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Relationship between early entrance age and "at-risk" students in later years

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RELATIONSHIP BETWEEN EARLY ENTRANCE AGE
AND "AT-RISK" STUDENTS IN LATER YEARS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education

by
Victoria Ann (Sanabria) Budinko
September 1995
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Approved by:

Dr. Ruth Norton, First Reader

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9/11/95

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The purpose of this study was to determine the relationship that existed between school entrance age and success in the school experience.

The hypothesis was that children who were older upon entering school for the first time, were more successful and less likely identified as "at-risk" than were children who entered school at a younger age. The historical background which established the use of the present chronological age system was traced along with the philosophies on which it was based. If the hypothesis could be verified by research, the use of chronological age as the criterion for school entrance and grade placement would need to be reevaluated.

Research has supported the view that chronological age alone should not be the sole criterion for school admission. Recommendations and alternatives which could help students meet with success were examined and presented.
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To my mother for all the support and typing help. To Bob for helping me finish and helping me over the hill. And, to my daughter Lisa for just being herself.
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CHAPTER 1

Kindergarten is the first formal school experience for most children. School districts in the state of California allow children to start kindergarten in September of the year in which they turn five-years-old on or before December 2nd. This procedure, though convenient and sensible enough on the surface, is based on the fallacious belief that all five-year-olds have basically reached the same state of development and, therefore, are ready for a certain kind of schooling. Ames and Ilg (1963) of the Gesell Institute comment that:

We know that infants do not all creep at the same age, walk at the same age, talk at the same age. But as the child grows older we forget our common-sense wisdom and assume incorrectly that by reaching a certain birthday age a child automatically becomes ready for the work of a certain school grade. (p. 7)

Many parents assume, that if their child fits into this age category they are required to enroll them in school or, at least, that since this is the school district's policy they believe it must be the right age for their child to start school. The fact that a child is immature, or for some other reason not ready for the regimen of the classroom, is often overlooked. Well-meaning parents have wanted to give their children all the advantages they felt the school setting provides. Social pressure and the everyone's doing it syndrome have also been major influences
on the problem of placing children in school before they have matured and are ready for formal education.

Parents often demand more from their five-year-olds because they have attended two or three years of pre-school (Kantrowitz & Wingest, 1989). Parents, the media and schools may all be responsible for pushing children beyond their developmental limits (Shank, 1990). Problems may occur when adults try to rush children before they are ready.

Statement of the Problem

According to Elkind (1981), failure in the early years of the school life of a child has an effect on his/her total school education. Children who are presented with reading before they are developmentally ready experience repeated failure. Then, when they are finally capable of learning to read, they refuse to try. Ilg and Ames (1963) comment that a child in this situation could come to hate school and see himself as a failure. Slavin, Karweit and Wqasik (1993) maintain that “success in the early grades does not guarantee success throughout the school years and beyond, but failure in the early grades does virtually guarantee failure in later schooling” (p. 349). It seems very important that a student starting off on one of the most important ventures of his life (if not the most important) should begin on a positive note. This holds true for anything that a human being seeks to accomplish. Once a person has felt success he/she is better able to meet defeat and strive for something better. Balk (1983) suggests that developmentally young children learn to use failure to judge themselves as personally incompetent rather than using it as feedback to
improve performance. Thus, it is very important for them to be given a chance to find some success at school. If they have to start school before they are mature enough to, they are not given this chance. According to Kantrowitz and Wingist (1989), “Schools that demand too much too soon are setting kids off on the road to failure” (p. 53).

Roth, McCaul and Barnes (1993) state:

...several authors (Hahn, Danzberger, & Lefkowitiwzt, 1987; Slavin 1989; Slavin & Madden, 1989) have argued that efforts at early intervention are essential in any effort to seriously attack the problem of at-risk children. Both the studies concerning at-risk students and those concerning prereferral suggest that the most meaningful model of intervention would be one that would increase successful school experiences and ‘intervene’ (i.e. appropriately program) before serious educational problems develop. (p. 349)

Research Questions

The purpose of this study is to review the literature regarding school success based on chronological age entrance vs. developmental age entrance. This study will examine children that have been identified “at-risk” (i.e. -- they have been referred to a Child Study Team or are enrolled in Special Education) and see if there is a significant relationship to entrance age. The study will attempt to examine other alternatives to chronological age entrance to minimize failure of students not yet ready for formal schooling.
It is the position of this study that chronological age alone is not an adequate basis for determining school entrance. This position is supported by Lopez's (1988) description of a program which was researched and developed by the Gesell Institute of Human Development which holds that, "school readiness is based on the functioning of each child as a total organism with recognition of the social, emotional, intellectual and physical aspects of the child as interdependent" (p. 46).

