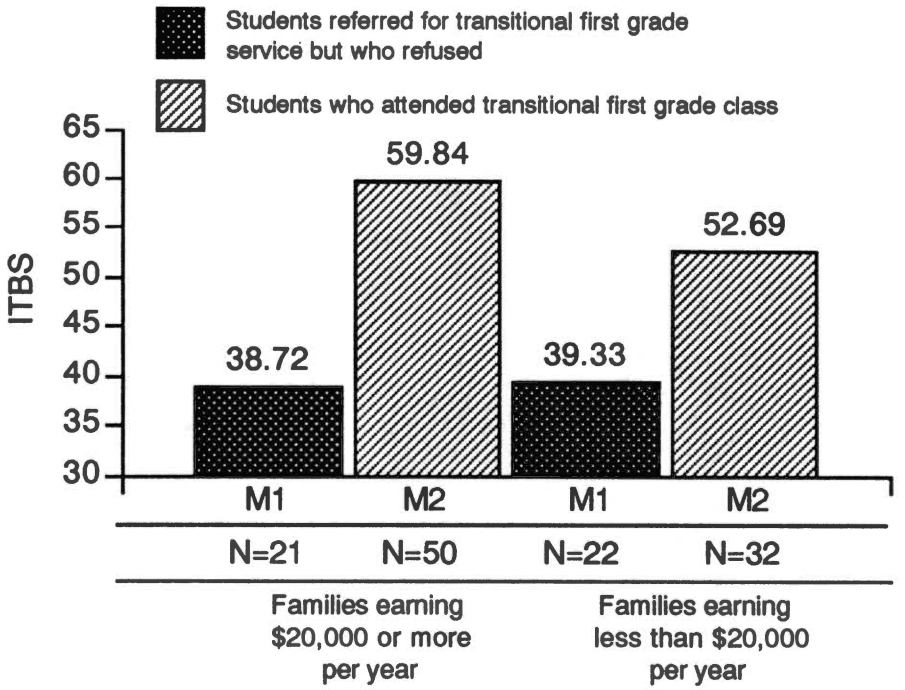

Figure 10. National Percentile Rankings (Total Battery) on the ITBS for Transitional Students and Those Referred for T-1 Service With Varying Income Levels

TABLE V

ANOVA SUMMARY TABLE COMPARING MEANS OF ITBS (TOTAL BATTERY) NATIONAL PERCENTILE RANKINGS FOR TRANSITIONAL FIRST GRADE STUDENTS AND THOSE REFERRED FOR T-1 SERVICE COMING FROM BOTH SINGLE PARENT AND TRADITIONAL HOMES (MARCH 1990)

Source	Sum of Squares	DF	Mean Square	F	Probability
Between Groups	14617.179	5	2923.436	5.018	0.000*
Within Groups	118839.849	204	582.548		

* $p < .05$ significance.

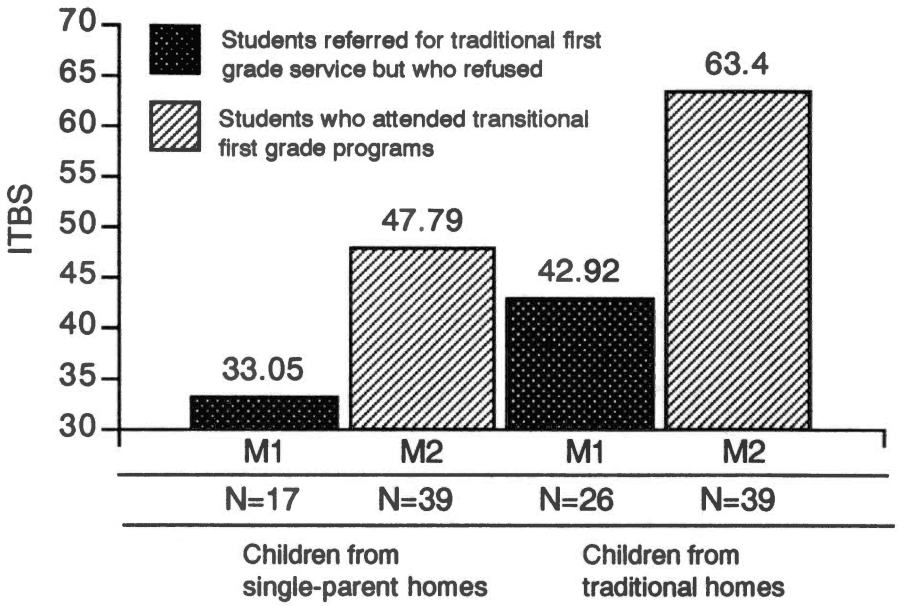

Figure 11. National Percentile Rankings (Total Battery) for Students From Single Parent or Traditional Homes Who Attended a T-1 Class or Refused T-1 Service

TABLE VI

ANOVA SUMMARY TABLE COMPARING MEANS OF ITBS (TOTAL BATTERY) NATIONAL PERCENTILE RANKINGS FOR TRANSITIONAL FIRST GRADE STUDENTS AND THOSE REFERRED FOR T-1 SERVICE WITH VARYING LEVELS OF PRESCHOOL HISTORY (MARCH 1990)

Source	Sum of Squares	DF	Mean Square	F	Probability
Between Groups	9400.544	5	1880.100	3.092	0.010*
Within Groups	124056.485	204	608.120		

* $p < .05$ significance.

