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This paper (1) reviews the literature on the relationship between entrance age into kindergarten and academic achievement and (2) reports a study of the effect of entrance age on school success. Some experts say that age alone is the best indicator of success. Others say that chronological age, mental age, intelligence quotient, readiness, emotional and social adjustment, or combinations of these factors are the indicators of success. A few experts say that age is not an indicator of success at all because each child can succeed if the school program meets individual needs. To explore these issues, an investigation compared the academic achievement at the third grade level of 20 early and 20 late entry kindergarten children. A statistically significant difference in achievement was found, with the late entry students scoring significantly higher on the Iowa Test of Basic Skills than did those who entered kindergarten early. In addition, findings revealed that 61 percent of the students who were retained in elementary or placed in modified primary classes were within the early entry group at the time of admission to kindergarten. (Author/RH)
Academic Achievement Among Early Entry Students

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Many well-meaning but ill-informed parents and educators have pushed young children into a formal educational setting before they were ready. A child who is "intelligent" or bright is not necessarily a child who is ready to begin formal schooling. When children enter school before they are developmentally ready, their chances of failure are dramatically increased.

There is an attraction towards early learning especially since 1957, when Sputnik provided the stimuli for the "curriculum shove-down." This has resulted in kindergarten now teaching much of what used to be presented in the first grade. Research is now starting to show that if a child is pushed too far too fast, that might actually make it harder for him to achieve compared to those that start a little later in life.

Uphoff (1985) in a study of 278 students found that 23 percent of the elementary school population had birthdays between June 1 and October 15, the cutoff date for that state. Another 9 percent were born in the same time period but had been held back for one year before starting school. The younger group made up 75 percent of the school's failure population, while none of the held-back children had failed a grade.

That study went on to state that although the younger group had a higher average IQ than the group that entered a year later, the latter group achieved the same or higher average cumulative percentile scores on the Iowa Test of Basic Skills. Therefore, the less bright but older and developmentally more mature pupils were able to do more with the ability they had than were the brighter, younger students.
Mawhinney (cited in Uphoff, 1985) reported a fourteen year longitudinal study that showed that approximately one in four of the very bright early school entrants was either below average in school or had to repeat a grade.

Forester (1955) reported that in his study of 500 K-12 students, the very bright but very young at the time of school entrance did not realize their potential. He explained that they tended to be physically immature or emotionally unstable, or they would cry easily. He also noted that they very seldom showed leadership skills. From junior high school on, 50 percent of them earned only "C" grades. On the other hand, generally the very bright late-school-entrance group excelled throughout their school careers.

The Anchorage School District Modified Primary Office (1985) reported that 42% of their entire enrollment of 451 were "early entry" students (students who entered kindergarten at less than five years and one month).

Children hold the future in their hands. The pressures and opportunities given or placed upon them have lifelong effects. We are still learning and gathering information. With this information people can make informed decisions about early entry and academic success.
Statement of the Problem

The purpose of this study was to compare the academic achievement of early entry students with late entry students.

In this study the word "academic achievement" was defined as the reading score from the Iowa Test of Basic Skills. "Early entry" students were those students who started kindergarten at less than five years and one month of age (with birthdays between August 1 and November 1). The "late entry" students were those students who were at least five years and seven months when they entered kindergarten (with birthdays between November 1 and February 1).

This study was conducted during the winter of 1986. The subjects were limited to two schools within the Anchorage School District. The study was limited to the scores obtained during the Spring 1985 ITBS testing period. The small sample size may be a limitation of this research.

It was assumed that the reading scores from the ITBS were indicators of school success.