Significance of the Study

This study should indicate a need for educators, parents, and legislators to reexamine their beliefs and the procedures used to determine school entrance. Chronological age alone cannot be the sole criterion for kindergarten entrance, but if it is, alternatives must be found that will ensure that all future generations of children will meet their first school experience with success.
CHAPTER 2

Review of the Literature

This chapter looks at the literature as it describes the past and present attempts to discover the proper age at which a child should begin formal schooling. The history of early childhood education is examined as the evolution of school entrance is traced. The factors or criteria used to determine school entrance and grade placement are analyzed. Empirical data and studies of early, as in 5 years old before December 2, and late, 5 years old after December 2, school entrants are included. The findings and recommendations on the age at which a child should start school will be summarized.

The history of early childhood education described in this chapter deals with the theories of Plato, Comenius, Rousseau, Pestalozzi, and Froebel. Specifically, it deals with their concepts of the ideal time for schooling to commence, what the curriculum should be at various ages, and the relationship between home, family, and education of the child. Their ideas relevant to the purpose of this study are described with some background for their theories.

The Greek philosopher, Plato (427-327 B.C.) recorded his concept of the ideal society in his book, The Republic. He conceived of several stages of education. Barrow (1975) describes Plato's outline of two specific goals for his system of education in the ideal society: (a) to promote virtuous character among citizens, (b) to form attitudes at an early age that will benefit society at large. The first stage of education Plato viewed as a means to socialize children and develop healthy attitudes and habits. He designed the first stage of
education for children six years old and younger. He recognized the importance of the early years when Weber (1970) quoted Plato's writing:

... the beginning is the most important part of any work, especially in the case of a young and tender thing, for that is the time at which the character is being formed and the desired impression is most readily taken. (p. 36)

John Amos Comenius (1592-1670), a Czechoslovakian theologian and author, saw education as an instrument for social reform and wished to make it available for all young people. According to Sadler (1969) Comenius' great objective was, "... every child should be fully educated to be a complete human being" (p. 47). Eller (1956) also writes that Comenius felt one's entire life from infancy on should be spent learning. He was concerned more with content than with method and he considered language the primary tool for acquiring knowledge. As a result of his extensive writings on the subject, Comenius has been referred to as the father of modern education (Eller, 1956). In his schools, he was concerned with more than just the mind of the child, he also recognized the need to nurture the body and soul.

The responsibility for the lifelong process of learning falls on the whole community, according to Comenius. He inferred that every man should in some way teach others, and that the very best men and women should teach the young in schools. He observed that society as a whole was primarily educative and transmitted values to the young. He felt that this whole process of socialization began with the family. Therefore, the family group was prominent
in his plan. He recognized the importance of the parents, particularly the mother, in the early training of children (Eller, 1956).

Comenius’ curriculum was basically the same at every age level. The teaching followed a concentric plan from infancy to adulthood, but the approach was different from one age level to the next. He followed the principle that each age should be given only what it is fitted to do, within the common framework. His levels were similar to Piaget’s stages (Sadler, 1969).

For purposes of this study the most crucial part of Comenius’ theories are related to his first stage from birth to six stressing the sensori-motor and character. He recognized that the first and most important teacher a child would have was his mother. He thought the most important years in molding a child were from birth to six. On when and how children should make the transition from home to school, Eller (1956) quotes Comenius, “I do not advise that children be removed from the mother and delivered to teachers before their sixth year. . . .” He likens children to flowers, “. . . the early ones fade soonest while late ones acquire greater strength and durability” (p. 116). Eller continues with Comenius’ warning against pushing children ahead. He recognized that there are some capacities that develop slower and may not even be developed enough for instruction in the seventh and eighth years.

The next educator to offer a viewpoint on child development was Rousseau. In his book *Emile* he wrote about his concepts of the ideal education for children and youth. He placed the blame for man’s problems and evil on the parents and teachers who failed to allow children’s innate goodness to unfold. He defined the process of education as the art of forming men, an art he recognized that was sadly neglected (Sahakian, 1974).
Johann Heinrich Pestalozzi (1746-1827), a Swiss educator, enhanced Rousseau's ideas and added to them. He also placed the concept of nature at the very base of his philosophy of education, believing in human benevolence. He outlined a specific theory of natural education. He also delineated laws governing the art of instruction which are still in use today. The environment and sensory learning were integral parts of his theory, stressing thinking and doing (Gutek, 1968).