The data compared in Table VI examined the child's preschool history. Students who had attended a preschool for at least six months prior to kindergarten were compared with those who had no preschool experience. Because only 57% (121 students) returned information on preschool history, a one-way analysis of variance was used to analyze the results. In addition, a Bartlett's test for homogeneity of variances was conducted. The results of the Bartlett's showed that there was homogeneity of variances.

Findings of the ANOVA indicated that there were significant differences between the groups. A follow-up ad hoc Tukey HSD was conducted to determine the differences. Results of the Tukey indicated that transitional first grade students who attended a preschool before kindergarten had a significantly higher mean national percentile ranking (58.57) than children refusing T-1 service with or without preschool experience.

In addition, Figure 12 shows a sizable difference in the means of the children not attending preschool. For this group, the transitional students had a higher mean percentile rank than those refusing T-1 service. No other significant differences were found.

Table VII examined levels of parent satisfaction using the Parent Satisfaction Survey. A maximum score of 40 indicated high levels of parent satisfaction with the school and its programs. A minimum level of 8 indicated low levels of parent satisfaction. Students participating in the study were given a survey to be completed by their parents. One hundred and twenty-one (57%) of the parents responded. The responses were then compared by method of instruction.

Method one included students referred to transitional first grade but who refused service in the 1988-89 school year. Method two included students who attended a transitional first grade program in the selected schools during the 1988-89 school year. The Parent Satisfaction Survey was given to each group in the spring of their second grade year. Because only a portion of the total number of surveys were returned, a T-test was used to examine differences among means. In addition, a Bartlett's test for

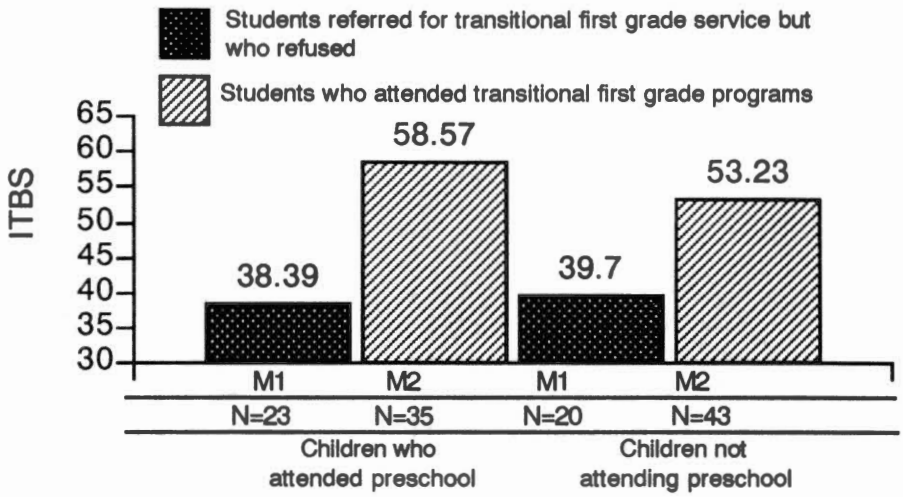

Figure 12. National Percentile Rankings (Total Battery) on the ITBS for Transitional Students and Those Referred for T-1 Service with Varying Levels of Preschool Experience

TABLE VII

A COMPARISON OF PARENT SATISFACTION LEVELS AS MEASURED BY THE PARENT SATISFACTION SURVEY FOR STUDENTS ATTENDING TRANSITIONAL FIRST GRADE PROGRAMS AND THOSE REFERRED FOR SUCH PROGRAMS BUT WHO REFUSED SERVICE (MARCH 1991)

Instructional Method	M	SD	T	Probability
Transitional First Graders	32.244	4.444	4.023	0.000*
Referred T-1 Students	28.605	5.297		

* $p < .05$ significance.

homogeneity of variances was conducted. The Bartlett's test showed that there was homogeneity of variance among the means.

The results presented in Figure 13 indicated that there was a significant difference in levels of parent satisfaction among both groups. Parents of transitional first grade students as a whole were significantly more satisfied with the school and its programs than parents of students referred for transitional first grade but who refused service.

Table VIII described the differences in self-esteem levels of students who attended transitional first grade and students referred for T-1 service but who refused. The observation was conducted in the spring of 1991 which was during the children's second grade year using the *Self-Concept Adjective Checklist.*

Fifty students were randomly selected to be included in the observation: 25 who attended a T-1 class during the 1988-89 school year, and 25 who were referred for T-1 service in the same year but refused. Because only a portion of the total number studied was observed, a T-test was conducted to compare the means of both groups. The results indicated that there were no significant differences between the groups tested.