Review of the Literature

Educators, psychologist, parents and the general public have all been asked their opinions, based on facts and the interpretations of those facts, about the "right" age to begin formal education. A review of historical studies, a position paper, comparative studies, causal-comparative studies, an experimental study and other related literature on the effects of early entrance into formal education upon academic achievement, demonstrates a continuing conflict in this area of education.
McGee (1978) concluded, from his historical study, that the time of entry into public schooling is nothing sacred. He noted that our current standards evolved from the combination of tradition and practical considerations and are based on the needs of the society at a given time. Current issues that influence the needs of the United States today include: a highly mobile society, an increase in families headed by a single parent and the increase of women in the work force. As a result of his study he states that if public schooling is acceptable for five year olds, that it should be acceptable for three and four year olds as well.

Spodek (1984) continued with a historic look at education. Around the 1830's infant schools were developed and children as young as eighteen months could be enrolled. Later, there was an increased emphasis on the role of the mother at home, greater concern for the balanced development of young children, and the growing bureaucracy of the public schools. Formal schooling during this period stressed better attendance, more disciplined classes, and a reduction of the financial burden of the schools. This led to raising the entrance age to six years. Kindergarten came to the U.S. in the later half of the nineteenth century. Spodek agreed with McGee that the "right" age for schooling should meet the needs of the society at a given time. He stated that the "Fireside Education" idea, or keeping children home longer, places a burden of guilt on women.
Moore (1984) in his opinion paper had very different ideas. He reports that from ancient times through the early centuries of this country's history, early puberty has been the "proper" time for formal education. He states that eight to ten years should be the age for formal education based on the facts that vision, hearing and the other senses are not ready for continuing formal programs until that stage of development. Early excitement turns to tired-of-school before they are out of third or fourth grades. Moore says that the state has taken over education and removed children from the home before they are developmentally ready for formal education. This, in his opinion, has led to: (1) a poorer education, as shown by the decline in literacy since the beginning of public education; (2) the creation of a generation gap, as a result of keeping children in institutions and away from parents; and (3) peer dependency and poor self-worth attitudes, because children spend more time with peers than with parents. Moore (1982) also wrote a paper on teacher burnout and stated that teachers feel worthy and secure only when they produce well-socialized students who achieve and are well-behaved. He stressed that this could not happen if children are pushed too hard too fast.

Elkind (1981) stated that schools hurry children because administrators are under stress to produce a better product. Research in Child development is overlooked and children are hurried into formal education. The teachers are held responsible for this increased learning. With current time limits and teacher-pupil ratio this hurried education encourages mass assembly line teaching that ignores individual differences in mental abilities and learning rates. The child who cannot keep up in this system, even if only because of immaturity, is often regarded as defective and is labeled learning disabled, minimally brain damaged or hyperactive.
Beattie (1970) reported that teachers frequently expressed concerns for the younger children's emotional and social well-being. Adjusting to the standards of group behavior, forming friendships with older children, being away from home for long periods, and meeting group standards are among their greatest concerns.

Hildreth (1946), a consulting psychologist, stated that at six years of age the child is considered to be ready for broader experiences than his home would provide. At that age the child could work and play with a group of children of his own age with the guidance of adults other than his parents.

Compulsory school attendance laws mandated a fairly narrow range in the kindergarten and first grade entrance age requirements. The question still remains as to whether chronological age (C.A.), mental age (M.A.), intelligence quotient (I.Q.), or other factors are the best indicators of academic success.

Bigelow (1934) carried out an experimental study of eighty-eight children who entered first grade before they were six years old and another group of thirty-nine children who entered when they were between six and six years four months. She grouped the students according to chronological age (C.A.) and mental age (M.A.) and then studied their academic achievement. She found that children less than six years old with an I.Q. of 120 or better would probably succeed in school. But, personality factors should also be considered. If a child was less than six with an I.Q. below 110 the chances of school success were very small. All the children with an I.Q. between 110-119 had a fair chance of success. The children between six years and six years and four months with an I.Q. of 110 or over had a very good chance for school success.
Then she compared their C.A. and M.A. to their success. She found that the children below six years with a mental age of six years ten months or above had a great chance of success. The children who were less than six but had the mental age of six to six years nine months still had a good chance at school success. And the children who were below six years and four months with a mental age below six years had practically no chance of success.