Pestalozzi criticized formal schooling which started in the child's sixth year, because it deprived the child of natural experiences. Pestalozzi, as quoted by Gutek (1968), described the problem as follows:

We leave children, up to their fifth year, in the full enjoyment of nature; we let every impression of nature work upon them; they feel their power; they already know full well the joy of unrestrained liberty and all its charms. The free nature bent which the sensuous happy wild thing takes in his development, has in them already taken its most decided direction. And after they have enjoyed this happiness of sensuous life for five whole years, we make all nature around them vanish from before their eyes; tyrannically stop the delightful course of their unrestricted freedom, pen them up like sheep, whole flocks huddled together, in stinking rooms; pitilessly chain them for hours, days, weeks, months, years, to the contemplation of unattractive and monotonous letters (and, contrasted with their former condition), to a maddening course of life. (p. 100-101)
Unlike Rousseau, Pestalozzi placed great importance on the part the parents had in fostering love in the child. He saw the mother-child love relationship as central to the development of all other emotions. His teaching methods were generally permissive. Significant to this study, he tried to duplicate the home environment in his schools. He believed in the natural goodness of the child, as did Rousseau. He coined the term elementary education, referring to a basic or essential education (Gutek, 1968). Pestalozzi was a humanitarian in the fullest sense of the word. He tried to impart emotional security and love to his pupils and felt that the personality of the teacher as well as the method used were important.

Friedrich Froebel (1782-1852) was born in Germany. He was a student of Pestalozzi's for a short time in 1808. He spent many years as a student in various schools and universities. Religion played an important part in much of his early education.

Froebel often reflected on various theories of education and eventually found that teaching was his calling. He became a tutor to a few pupils at first, and later to his own nieces and nephews when his brothers died. He worked for a time at the Frankfurt Model School as a teacher in the middle classes. These practical experiences led him to further studies which he hoped would lead to finding an underlying connection or unity of all things (Lawrence, 1969).

In 1837, Froebel opened the first garden of children in Blankenburg, Germany, for which he has been named the Father of Kindergarten. After his work with nine- and ten-year-old children who seemed to have bad habits of learning and conduct that were difficult to change, he determined that the early years were of importance in schooling (Lawrence, 1969). He also recognized
how valuable it would be to train those who care for young children in the proper way to nurture a child's love of learning.

Froebel's kindergartens were child-centered in concept. He stressed music, play, and experimental learning. Like Rousseau and Pestalozzi, he believed in the natural goodness of children. He cautioned against hurrying a child through his stages of growth. Recognizing this tendency in adults, he expressed his concern as quoted by Lawrence (1969):

The child, the boy, man indeed, should know no other endeavor but to be at every stage of development wholly what this stage calls for. Then will each successive stage spring like a new shoot from a healthy bud; and at each successive stage he will with the same endeavor again accomplish the requirements of this stage; for only the adequate development of many at each preceding stage can effect and bring about adequate development at each succeeding later stage. (p. 141)

In other words, Froebel is describing the concept of readiness. That is, new ideas should only be presented to children when they have demonstrated that they have mastered the steps or criterion needed to be successful at the next level.

Froebel also knew the importance of happiness and a good solid relationship between the teacher and the pupils. He sought to lend unity to education and life outside the classroom, so students wouldn't view learning as something done only within the walls of the school. He stressed the importance
of self-activity as an indicator that the child was utilizing ideas in a meaningful way. He likened children to plants and educators to gardeners who should nurture and cultivate the young as they grow and unfold.

Froebel developed curriculum and materials for the earliest years when mothers could guide their infants. He recognized that the child's development was both continuous and cumulative, and that the beginnings are most vital to later growth. Lawrence (1969) tells us Froebel attributes problems that show up later in the personality to inadequate handling in the early years:

Thus, the most significant period for education is just that of infancy and the pre-school age which conventional educational doctrines had so commonly neglected; and, the phase of the very greatest moment is that earliest one when the infant is still wholly or mainly under his mother's care, so that it is she who is the most important of educators. (p. 194)

He did not seem to advocate removing the children from their homes and mothers earlier, but simply that mothers and educators of young children would be trained to recognize signs of readiness and present activities and experiences appropriate to the child's growth.

Thus, from these four philosophers, the following points significant to the purpose of this study are:

1. Each philosopher held the belief that the early years were extremely important in forming the intellect and personality of the child.
2. The concept of stages permeates each theory discussed. The first stage generally was referred to as infancy and extended from birth through six years old, hence, we have the beginnings of formal instruction at age six.

3. Comenius, Pestalozzi, and Froebel seemed to concur on the importance of the role played by the family, specifically, the mother, in fostering normal social, emotional and intellectual growth.

4. Several of the writers warned against rushing children in the normal developmental stages or maturation process. Along the same lines, they were concerned that different approaches be used in teaching children at various stages and with materials appropriate to their level of understanding.

The beliefs of these philosophers became the blueprints for many of the schools that began emerging. Robert Owen (1771-1858) was a Scottish cotton mill owner and pioneer of infant schools from 1816-1824. These schools were influenced by the writings of European educators, Pestalozzi and Rousseau. He established an infant school for the children of his factory workers. This first school stressed singing, dancing, playing and oral comprehension of passages read to the children. Owen’s efforts and those of his followers led to the spread of such schools in London and other parts of England. At first, most of the schools were privately supported by philanthropic groups, but after 1838, they became funded by the government (Lawrence, 1969).