The results (shown in Figure 14) indicate that there were no real differences in group means between the experimental and control groups. Although students refusing T-1 service had slightly higher self-esteem levels, the difference was so small as to be insignificant.

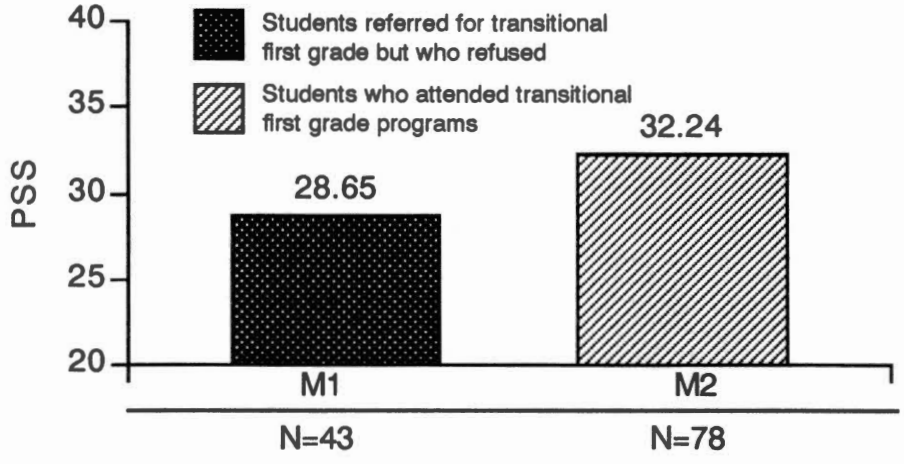

Figure 13. Comparison of Parent Satisfaction Levels for Students Attending Transitional First Grade and Those Referred for T-1 But Who Refused Service

TABLE VIII

A COMPARISON OF STUDENT SELF-CONCEPT AS MEASURED BY THE SELF-CONCEPT ADJECTIVE CHECKLIST FOR STUDENTS ATTENDING TRANSITIONAL FIRST GRADE PROGRAMS AND THOSE REFERRED FOR SUCH PROGRAMS BUT WHO REFUSED SERVICE (MARCH 1991)

Instructional Method	M	SD	T	Probability
Transitional First Graders	2.009	0.140	0.407	0.686*
Referred T-1 Students	2.027	0.166		

* $p < .05$ significance.

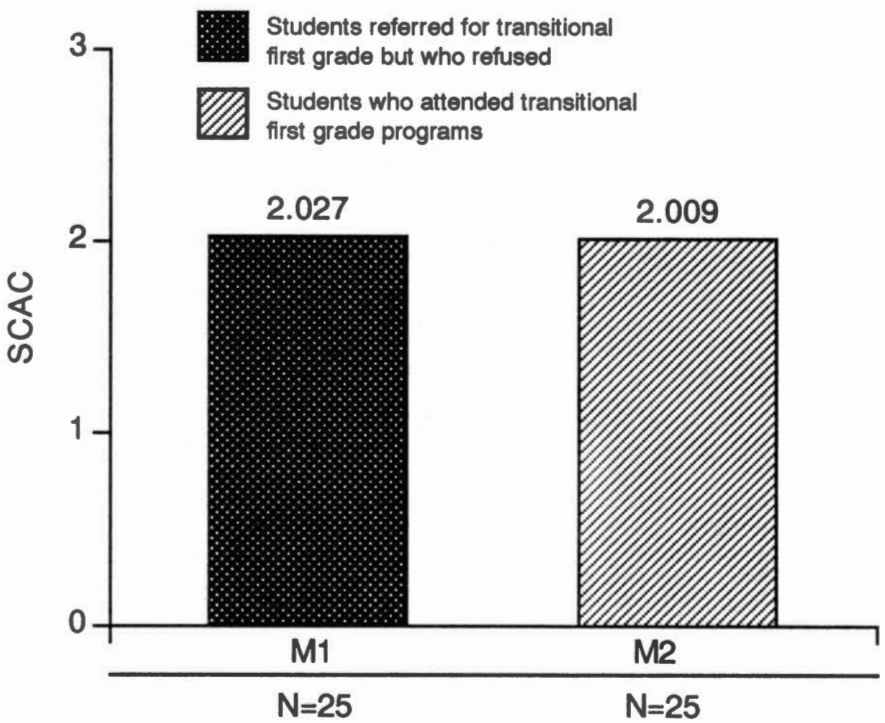

Figure 14. Comparison of Student's Self-Esteem Levels for Students Attending Transitional First Grade and Those Referred for T-1 But Who Refused Service

CHAPTER V

SUMMARY, CONCLUSIONS AND IMPLICATIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to determine if the transitional first grade programs in the schools studied were effective in terms of academic achievement, parent satisfaction, and student self-esteem. The study compared children from nine schools across two counties who had been identified as having some kind of developmental delay. The delay was recognized by the child's kindergarten teacher through various symptoms such as an inability to grasp pre-first grade academic skills, social immaturity, or an unusually short attention span. Because not all such identified children attended a transitional first grade program, two groups were compared by achievement scores, parent satisfaction levels, and student self-esteem. Those attending T-1 programs formed the experimental group while those refusing T-1 service formed the control group.