Partington (1937) selected two hundred eighty-four children. She studied the students whose achievements were lower or higher than their intelligence would indicate. It was found that many of the younger students (those entering the first grade as early as 5.0 to 5.5 years of age) do very well in school. While many of the brighter children in this younger group succeeded in school but, many of them were capable of doing better. The low chronological age was still a handicap to these children. It was also noted that it was not wise to hold back the older pupils (those who enter the first grade over seven years of age) even though their achievement was low.

Carter (1956) and King (1955) found that children who entered kindergarten or first grade at an early age had more academic and school adjustment problems than their older counterparts. King's study was based on a group of fifty-four younger children who entered first grade between the ages of five years and eight months to five years and eleven months and older children who entered first grade between the ages of six years and five months to six years and eight months. The children in this study had an intelligence quotient (I.Q.) between 90 and 110. They had all completed six years within the same school. The cumulative folder of each child was reviewed. Data was collected in the following areas: the total achievement scores, attendance, referrals and teacher comments.
King found that the younger children had more speech defects, nervous indications, and personal and social maladjustments than the older children. This would seem to indicate that a few additional months of chronological age at the beginning of school would be an important factor in academic, emotional and social success.

Brenner (1957) reported that some children encounter difficulty throughout school as a result of entering the first grade before they were mature enough to do first grade work. Four hundred fourth graders were selected by stratified random sampling from a larger population in order to control such variables as types of kindergarten programs. There were no repeaters. The Iowa Test of Basic Skills was used to compare the younger fourth of the class to the remainder of the class. Group 1 was the group of children who entered first grade before they were six or became six before November 1. Group 2 was the group of children who were over six years when they entered first grade. The research reported that the younger fourth of the class had a significantly lower mean composite score on the Iowa Test of Basic Skills than did the remainder of the class. It was also noted that I.Q. could not account for the older group having a larger composite score than the younger age group because the younger age group had a higher mean I.Q. than the older group, although it was not significant. The older group did have a significantly higher Mental Age. Mental age seemed to be a much better predictor of achievement than I.Q. at the fourth grade level according to Brenner.
Miller (1957) selected one hundred thirteen early entry children from kindergarten through seventh grade. They ranged from four years six months to eleven years and eight months. These children were children who entered before the normal age of entrance for their district. Their teachers rated them in the following areas: general health, illness, physical size, nervousness or anxiety, special ability, leadership, popularity, faults of personality, favorable personality traits, significant events in child's life, ambition, drive, persistence, judgement, self-confidence, conformity, father's occupation, and mother's activities.

The results from this study indicated that these children, in general, were well adjusted socially. She concluded that age was not as important in academic, social and emotional adjustment as many people thought. She stated that developmental differences varied so widely among children of the same age that each child must be considered individually.

Baer (1958) found that the younger children in his study received average ratings by their teachers on personal traits and they did not receive significantly different ratings on the problem inventory than their older counterparts. He reported a significant difference in grades and achievement scores between the two groups but not enough to consider holding the younger group back a whole year.

Hampleman (1959) selected fifty-eight sixth grade students. He created two groups to determine how the early entrance students (those who started school below six years) compared to later entrance students (those students who entered school at six years four months or older). He found that late school starters achieved slightly better than the early school starters but, the difference between the groups were not statistically significant.
In a study by Green and Simmons (1962) two hundred-thirteen white fourth graders were grouped into a younger group (those children who entered school before their sixth birthday) and an older group. They were matched for parental occupations and I.Q. The test results indicated that the older children had significantly higher mean scores on achievement tests than the younger children. The researchers would hasten to mention that it can not be concluded that the older students learned more because it can not be said that the two groups started out equal.