Societies such as the Home and Colonial Society and the British and Foreign School Society stood up for the rights of the child. Following the writings of Rousseau and Pestalozzi, they stressed the need for a special approach with children. These societies believed that children were taught best at home by their parents, but during the Industrial Revolution they recognized
the social need to provide care for the young children of poor working class families. Such societies were instrumental in insuring training of teachers for the schools. At this stage in its history, England was definitely ready to accept the new education in the form of kindergarten.

In the 1900s, in England, some of the important features used in most kindergartens were the garden, as in Froebel's schools, a sandpit for play and music, rhymes and singing. The children from three to five years old were involved in the schools. Some of the schools had cooking activities and pets that the children cared for. In 1917, the name of the People’s Kindergarten in Birmingham England was changed to Nursery School (Heffernan, 1971).

Rachel and Margaret McMillan were very influential in developing nursery schools and raising the standards of health care and nutrition in the schools. Together, they opened the first nursery school in 1914 in London, and worked for the passage of the Education Act of 1918 which had a provision for nursery schools. In 1923, a Nursery School Association was formed with Margaret McMillan as its President. These two women did much to upgrade the quality of care in the British infant schools in general. The successful combination of nursery and infant schools eliminated the unnecessary and difficulty transition from one situation to another (Heffernan, 1971).

At the same time that England's schools were undergoing change and refinement, the United States was developing an educational system of its own. The U.S. borrowed ideas to be sure, some from Europe, others from England, but many were original ideas developed by American educators.

In 1856, a student of Froebel's, Mrs. Margareta Shurz, opened a German-speaking kindergarten in Watertown, Wisconsin, for children in her
neighborhood (Lawrence, 1969). This was the first early schooling in the United States. The first English-speaking kindergarten was started in Boston in 1860 by Ms. Elizabeth Peabody and her sister Mrs. Mary Mann. By 1870, there were ten or twelve kindergartens in the United States, but the first public school kindergarten didn’t open until 1873 in St. Louis. The National Education Association formed a department of kindergarten in 1874. Most of the earlier programs were based on Froebelian concepts. Susan Blow was the founder and a great American exponent of the Froebelian-style kindergarten. She was one of the defenders of the Froebel oriented schools when they were criticized by John Dewey and his supporters. 1880-1890 saw the greatest spread of kindergartens in this country as a result of the large number of immigrants; the early schools were needed for the betterment of the families (Heffernan, 1971).

By the 1900s, the organization of kindergartens had become too teacher-centered and regimented for progressive-minded educators. John Dewey and his followers reconstructed the kindergarten curriculum as well as the organization of the classroom and methods to be used. Dewey developed many of his ideas while working at a Laboratory School which he established at the University of Chicago in 1906. This school included a sub-primary class of four- and five-year-olds. Dewey retained some of Froebel’s ideas, such as teaching with an emphasis on doing, observation, and natural development. The changes were chiefly in the areas of social and emotional growth. He believed in having more free play, freedom of choice in activities and less structured social interaction. One of Dewey’s followers, Standley Hall, introduced child study groups and the practice of studying one area of science or nature for an entire week with all activities having a common theme. Dewey’s influence and
his followers along with other factors, ushered in what was known as the Progressive Education Movement in the 1920s. The movement was opposed by the conservatives who sought to retain the status quo, or the Froebelian concepts without the Dewey modifications (Lawrence, 1969).

The early schools at this point in time were not considered part of the mainstream of formal primary education in the United States. These experiences were looked on merely as opportunities for strengthening the moral and social behaviors in young children (Weber, 1970). At this time (1920s) the chronological age of five seemed to be the most popular and widely used entrance age for kindergartens in the United States. However, some schools extended their entrance ages downward or upward by one year.

In 1931, Morphett and Washburne attempted to discover the period in development when, as a rule, the learner has the best chance of learning to read. This influential study concluded that:

> It seems safe to state that, by postponing the teaching of reading until children reach a mental level of six-and-a-half years, teachers can greatly decrease the chances of failure and discouragement and can correspondingly increase their efficiency. (p. 503)

Other authors also laid claim to finding a minimum age of six, six-and-a-half, and seven as the required mental age for successful reading (Bigelow, 1934; Witty and Kopel, 1936; Dolch and Bloomster, 1937).

The use of nominative data to plan curriculum and determine the needs of children was an important development in the 1930's. Much of these data was
developed by Arnold Gesell at the Yale Clinic. Weber (1970) quotes Gesell's picture of the average or normal kindergarten child was one who had "... a short attention span, good large-muscle coordination but little control of the finer muscles, a vocabulary size of two thousand words, and so forth" (p. 63).