The review of literature revealed that many early childhood researchers view transitional first grade programs as a kind of kindergarten retention (Elkind, 1987; Godfrey, 1970; Raygor, 1972). Many studies have found no significant differences between developmentally delayed students attending T-1 classes and those referred for such service but who refused to go (Turley, 1979). However, in the past five years, as a result of increased national and state priorities, early childhood programs have received much attention. As a result, many schools have increased the academic expectations for first graders. The increased expectations have widened the gap between the numbers of students that are ready to learn structured academic concepts and those who are not.

Transitional first grade programs have been introduced as a compromise solution to this problem. These programs attempt to reduce the numbers of unready first graders being promoted to first grade and at the same time satisfy parents by promoting kindergartners to a higher grade level. Many educators have supported T-1 programs because they believe that the children graduating from these classes are more mature and able to cope with the demands of first grade.

The literature tends to support the idea that a difference does indeed exist in many children between their chronological age and their developmental age (Scott and Ames, 1969). For those espousing this view, placing children in a environment where the expectations are higher than the child's developmental ability is foolish. Delayed entrance, developmental or transitional first grade programs, non-graded elementary school structures, and even retention has been preferred by many instead of placing an unready child in an academically-oriented first grade (Donofrio, 1977; Finlayson, 1977).

The schools examined in this study have taken the position that transitional first grade programs help developmentally delayed children get a good start in public school education. No studies, however, had been conducted to support these views, even though the programs in many schools had been in place for years. The intent of this study was to provide the data needed to determine if these programs were indeed all that they were thought to be.

Because of the increasing concern among parents of first graders for high academic achievement, an important measure of effectiveness for transitional first grade students was first grade academic achievement. Since the purpose of the T-1 classes was to prepare unready kindergartners for first grade, then the achievement results after a first grade year would provide a good evaluative tool. If it could be shown that T-1 students scored no better than students referred for T-1 but who refused service, then transitional first grade programs could not be considered effective in helping developmentally delayed students learn academic skills.

Because T-1 programs involve adding an extra year of schooling to a young child's life, school officials have been hesitant to recommend such a placement because of the effect on the child's self-concept. However, if it could be demonstrated that children attending T-1 programs had no significant differences in levels of self-esteem when compared to other developmentally delayed children that were promoted to first grade, then concern for placing children in these programs could be diminished somewhat.

Because elementary schools have a long tradition of being governed by the consensus of the community, parent satisfaction with the school and its programs has been a major concern for school officials. In circumstances where the parents needed to be to convinced of the wisdom of a particular placement decision, the school administrator has been looked to provide leadership. Unfortunately, no documented parent satisfaction surveys or opinion polls had been collected in the studied schools to assist the administrator in assessing the collective feelings of parents with developmentally delayed children. If it could be shown that parents of transitional first grade students were significantly more satisfied with the school and it's programs after two years of public schooling then parents of similarly delayed children that refused T-1 service, then T-1 programs could be considered effective in terms of parent satisfaction.

This study attempted to provide the information that would assist school officials in determining whether transitional first grade programs were indeed effective in terms of academic achievement, parent satisfaction levels, and student self-esteem in the studied schools. Research questions posed in the study were as follows:

1. Did the students who attended a transitional program in the studied schools during the 1988-89 school year have higher achievement as first graders than those referred for such programs but who did not go?
2. Did attendance in a preschool for at least six months prior to kindergarten make any difference in achievement test scores for transitional first grade students or those referred to T-l service?

3. Did the family's income level make a difference in achievement test scores for transitional first grade students or those referred to T-l service?
4. Did the child's chronological age make a difference in achievement test scores for transitional first grade students or those referred for T-l service?
5. Did the child's race make a difference in achievement test scores for transitional first grade students or those referred for T-l service?
6. Did the child's gender make a difference in achievement test scores for transitional first grade students or those referred for T-l service?

In addition, the parent's marital status and whether the child attended a baby-sitter or day care for the majority of their childhood was examined to determine if any differences in achievement tests scores could be found.

Because the achievement data were collected for all 210 students involved in the study, descriptive statistical procedures were used to compare and contrast the experimental and control groups. However, when the same groups were sorted by certain demographic characteristics and compared by their first grade achievement results, inferential procedures were needed because the demographic information was available for only 57% of the students. Statistical treatment in these cases was by analysis of variance with supportive data from Bartlett's test for homogeneity of variance and Tukey's Ad Hoc Test. The significance level was set at $<.05$.

The hypotheses posed for testing in this study were:

1. There are no significant differences in levels of self-esteem for students attending transitional first grade programs and students recommended for T-1 but who were promoted to first grade.
2. There are no significant differences in parent satisfaction levels for parents of students who attended transitional first grade programs and parents of students recommended for T-1 but who were promoted to first grade.