Carroll (1963) selected twenty-nine pairs of children from third grades in five public schools. They were matched on the following variables: sex, I.Q., socioeconomic status of family, and school attendance. Two major findings were that the older children made consistently higher scores than their younger classmates on achievement and that boys tend to find reading more difficult than the girls. This study suggested that a few months of additional growth and development might constitute an advantage to the child.

Dickinson and Larson (1963) conducted a similar study to determine the effects of chronological age at the time of school entrance on later school achievement. Four hundred-eighty fourth graders were selected by stratified random sampling to control the variables in their kindergarten experiences. There were no repeaters. The composite score of the Iowa Test of Basic Skills were used to measure achievement. They found that the younger fourth of the class had a significantly lower mean composite score than did the remainder of the class. Also, the younger group had a higher mean I.Q. than the older group, although it was not significant.
A similar study was conducted by Nimnicht, Sparks and Mortensen (1963). More than nine thousand students from eighty-four school districts were involved in this study. At the beginning of school each student was given the Lorge-Thorndike Test of Mental Maturity. Birthdate, father's occupation and the student's sex were also correlated. After thirty weeks of school the teachers reported on the success of the children by rating each as above average, average, or below average in success. The results showed a significant relationship between I.Q. and academic success in the first grade. The age at entrance into the first grade was a factor of success, but not a very strong factor. There was also a significant relationship between gender and success in the first grade. Girls tended to achieve at a higher level than boys.

Halliwell and Stein (1964) studied fourth graders. The younger group were those children who entered first grade at the age of 70 to 75 months and the older students were those who entered first grade at the age of 76 to 81 months. They found that the older students did significantly better in reading areas, spelling, language and arithmetic reasoning.

Binkley (cited in Beattie, 1970) conducted a study of culturally deprived children which involved several open ended questions. He studied the variables of entry age, readiness level, gender and race. He concluded that entrance age as it related to later elementary school achievement was not an extremely important factor. Readiness was the most significant factor.

Weinstein (1968-69) studied 250 children from a reeducation program for children who were found to be too emotionally disturbed to remain at home or school. The researcher found that the children who started first grade young compared to their classmates were more likely to be referred to a residential treatment center. If they are not seen as disturbed by the school, they would be more likely to fail a grade and to be rejected by their classmates.
Beattie (1970) measured the personal, social and academic adjustment of younger group children compared with the older group within a grade. The California Test of Personality, the Stanford Achievement Tests and the Otis-Lennon Mental Ability Test were given to 387 students at the end of third grade. The students were divided into four groups according to their age at the time of entrance into school. He found that the older students were significantly superior to the younger students on achievement test scores. But that, Mental age and emotional-social adjustment had a significant influence on school success.

Hedges (1978) pointed to the higher incidence of social, emotional, and scholastic problems among younger children than comparable children a year older. He specifically noted the ineffectiveness of early intensive drill in learning to read that is being pushed down into kindergarten.

Davis (1980) studied scores from the Comprehensive Test of Basic Skills of around 43,000 students. He collected data from the first, fourth and eighth grade test results. The findings showed that at the first grade level, achievement of six year old entrants were significantly higher than achievement of five year olds as indicated by mean scores in total achievement, reading, language and in math. At the fourth grade level the same results were found. But, at the eighth grade level there was a less significant difference. Reading was the only area of achievement that was significant related to age of entrance. He stated that this was more a function of sex than early entrance age.
DiPasquale (1980) decided that a written test might not be a true measure of a child's school success. He decided to review the referrals to the psychological services in his area. These children were actually having success problems in school. In his research he hoped to find significant factors that lead to the decline in success for these children. He grouped the children by grade, sex, reason for referral and birthdate. He found that children born late in the year and who are young for their grade were significantly more likely to be referred to psychological services for academic problems in the primary grades than are children born early in the year. It was also noted that boys mature later than girls with regard to school-related abilities. DiPasquale stated that grade repetition was complicated by its relatively unpredictable effects on self-esteem and confidence. He suggested remedial assistance until the child's achievement level is close to their peers.