Gesell felt that early childhood education was as important as any other step in the system. He established the Gesell Child Guidance Nursery at Yale University in the 1920s, as a model program to study children's' development. Many other colleges and universities had nursery schools that also served as study centers. Gesell (1925) determined that a child's brain reaches most of its mature bulk at age six. He concurred with other writers in the field of early childhood that the child's mind, character and spirit advance more rapidly during the formative preschool period than during any other period of growth. Durkin (1976) wrote the following:

Psychologists also were a reason for too little change over the years. Psychological conceptions of human growth and development changed very little from the early 1920s to the late 1950s. Supported by Gesell, his students and his disciples, the popular view during the 1940s and 1950s was like the popular view of the 1920s and 1930s: Readiness for various tasks, including reading, results from maturation; therefore, the passing of time is the solution for problems connected with a lack of it. (pp. 72-73)
Then in the late 1950s and into the 1960s the criticism of American Education was renewed with strength. Sputnik was launched and books like *Why Johnny Can't Read* were published. The elementary school curriculum was pushed down, students were expected to learn more at an earlier age and the trend to accelerate childhood emerged. Educators and parents began to believe "earlier is better" and that an earlier start in academics would lead to more success in later life. The state report "Here They Come Ready or Not" (1988) wrote about this push, "Early childhood education lost its innocence and special status as it was abruptly shoved into the economic, political and social spotlight" (p. 1).

In the sixties theories of intelligence and learning were being reintroduced that would have an effect on early childhood schooling and innovative programs were being developed and introduced. One of the most prominent, widely-read and reported-on theorists in educational research was Jean Piaget. Born in Switzerland in 1896, Piaget was involved in various fields of study for over fifty years. His writings on intelligence and developmental psychology have been around since the thirties and early forties. However, they were not widely accepted or applied in education until later. His work was originally criticized for lack of validity and using improper research methods; however, his findings have been retested and validated by researchers with various populations of students from different cultures (Lavatelli, 1970).

Piaget recognized that there were no fixed ages at which the behaviors described in his stages appear. He acknowledged that the relationship between chronological age and developmental stages of children was relative to the society, or environment in which the child was found. For example, in
Switzerland, where his observations first took place, children at the ages of seven or eight were performing tasks which indicated they were at the stage of concrete operations. Impoverished children of Martinique were several years older when they could perform the same tasks. What he stressed was one stage must follow another, the sequence was the important thing to consider, and the average ages were variable (Lavatelli, 1970).

Evans (1975) saw the findings of Piaget's work similar to the findings of Comenius. Each included the ideas that: (a) stages do exist, (b) they must follow one another sequentially, (c) they can be delayed, and (d) it is very difficult to speed them up or accelerate them. There is a readiness process involved for each stage and the child is always in the process of working toward the next stage or improving on the stage he is in. There may be regressions back to a lower level in some instances. In their book, Better Late Than Early, Raymond and Dorothy Moore (1975), reported that Piaget refers to acceleration as the American question. They go on to quote Piaget's response to acceleration "... it (the child's brain) probably can, but should not be, speeded up" (p. 101). Evans (1975) also tells us Piaget would rather see children's development progress naturally and completely in a balanced way without overemphasis on any area.

David Elkind has applied Piaget's concepts to the study of perceptual ability and how it relates to reading. He argues that two of our most frequently used methods of reading instruction, "look-say" and phonics, may be inconsistent with the child's perceptual development. He recommends perceptual pretesting and training for children prior to beginning reading. Or, at least, assessment for possible perceptual problems in cases where early
reading difficulty has already occurred. A third alternative, proposed by his study, would be to delay formal instruction in reading for those whose perception is underdeveloped, until the necessary skills either develop normally or are remediated by perceptual practice designed to sharpen the needed skills.

Readiness is an important concept to the Piagetian method. Learning depends on the child's existing stage of knowledge. Concepts are built one on the other and the foundation must be laid. When simple concepts are lacking it would block the learning of a more difficult concept (Lavatelli, 1970).

A second European-born educator whose work was revived with the growth of early childhood education programs, was that of Maria Montessori. Born in Italy in 1870, she spent many years pursuing studies in fields such as medicine, engineering, and biology. She later turned to philosophy, pedagogical anthropology and psychology. Her interest in education started as a result of working with deficient children in a psychiatric clinic and state school. She studied the work of Sequin and Itard who are acknowledged today as pioneers in special education (Orem, 1974).

Montessori developed special educational methods for working with these retarded children and she was rewarded when they passed the tests in reading and writing that were designed for normal children. She used her methods and materials to even greater success with normal but perhaps environmental deprived slum children in the Casa de Bambini House of Childhood in 1907. The main features of her method, like Pestalozzi's, were: freedom, activity, observation and self-discipline (Orem, 1974).

The preceding discussion covers over 300 years of studies by well-respected people in the field of child educational psychology who all believe in
the theory that children pass through some kind of developmental stages as they learn new things. But even with all this knowledge, children are placed in a new learning situation, namely school, with no evaluation of their developmental readiness but placed there because they have reached a certain chronological age.