The same inferential statistical procedures were used to measure significant differences in means for both hypotheses. The self-concept observation can be generalized back to the target population since both groups observed were randomly selected.

Conclusions and Implications

Student Achievement

The purpose of this study was to determine if the transitional first grade programs of the studied schools were effective in terms of academic achievement, parent satisfaction, and student self-esteem. The analysis of the data collected revealed that there were important differences among students attending T-1 classes and those referred for such service but who refused to attend.

Research Questions 1 through 6 examined both groups by their first grade achievement scores. Since the cost of sending children to transitional programs is high— not only in terms of the financial resources required by the schools for personnel, space, materials, and equipment, but also in the addition of an extra year of school for the children involved— higher first grade achievement test scores were considered by many to be the primary reason for having such programs. Unless the programs produced better first grade learners, the effectiveness of transitional classes would be in doubt.

The results of the study (shown in Table I) indicated that transitional first grade students as a whole had a higher mean national percentile rank than students referred to T-1 but who refused to attend. The implications of this result is that if the students who refused T-1 service would have attended a T-1 class, their national percentile rank on the average would have been 11.7 percentile points higher. Therefore, the answer to research question one is affirmative. Students who attended T-1 programs in the studied schools performed better on their national achievement tests than similarly developmentally delayed students refusing such service.

Research questions 2 through 6 broke the groups studied down into smaller sub-groups with differing demographic characteristics. Question 2 examined the effects of preschool. Would developmentally delayed children who attended a preschool for at least six months prior to kindergarten score higher as first graders on the ITBS? The answer (presented in Table VI) was affirmative.

Because only 57% of the children studied provided the information needed to answer question 2, a one-way analysis of variance was run to determine if there were significant differences among the means. Four groups were compared; children who attended preschool and later attended a T-1 class, children who attended a preschool and were later referred for a T-1 class but who refused, children who did not attend a preschool but attended a T-1 program, and children who did not attend a preschool class and were referred for but refused T-1 service.

Transitional first grade students who attended preschool had significantly higher ITBS achievement scores than children who did not attend T-1 with or without preschool experience. The children attending T-1 and preschool also outscored those who attended T-1 but not preschool, although not to a significant degree. The implication is that T-1 students who attended a preschool were more prepared for first grade than T-1 students who had no preschool experience. Therefore, preschool experience was very helpful in making the transitional first grade year better for developmental delayed children.

Question 3 examined the effects of family income on developmentally delayed children. This study attempted to answer the question of whether a child's family income makes any difference in ITBS first grade results for both T-1 students and those referred to such programs. The answer was affirmative.

A one-way analysis of variance was run (because only 57% of the children studied returned the demographic information) which revealed that T-1 students who came from homes where the family income was more that $20,000 per year had significantly higher

mean national percentile rankings than students refusing T-1 service regardless of the family's income level (Table IV).

Transitional first grade students from homes earning more than $20,000 per year also performed better than T-1 students from homes earning less than $20,000 per year, but not to a significant degree. The results also indicated that among the group from homes earning less than $20,000 per year, T-1 students outperformed those that refused T-1 service, but not to a significant degree (Figure 6).

The implications of this information is that while T-1 students of all income levels perform better on their first grade ITBS achievement tests than those refusing T-1 service, the children from homes earning more than $20,000 per year do the best.

Question 4 examined the effects of chronological age on developmentally delayed children. Students from the experimental and control groups with varying birth dates were compared by their first grade achievement scores. The children's birthdays were categorized into four groups. Birth group 1 was for students born in September, October, or November; Birth group 2 was formed with students born in December, January, or February; Birth group 3 was composed of students born in March, April, or May; and Birth group 4 were students born in June, July, or August. A one-way analysis of variance was run to determine if significant differences existed between the group means (due to the fact that only 57% of the children studied were compared). The results (listed in Table II) indicated a .055 level of probability that the differences in mean scores were statistically significant. Since this level was not within the limits of significance required by this study, no further analysis was undertaken.

Figure 2 reported the national percentile rankings for the children of differing birth dates participating in the study. Of the groups compared, students from Birth group 3 had a much higher mean than any other Birth group. Transitional first grade students from all Birth groups scored much better on their first grade achievement tests than students who refused T-1 service. Of particular interest, however, was the number of students

forming each group. Birth group 1 had just 23 students, Birth group 2 had 25, and Birth group 3 had 28. Birth group 4 in contrast, was composed of 45 students, which indicates that many more chronologically young children were referred for T-1 programs than older children.

According to developmental theory, the oldest children should have had the highest ITBS scores. However, the birth date results draw attention to the possibility that other factors may be involved which explain why children did or did not perform well on the academic achievement test. It was reported by teachers and administrators that many developmentally delayed children were later referred for special education service. Many of these children were later identified as having learning disabilities or other forms of mental or emotional retardation.