Gredler (1980) stated that teachers expect a child who is younger and a male to automatically have more difficulties. Teachers act on their beliefs and therefore refer the younger ones for help. He says that children are unfairly labeled as having learning problems when actually it is a difference in maturity. Gredler states that it is foolhardy to expect the younger children to be equal to the older children on achievement measures after one or two years because they don't start out equal. He stresses individualized schooling from the start of formal education.
Peterson and Ayabe (1982) distributed teacher surveys to all kindergarten teachers in their district concerning changing the entrance date from January to September. They found that 90% of the teachers believed it should be September and a large percentage of teachers believed that chronological age was the best criterion for determining a child's readiness. They suggested that developmental readiness tests should also be given to the younger children tempered with consideration for social and emotional maturity.

Kalk (1982) studied students at nine, thirteen and seventeen years of age. The predictor variables to achievement were relative age, class age, sex, parental education, home environment, and type of community. He found that there was a significant higher achievement found among the older students at ages nine and thirteen but, by the age of seventeen there was no significant findings of advancement. It was also noted that the proportion of students retained one grade were significant for the relative younger students. He recommended clinical screening for several groups of children. If a district had December-February school entrance cutoff dates the highest risk groups included males in the youngest half of the class. For districts with September-November cutoff dates, the highest risk group included males in the youngest third of the class.
Simner (1983) did not agree with the theory that a few extra months of maturity in age would make a significant difference in school achievement. He completed three studies to see if it was likely that increasing kindergarten entrance age from 57 to 60 months would reduce school failure in the younger children. One of the studies took one hundred twelve non-repeating kindergarteners from five schools in a lower socio-economic area of a medium size urban center. They were given the Printed Performance School Readiness Test (PPSRT) along with the Draw-A-Man Test (DAMT), which is scored in less than ten minutes by a non-professional staff. These scores were compared to a modified version of the Criterion-Referenced Measurement Program in Reading and Mathematics (CRMPRM) by Alkin. Followed by the letter identification and word identification subtests from the Woodcock Reading Mastery Tests (WRMT) and the addition, subtraction, numerical reasoning, and word problem subtests from the Key Math Diagnostic Arithmetic Test (KDAT) at the end of first grade. The results showed a higher correlation between Pre-test and academic achievement than the correlation between the children's age of entrance into school and academic achievement. Simner reported that the entrance age should not be raised because it would force the few failure-prone children who are under 60 months in September to remain at home for an additional year, which by itself, might further reduce the child's chances of experiencing later school success.
Summary

History tells us that our educational system meets the needs of a society at a given time. Children, parents, teachers and administrators are all part of our society. The needs of each of these various groups may conflict to some degree. Even the interpretation of the needs and their solutions may conflict.

Some people state that the child needs time to mature in a caring home environment before entering formal education. They feel that seven or eight might be an optimum age to begin school. While others report the need of society to provide care and education away from the home at an early age.

Teachers and administrators are held responsible for the academic achievement of all the students within their care. The degree of learning has increased in the "curriculum shove-down." The child who can not keep up with the flow meets with frustration and failure. Many studies have been done to find indicators for a failure-prone student and to offer early prevention. The problem seems to be in the identification of those indicators.

Researchers have studied both the children who have entered school before the "normal" age for a given district and the "normal" entry children who are grouped according to their age at school entry and compared. There is still no agreement as to the best indicator of academic success.

Some experts say that age alone is the best indicator of success. Others say that chronological age, mental age, intelligence quotient, readiness, emotional and social adjustment or combinations of these are the indicators of success. While a few experts say that age is not an indicator of success at all, because each child can succeed if the program meets their individual needs.
METHODS AND PROCEDURES

In an effort to obtain a random sampling that would represent the Anchorage School District within a limited time frame, two presumed representative schools were selected. A stratified random sample was gathered from within these schools.