Results of a questionnaire published in the Research Bulletin of the National Education Association in February, 1959, indicate the average admission age for pupils in first grade was five years, eight or nine months. The range of ages extended from five years, three months to six years, eight months. It referred to a number of studies which indicated that older children tended to perform better in school. There were several school districts which were considering changing their entrance deadlines, moving them earlier in the year so that more children would be fully ready for first grade. Some of the respondents indicated they felt that age was an inadequate criterion for admission and would prefer to use mental or social maturity as an indicator of readiness for school ("School Admission & Problems", 1959).

Shortly after the NEA survey, a report from the state of New Jersey, indicated concern for the same problem. The major concerns from the New Jersey report according to Gelles (1959) are:

1. Children do not mature at a uniform rate.
2. Readiness, development, maturation, and growth are variables that are interchangeable.
3. Studies reveal that younger children are not ready to profit from school experiences and negative side effects may result.
4. Reading authorities generally agree that children who are full six and a half years old experience fewer problems learning to read.

5. Physical factors such as farsightedness in young children, and undeveloped small muscles must be considered.

6. The importance of attitude which can be affected by premature exposure and practice should be remembered. (p. 30-31)


Age is only one determinant of growing powers and an exceedingly fallible means of building a single curriculum for all children. Instead, we need to look at a host of other factors which make each child a unique person. (p. 123)

In their book, *Better Late Than Early*, the Moores' premise is that early schooling is harmful and whether or not it promotes earlier cognitive organization is insignificant compared to the problems that can be caused. They refer to studies by brain specialists and psychologists which suggest that the child's brain simply isn't ready for sustained learning programs until children are eight to ten years old. They feel as did Comenius, Pestalozzi, and Froebel, that:

The consensus of scientific evidence on the home vs. the preschool is clear for the majority of children. They receive a better foundation for
future development and learning from a secure and responsive home environment in which understanding parents are teachers. (p. 9)

They support an educational plan which would allow intervention to take place in the home with the parents receiving instruction and support in their role as primary caregivers for their children.

While there are many positive things that can be said about early childhood education, there is also some cause for concern about the trend toward beginning formal education earlier and earlier. In the rush to teach reading early, there is much that may be missed in terms of childrens' social or emotional growth, or actual physical readiness for learning. The rapid rise in numbers of children labeled as having learning disabilities may be partially attributed to premature exposure to teaching at too high a level. The frustration-failure syndrome sets in early and children can be turned off to learning. Otherwise capable children may burn out on academic achievement because of the overemphasis on early reading and the lack of developmentally-based curriculum and materials.

Of all the literature reviewed by this author on school entrance age and subsequent achievement, Ilika's (1969) is perhaps the one which best illustrates what happens to early vs. late starters. Ilika applied the principle of resistance to displacement. The idea behind this principle is that the rate of growth in living things is fixed. Additional stimulation or deprivation, which tends to speed up or slow down this rate will not have a long effect once the stimulus is removed. In Ilika's study early starters were stimulated with extra months of learning. The additional eight months of schooling increased intellectual development for a
time; when removed, the growth of intellectual development in the children gradually returned to its original rate. To begin with, the early entrants had higher average achievement scores as compared with the late entrants at 89, 101, and 113 months of age. But, by age 137 months, there were no significant differences between the scores of the two groups. Some of the scores which originally favored the early entrants, were reversed at older ages in favor of the late entrants. Only in one area, that of arithmetic, did the early entrants sustain their initial advantage. Thus the advantage of maturation for the late entrants appeared to have more of a lasting effect on their scholastic achievement. The differences in favor of late entrants lead Ilika to conclude that delaying instruction until children are more mature would be more economical and efficient.

Both King (1955) and Carter (1956) conducted similar studies to determine the effect of early entrance to first grade on later achievement in elementary school. Their longitudinal studies were for five and six years, respectively. The groups studied were approximately equal in total numbers studied (100) and in numbers of boys to girls, and IQ scores (average). The findings regarding academic achievement were unanimous in favor of the older entrants. In King's study, the average difference between the two groups was slightly higher than one year four months. Carter found that 87 percent of underage children did not equal the scholastic achievement of normal age children.

In addition to academic achievement, King also included attendance, and psychological or social adjustment on the basis of cumulative records. King's study revealed significantly better attendance among the older group. This
finding, however, has not been borne out in other studies of attendance with early and late entrants. Baer (1958) also found little or no difference in absences between the two groups. Concerning retentions, King discovered that ten out of eleven who were retained had been under six years of age before entering first grade.

King also noted differences in the areas of psychological and social adjustment. The younger group had larger numbers of children referred for speech help and psychological diagnosis than the older group. She also recognized that in nearly every case, there were more underage boys than girls with special problems or being retained. Other studies support the finding that differences do exist and that achievement of boys is more adversely affected by being underage in starting school than girls (Carter, 1956; Hall, 1963; Ilg and Ames, 1972).