One possible explanation as to why children from the eldest group were out-performed by those from Birth group 3 is that a larger proportion of the students identified in this group may have had special educational problems. Since many of the developmentally young children were already up to nine months older than other T-1 candidates, a smaller percentage of these children would have had severe delays. Therefore, more of these children would have been promoted to first grade. The oldest T-1 students deemed not ready for first grade may have been promoted for other reasons. Perhaps the teacher believed that these children would be too old or too big to add an extra year to their schooling. It may have been that only the most severely delayed older children were referred to T-1 programs. As a result, a larger percentage of these children may have had other kinds of learning problems in addition to a developmental delay.

The answer to question 3 is still unknown. However, with the unexplainable exception of T-1 students from Birth group 3, the oldest students attending T-1 classes scored best among the groups compared, followed by the next oldest (Birth group 2) and the youngest (Birth group 4). Also of interest is the fact that children of all ages refusing T-1 service were outscored by students who attended a transitional first grade program.

The implication is that chronological age was not a factor in the differences between the experimental and control groups. Children of all ages benefited from T-1 service.

Question 5 was posed to determine if race made any differences in the experimental and control group ITBS first grade achievement scores. Six racial categories were compared: Caucasian, Black, Oriental, Indian, Hispanic, and Other. However, since two of the groups had no children studied and one had only three participants, inferential statistical procedures could not be used. However, of the groups studied, it should be noted that children who attended a transitional first grade class from all races outscored their counterparts who refused T-1 service. The largest differences between experimental and control group means (reported in Figure 3) were for the Caucasian children. The answer to question 5 is still in question. While differences were found between experimental and control groups, no one racial group can be singled out as having superior results.

Figure 3 also revealed that of the group referred for T-1 but who were promoted to first grade instead, Indian children had the highest mean rank (43.81). Caucasian children scored next highest (41.77), Black children were next (29.33), and children from other races were last (24). Of the group that attended T-1, Caucasian children performed the best (58.24), followed by Indian children (54.52), Black children (45.28), and children from other races (36).

Question 6 examined the differences between developmentally delayed boys and girls as first graders. Since all 210 children were compared, descriptive statistics were used to analyze the results. The findings showed that while transitional first grade students did better than students referred for T-1 but who did not attend, the female T-1 students scored the best and had the greatest differences between experimental and control groups.

Since many educators believe that boys do not mature as quickly as girls at this age, this finding was not particularly surprising. The implication is, however, that many girls

do have need of developmental first grade programs and this result indicates that the girls who participated in this study did very well (Figure 4). Therefore, the answer to question 6 is affirmative. Gender did seem to make a difference in the achievement test results for T-1 students and those referred for T-1.

Additional demographic information collected compared students in both experimental and control groups by their parents' marital status. Children who came from single parent homes were compared with children from two parent traditional) homes. Because only 57% of the students studied were compared, a one-way analysis of variance was run to determine levels of significance. The results (presented in Table V) indicated that there were significant differences between the four groups compared. While children who attended a T-1 class outperformed those who refused T-1 service, T-1 students from the traditional two-parent homes had significantly higher scores than students from other groups (Figure 7). The implication is that the two-parent home provides a much better environment for developmentally delayed children.

Developmentally delayed children were also compared by their day care experiences. Children who attended a day care establishment or baby-sitter for the majority of their childhood and who later attended a T-1 class had significantly higher ITBS scores than students who stayed at home with one or both parents during their early childhood (Table III). Of the children staying at home with their parents, T-1 students outscored students referred for T-1 but who refused service (Figure 5). The differences between T-1 students who attended a day care or baby-sitter and T-1 students who stayed at home with their parents were not statistically significant.

One possible explanation as to why students who attended a baby-sitter or other day care facility outscored those who were cared for by their parent may be that those attending outside day care facilities had more social interaction with other children than students who stayed at home. In addition, they may have developed more independence

and experience dealing with the demands of adults other than their parent. Although the differences between the groups were not significant, they were noteworthy.

It is important to note that the demographic characteristics sorted simply identified which groups among the children studied had the best results on their ITBS achievement tests.

The results showed the transitional first grade students consistently outperformed students who were similarly referred for T-1 service but who refused. Since the positive results were so widespread among all groups compared, the T-1 programs of the nine schools studied as a whole, must be considered effective in terms of academic achievement.

Student Self-Esteem

A frequent concern cited by parents of identified developmentally delayed students for not placing their children in a transitional first grade program was that their child's self-concept may be damaged by placement in a T-1 class. Since self-esteem is so vitally important for a child's total development, it was essential that programs offered to children with developmental delays be presented in ways that tend to build rather than destroy a child's self-concept.

The schools included in this study had taken the position that the child's self-esteem is damaged more by an unsuccessful first grade year. However, no evidence other than the subjective opinions of the teachers involved has ever been collected to support this position. This study attempted to determine if transitional first grade students had significantly higher ITBS scores than students referred for T-1 but who refused service.