Students were selected on the basis of their age at the time of entry into kindergarten. The data was stratified into two groups which were "early entry" students who entered kindergarten at less than five years and one month of age (with birthdays between August 1 and November 1) and "late entry" students who were at least five years and seven months when they entered kindergarten (with birthdays between November 1 and February 1). Twenty students from each group were randomly selected.

Iowa Test of Basic Skills reading scores were obtained from the cumulative files for each student. These scores were assumed to be indicators of school success. Data was also gathered on each student's gender and Cognitive Abilities Test, verbal and nonverbal scores. This additional information was gathered to ascertain if these variables were significant in the success or failure of these students.
In an effort to maximize the sample size, data was collected from the fourth, fifth and sixth grades. All information was taken from the third grade scores of each student within the sample. To qualify for the sample, the student needed to have been within one of the target groups and had attended a school within the Anchorage School District for at least two years. Also, information on all the variables had to be available. Students who were in the Modified Primary Program or retained were not included in this part of the study.

A t-test of the difference between independent means was run to determine if there was a significant difference (p=0.05) between the entry status and the I.T.B.S. reading scores. A t-test was also run to determine if there was a significant difference (p=0.05) between the entry status and both the verbal and nonverbal C.A.T. scores. A fourth t-test was run to see if gender was a significant variable compared to the I.T.B.S. scores. This was followed by a t-test comparing the "early entry" students' gender with their I.T.B.S. scores and the "late entry" students' gender with their I.T.B.S. scores.

In addition to the core study, Entry Status data was collected on the students within the fourth, fifth and sixth grades of the two schools, who were retained or had Modified Primary during their school experience.
RESULTS

The data was analyzed as it pertained to academic achievement among "early" and "late" entry students. Entry Status ("early entry" students who started kindergarten at less than five years and one month of age and "late entry" students who started kindergarten when they were at least five years and seven months) was compared to the means of the Iowa Test of Basic Skills reading scores using a t-test for independent samples (p=0.05). A statistically significant difference was found between the "early entry" students and the "late entry" students in academic achievement based on the Iowa Test of Basic Skills reading scores as illustrated in Figure 1. The complete computer read out may be found in appendix A1.

Figure 1

ANALYSIS OF ENTRY STATUS COMARED WITH THE ITBS-READING SCORES

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Early entry&quot;</td>
<td>20</td>
<td>4.765</td>
</tr>
<tr>
<td>&quot;Late entry&quot;</td>
<td>20</td>
<td>5.5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
<td>5.133</td>
</tr>
</tbody>
</table>

STUDENT'S T = 2.534  DF = 38

No statistically significant difference was found between the entry status of the student and their Cognitive Ability Test scores in each group, in either the verbal or nonverbal areas as seen in Figure 2 and Figure 3.
Figure 2
ANALYSIS OF ENTRY STATUS COMPARED WITH THE C.A.T. VERBAL SCORES

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Early entry&quot; students</td>
<td>20</td>
<td>113.7</td>
</tr>
<tr>
<td>&quot;Late entry&quot; students</td>
<td>20</td>
<td>114.95</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40</td>
<td>114.325</td>
</tr>
</tbody>
</table>

STUDENT'S T = .373 DF = 38

Figure 3
ANALYSIS OF ENTRY STATUS COMPARED WITH THE C.A.T. NONVERBAL SCORES

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>MEAN</th>
</tr>
</thead>
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<tr>
<td>&quot;Early entry&quot; students</td>
<td>20</td>
<td>112.45</td>
</tr>
<tr>
<td>&quot;Late entry&quot; students</td>
<td>20</td>
<td>116.2</td>
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<tr>
<td>TOTAL</td>
<td>40</td>
<td>114.325</td>
</tr>
</tbody>
</table>