An article by Halliwell and Stein (1964) dealt with the question of the relationship between age at entrance to school and academic success in a specific subject area over an extended period with younger first-grade entrants. The hypothesis of the study was that older first-grade entrants would be favored over younger first-grade entrants in reading-related-subjects. The fallacious assumption made by most educators according to Halliwell and Stein, is that “...early and rapid presentation of subject matter are synonymous with good teaching” (p. 658). Contrary to this belief, they feel that subject matter in reading is being presented too rapidly for younger pupils. Therefore, the more immature younger child experiences frustration which hinders and affects their later reading performance and achievement in reading related areas.
Halliwell's (1966) review of research raised the question of whether early entrance is worthwhile since the disadvantages often outweigh the advantages. In nearly all studies reviewed where older pupils are compared with younger pupils of similar ability, the older ones are superior in achievement. Those studies which do show success in early entrance programs are usually comparing above average young pupils with normal ability, normal age children, which does not present an accurate picture.

Halliwell's review found considerable agreement in the research of Bigelow, King, Carter, Baer, Green and Simmons. The overall finding from this review was that "... at any grade level the early entrant is approximately seven months behind his control in achievement" (p. 400).

Chronological age is clearly recognized by many writers as a weak determinant of overall ability or readiness for learning. Weber, Moore, Ilg and Ames are a few of the more prominent writers who support the view that for some children, later may be better and that chronological age is an insufficient criterion for grade placement. The major obstacle to replacing chronological age with a more viable alternative seems to be the cost of implementing an individualized admission program. Other methods which would allow for individual differences in readiness and maturity have been devised, suggested, and even researched for credibility. Ilg and Ames came up with a developmental placement program which would rely on a battery of tests to determine readiness for school and grade placement. Moore labeled his ideal criteria for determining readiness as the child's integrated maturity level, which also required a variety of tests to measure. The recommendation of some researchers such as Hall (1963) was that school districts "... consider delaying
school entrance of boys from six months to a year” (p. 398). This was advised on the basis of findings that boys mature at a slower rate than girls, are more frequently retained, and have a higher incidence of learning problems than girls.

Ilg and Ames of the Gesell Institute, along with other researchers, have supported the idea of individual developmental examinations for determining school readiness and grouping students in school according to their behavior age rather than chronological age. They have co-authored several books to help parents and educators become aware of the problems that result from starting children in school before they are developmentally ready. They have conducted research studies to substantiate their claims concerning the over-placement of children.

This review of the literature showed a strong relationship between entrance age and success in school. Research supports the theory that late entrants do better in school than early entrants. With the hypothesis of this paper supported by the literature, does this relationship exist in today’s schools?
CHAPTER 3

Research Method

After reviewing the literature on entrance age and school achievement, a decision was made to obtain actual student data to determine if there was a relationship between school entrance age and academic progress in this author's school. This chapter describes the methods and procedures used in the study.

Student data were drawn from a school located in Southern California in a rural and urban community of mostly middle-class single family residences. The total sample consisted of 493 students in grades kindergarten through fifth grade during the 1994-95 school year. Data in this sample included individual birthdays and referral to Child Study and enrollment in Special Education.

For the purpose of this study students with birthdays in September, October and November were defined as early entrants. These months were chosen because in California students may begin kindergarten if they are five by December 2nd. These students therefore, would be the youngest in their classes. The remaining students with birthdays in December through August were defined as the late entrants.

While there are many variables that could be used to identify academic performance and many of the studies reviewed standardized tests, this study used referral to Child Study and enrollment in Special Education to indicate low academic performance thus “at-risk” status. The schools records of Child Study meetings and Special Education enrollment data were used to identify “at-risk” students.
Referral to Child Study requires the teacher to fill out a student referral form (see figure 1). Referral is made after the teacher has attempted intervention within the classroom for students that are experiencing academic difficulty. Referrals are not made lightly. A teacher’s referral of a child indicates he/she is experiencing considerable difficulty and is “at-risk” in the eyes of that teacher. The school’s Child Study Team consists of teachers, school specialists (resource teachers, speech teacher, psychologist, etc.) and the administrator. Their function is to evaluate the referral and recommend a course of action that may benefit the referred students. This is the first step taken with students who are experiencing academic difficulty in their class.

If the designated course of action does not result in student success, then the student may be tested for Special Education. Following standardized testing students that have a severe discrepancy between intellectual functioning and academic achievement would be placed in a variety of Special Education situations. Those who do not show a discrepancy would continue with Child Study team recommendations.

These Child Study records are compiled yearly and stored in binders for up to five years. These binders are stored in the school office and are available to teachers and other school personnel. Special Education enrollment information is kept at the district level.