Twenty-five students from the experimental group were randomly selected to be compared with twenty-five randomly selected students from the control group. Because only a portion of the total numbers of students studied were examined, a T-Test was run to determine if there were significant differences between the groups. The results of the

study (provided in Table VIII) revealed a probability of 86, which indicated that there were no significant differences in levels of student self-esteem for the groups compared. Both groups scored in the 2 range, which indicated self-confidence.

This finding had the effect of suggesting that transitional first grades are effective in terms of student self-esteem. Since damage to self-esteem was the major reason used by many parents to refuse T-1 service, a finding of no difference between the groups studied strengthens future T-1 recommendations. Even with the addition of an extra year, transitional first grade students did not have any loss of self-esteem when compared to referred students who refused T-1 service by the end of their second grade year. Therefore, the null hypothesis failed to be rejected.

Parent Satisfaction Survey

Satisfaction levels for parents of elementary students has always been a concern for school administrators. This study attempted to provide information that would answer the question, Are parents of T-1 students more satisfied with the school and its programs than parents of students refusing T-1 service?

To answer this question a specially designed parent satisfaction questionnaire was sent to all 210 students participating in this study; 121 responses were returned (57%). A T-test was run to determine if significant differences existed in levels of parent satisfaction between students who attended a T-1 class and students that were referred but who refused service.

The results of the T-test revealed that the parents of students who attended a T-1 program were significantly more satisfied with the school and its programs than parents of children who were referred for T-1 but who refused service. The null hypothesis, therefore, was rejected at the .05 level.

The implication of this result is that after two years, parents of T-1 students were more satisfied with the school and its programs than parents of students who refused T-1

service. Indeed, on many of the Parent Satisfaction Surveys, parents wrote notes stating that at first they were very cold to the idea of placing their child in a T-1 class. They later, however, recognized how it helped their child and were much more enthusiastic. One school studied even went as far as to collect testimonial letters from parents who had reservations about placing their child in a T-1 class. The letters were used to help reluctant parents understand that they would not regret a decision to place their child in a T-1 class. Since the T-1 parents had significantly higher levels of satisfaction, transitional programs must be considered effective in terms of parent satisfaction.

Recommendations

The recommendations listed are focused on the developmental needs of the children of the nine schools studied. Based on the findings of this study, recommendations are suggested for educational systems and further research.

Due to the consistently positive results of each observation, it would appear that developmentally delayed children benefit from transitional first grade programs. While the results of the ITBS achievement tests were higher for T-1 students overall, transitional first grade students in the following categories had the best results:

1. Students born in March, April, or May (61.45 mean), followed by students born in September, October, or November (55.67 mean), students born in December, January, or February (53.07 mean) and students born in June, July, or August (52.82 mean).
2. Caucasian children (58.28 mean) followed by Indian children (54.52 mean), Black children (45.28 mean), and children of other races (36 mean).
3. Girls (54.90 mean) followed by boys (50.94 mean).
4. Students attending a day care or a baby-sitter for the majority of their childhood (57.33 mean) followed by students staying at home with their parents during the majority of their early childhood (54.37 mean).

5. Students from homes earning more than $20,000 per year (59.84 mean) followed by students from homes earning less than $20,000 per year (57.69 mean).
6. Children from two-parent homes (63.40 mean) followed by children from single-parent homes (47.79 mean).
7. Children attending preschool before T-1 (58.57 mean) followed by children not attending preschool before T-1 (53.23 mean).

For the students refusing T-1 service, the students in the following categories had the best results:

1. Students born in December, January, and February (42.63 mean), followed by students born in June, July, or August (41.50 mean), students born in September, October, or November (34.62 mean), and students born in March, April, or May (33.50).
2. Indian children (43.81 mean) followed by Caucasian children (41.77 mean), African-American children (29.33 mean), and children of other races (24 mean).
3. Boys (42.34 mean) followed by girls (34.26 mean).
4. Students staying at home with their parents during the majority of their early childhood (39.64 mean) followed by students attending a day care facility or baby-sitter during the majority of their early childhood (38.16 mean).
5. Students from homes earning less than $20,000 per year (39.33 mean) followed by students from homes earning more than $20,000 per year (38.72 mean).
6. Children from two-parent homes (42.92 mean) followed by children from single-parent homes (33.05 mean).

7. Students who did not attend a preschool before kindergarten (39.70 mean) followed by students who attended a preschool before kindergarten (38.39 mean).

Of the students attending transitional classes, the only significant differences were found between T-1 students who came from two-parent homes and T-1 students who came from single-parent homes. Apparently a structured environment that included a mom and dad had an extremely positive impact on the developmentally delayed child. Of those refusing T-1 services, there were no significant differences found for the demographic characteristics.