STUDENT'S T = .972 DF = 38

No statistically significant difference was found between gender and the ITBS-Reading scores of each group as shown in figure 4. This data was subdivided by entry status as shown in Figure 5 and Figure 6. No statistically significant difference was found between gender and the ITBS-Reading Scores of each group when divided into subgroups by entry status.
### Figure 4
**ANALYSIS OF GENDER COMPARED WITH ITBS-READING SCORES**

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>19</td>
<td>5.084</td>
</tr>
<tr>
<td>Males</td>
<td>21</td>
<td>5.176</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>40</td>
<td>5.133</td>
</tr>
</tbody>
</table>

*Student's T = .293  DF = 38  p = .768*

### Figure 5
**ANALYSIS OF "EARLY ENTRY" BY GENDER COMPARED WITH THE ITBS-READING**

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>11</td>
<td>4.964</td>
</tr>
<tr>
<td>Males</td>
<td>9</td>
<td>4.522</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>20</td>
<td>4.765</td>
</tr>
</tbody>
</table>

*Student's T = .887  DF = 18  p = .6093*

### Figure 6
**ANALYSIS OF "LATE ENTRY" BY GENDER COMPARED WITH THE ITBS-READING**

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>8</td>
<td>5.25</td>
</tr>
<tr>
<td>Males</td>
<td>12</td>
<td>5.667</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>20</td>
<td>5.5</td>
</tr>
</tbody>
</table>

*Student's T = 1.362  DF = 18  p = .1875*
In addition to the core study, the records of students who were retained or had Modified Primary were analyzed, and it was found that 61% of these students were "early entry" students as seen in Figure 7.

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>N</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Early entry students&quot; M.P. or Retained</td>
<td>20</td>
<td>61%</td>
</tr>
<tr>
<td>&quot;Late entry students&quot; M.P. or Retained</td>
<td>2</td>
<td>6%</td>
</tr>
<tr>
<td>All other students</td>
<td>11</td>
<td>33%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>33</td>
<td>100%</td>
</tr>
</tbody>
</table>
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The literature portrays the conflicts found in the question about the measurement of academic achievement among "early entry" students. In this study, it was assumed that the ITBS-Reading Scores at the third grade level were a measurement of academic achievement. This research showed that there was a statistically significant difference between the "early entry" students and "late entry" students and their academic achievement, with the "late entry" students scoring significantly higher.

This study did not find a statistically significant difference between the gender of students and their academic achievement. A larger sample may show a significant difference between girls and boys, especially in the early entry group. The fact that girls mature at an earlier age is well documented. Possibly, gender differences are not significant at the third and above grade levels.

This research also showed that a large percentage of the students who were retained or placed in Modified Primary were within the "early entry" age at the time of admission to kindergarten.
The dilemma still remains as to how to help the "early entry" students have a successful school experience. Some have talked about moving the cut-off date from November 1 to September 1. This would give these children a few more months to mature before entering formal schooling. Opposition to this policy states that this would unjustly delay education to those who were able to handle formal schooling. Others have recommended readiness screenings or completely individualizing education. Still others just want parents to be able to make an informed decision about the time of entry into kindergarten, that will add to their child's chance for academic success.

Many things must be taken into consideration when working on a solution to educational problems. Money, current trends and issues and the community profile are some of these considerations. This research confirmed that there was a problem among the "early entry" students in reaching their maximum academic potential. Education deals with people. Therefore, many educational concerns deal with educated judgment calls. This researcher would recommend further studies, the consideration of the entry cut-off date being September 1, with screening being available for the high risk students and for those students who would not be at least five years old when they entered kindergarten and who chose to enter early. Also, a "kindergarten round-up" would be recommended for all students and parents. This would be a time for informal screening, a parent informational session and a general introduction to the school. This would be followed up with individual professional initiatives to encourage academic success among the younger children.
Bibliography


Nimmricht, Glen; Sparks, Jack and Mortensen, James (1963). Is there a 'right' admission age? The Education Digest, 28, 34-36.