The levels of parent satisfaction have been shown to be significantly higher for parents of T-1 students when compared to parents of students who refused such service. Student self-esteem levels were shown to be not significantly different for either groups studied. Due to these findings, the following recommendations can be made for:

Educational Systems

1. The continuation and expansion of transitional first grade programs in the studied schools is recommended on the basis that they do positively impact the developmentally delayed child's first grade achievement results and parent satisfaction levels with no significant differences in student self-esteem. Delayed children from two-parent homes are especially recommended for service due to the significant differences in the ITBS achievement results.
2. The dissemination of this and other research conducted in the schools studied concerning the continued effectiveness of T-1 programs is recommended.
3. The implementation and expansion of developmental instructional strategies including head start programs and preschools is recommended.
4. In-service activities for K-12 staff members concerning developmental theory and transitional first grade goals are needed.

Further Research

1. Continued research into the effectiveness of T-1 programs in the studied schools should be undertaken. Additionally, longitudinal studies need to be initiated to measure the effects of T-1 over a longer period of time.
2. More detailed and useful evaluative tools are needed to measure T-1 effectiveness. Developmental scales and indepth observations of both parent and student attitudes toward T-1 placements are also needed.
3. Research among schools is needed to determine which schools have the best T-1 programs. Aspects of these programs could then be observed and copied in other schools.

The use of transitional first grade programs in public schools will probably continue. It would be advantageous to eliminate the need for these programs all together through delayed entrance programs, nongraded elementary school structures, non-pressured child centered developmental teaching strategies in elementary schools, or some other approach that specially addresses the developmental needs of children. However, with the increasing pressure to pursue the academic approaches of elementary school education, these ideas may be years in coming, if ever. Until then, the transitional first grade program serves as a good compromise and allows developmentally delayed children a second chance for a good start in first grade.

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APPENDIX A

EXHIBIT 1

PARENT QUESTIONNAIRE Student Number _____

Please respond to the following questions by marking the response that most accurately reflects your opinion.

	Strongly Agree	Agree	Sometimes Agree	Disagree	Strongly Disagree
1. I think my child's elementary school education thus far has met his//her needs.					
2. Every attempt has been made to secure the best possible education for my child.					
3. The school was very sensitive of my feelings when making the recommendation for a transitional first grade placement.					
4. I now believe the school was wise in making the recommendation to promote my child to T-1.					
5. I am very satisfied with the school's transitional first grade program.					
6. I am very satisfied wit the school's kindergar ten program.					
7. I was anxious about placing my child in transitional first primarily because of the damage of his/her self-esteem.					
8. I was anxious about placing my child in transi tional first primarily for other reasons.					
9. I was never anxious about placing my child in transitional first grade.					
10. I am very satisfied with my child's first grade education.					
11. I feel that my child's transitional first grade year was extremely helpful in my child's education.					
12. I think that promotion to the first grade instead of transitional first grade was the best possible placement for my child.					

	Yes	No
13. My child attended a preschool before kindergarten for at least six months.		
14. During the workday, my child spent the majority of his/her childhood at a babysitters or daycare facility before he/she attended kindergarten.		
15. Our family income during the year our child attended kindergarten was below $20,000.		
16. My child has been raised in a single parent home during some time of his/her life.		

17. My child's date of birth is _____.
Month - day - year

18. My child's race is _____.
(Caucasian, African-American, Oriental, Indian, Hispanic, Other).

APPENDIX B

EXHIBIT 2

Hilldale Elementary School
315 Peak Boulevard
Muskogee, Oklahoma 74403
(918) 683-1101

"Learning Today For Tomorrow"

April 1, 1991

Dear Parents,

Your child has been selected to be a part of a county-wide research project in conjunction with Oklahoma State University which investigates the effectiveness of transitional first grade programs. Your child's selection was due to either his/her participation in a Muskogee County transitional program or his/her referral to such a program. The results of this survey will be used to assist Muskogee County educators understand how parents feel about T-1 programs. Parent attitudes toward there programs are considered to be very important for the academic success of transitional students.

The information you provide will be extremely helpful in determining whether Transitional programs are effective. Your responses will not specifically identify your child, but will be combined with other responses on order to draw conclusions about the programs in general.

Your child will be given a special test that will measure his/her self-esteem. Self-concept is believed to be an essential component to school success. Test results will be shared with you to help you understand your child. Your help will influence the quality of education for tomorrow's children. Thanks for your cooperation.

Sincerely,

Larrie Reynolds, Research Coordinator

____ I give permission for my child to participate in the study. (Participating parents will receive all test scores and information collected about their child.)

____ I do not want my child to participate in the study.

VITA

Larrie G. Reynolds

Candidate for the Degree of

Doctor of Education

Thesis: TRANSITIONAL FIRST GRADE: THE COMPROMISE SOLUTION?

Major Field: Educational Administration

Biographical:

Personal Data: Born in Ft. Meade, Maryland, November 29, 1958, the son of John C. and June M. Reynolds.

Education: Graduated from Lawnsdoune Sr. High School, Baltimore, Maryland, in May, 1975; received the Bachelor of Science degree in Religious Education from Bethany Nazarene University in May, 1979; received the Master of Education degree in Education Administration from Central State University in May, 1983; completed requirements for the Doctor of Education degree at Oklahoma State University in July, 1991.

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