Procedures

Identification of early and late entrants begins by obtaining a computer print out of birthdays for the entire sample. Those individuals with birthdays in
## Child Study Referral Form

<table>
<thead>
<tr>
<th>Name of Parent</th>
<th>Phone</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Check Areas of Concern:
- Spelling
- Getting along with others
- Superlative
- Superior
- Emotion
- Emotional
- Reading
- Visual
- Writing
- Visual
- Other
- Language
- Behavioral
- Motor
- Motor
- Other
- Coordination
- Health
- Vision
- Vision
- Other

### Comments/Narrative of Concerns

### Strategies I Have Tried
- Parent conference
- Positive reinforcement
- Reward System
- Use of alternative response methods
- Shorter Assignments
- Cum Review
- Eraser/cross - age
- Other

### Action Dates
- Conference with child
- Parent conference
- Conference with previous teacher
- Reward System
- Use of alternative response methods
- Shorter Assignments
- Cum Review
- Eraser/cross - age

### Results
- Conference with child
- Parent conference
- Conference with previous teacher
- Reward System
- Use of alternative response methods
- Shorter Assignments
- Cum Review
- Eraser/cross - age

*Figure 1*
September, October and November were identified as early entrants. During this process it was discovered that some of the students with September, October and November birthdays were a year older than other students with birthdays in these months. Further examination was made to determine if they had waited a year to start school or if they had been retained in previous years. If they waited a year to start, students in this group were separated into a category unto themselves labeled chose to wait.

Child study records and special education enrollment were examined to develop a list of students identified as "at-risk" at any time during the past five years. This "at-risk" list was then compared to the early, late, and late-by-choice entrance list in order to determine the number of individuals in each group that were considered "at-risk".

Findings/Results

Displayed in Table 1 is the distribution of the 493 birthdays by month. Of the total sample the numbers are equally distributed over the 12 months. This is consistent with an overall birthday average of 41 birthdays per month. The dotted line in Table 1 separates early and late entrants. Of the total sample 119 students are early entrants and 374 are late entrants.
The distribution of columns of the 81 students identified as “at-risk” are displayed by months in Table 2. Unlike the overall sample more “at-risk” students have birthdays predominately in the early entrants months. The dotted line in Table 2 separates early and late entrants. The “at-risk” numbers of 15, 12 and 9 for the months of September, October and November respectively are the highest numbers for any of the months. This seems to show that students with birthdays in the early entrant months are more likely to be “at-risk” than students with birthdays in any of the late entrant months.
In addition, the distribution of birthdays of the 16 students who chose to wait a year to start to school are displayed in Table 3. The birthdays of the students that chose to wait are only found in the early entrant months. Most likely this is due to the fact that these students are still 4 when they start kindergarten. Some parents recognize their child’s immaturity or lack of readiness and decide to have them wait a year, thus being the oldest not the youngest in their class. None of these individuals are “at-risk”.

<table>
<thead>
<tr>
<th>Month</th>
<th># “At-risk”</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>15</td>
</tr>
<tr>
<td>October</td>
<td>12</td>
</tr>
<tr>
<td>November</td>
<td>9</td>
</tr>
<tr>
<td>December</td>
<td>5</td>
</tr>
<tr>
<td>January</td>
<td>5</td>
</tr>
<tr>
<td>February</td>
<td>4</td>
</tr>
<tr>
<td>March</td>
<td>6</td>
</tr>
<tr>
<td>April</td>
<td>4</td>
</tr>
<tr>
<td>May</td>
<td>2</td>
</tr>
<tr>
<td>June</td>
<td>8</td>
</tr>
<tr>
<td>July</td>
<td>4</td>
</tr>
<tr>
<td>August</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
</tr>
</tbody>
</table>

Table 2
Table 3

<table>
<thead>
<tr>
<th>Early Entrants</th>
<th># Chose to Wait</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>3</td>
</tr>
<tr>
<td>October</td>
<td>6</td>
</tr>
<tr>
<td>November</td>
<td>7</td>
</tr>
<tr>
<td>December</td>
<td>0</td>
</tr>
<tr>
<td>January</td>
<td>0</td>
</tr>
<tr>
<td>February</td>
<td>0</td>
</tr>
<tr>
<td>March</td>
<td>0</td>
</tr>
<tr>
<td>April</td>
<td>0</td>
</tr>
<tr>
<td>May</td>
<td>0</td>
</tr>
<tr>
<td>June</td>
<td>0</td>
</tr>
<tr>
<td>July</td>
<td>0</td>
</tr>
<tr>
<td>August</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Late Entrants</th>
<th># Chose to Wait</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>0</td>
</tr>
<tr>
<td>May</td>
<td>0</td>
</tr>
<tr>
<td>June</td>
<td>0</td>
</tr>
<tr>
<td>July</td>
<td>0</td>
</tr>
<tr>
<td>August</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Table 4 combines previous tables to summarize data regarding placement of early, late, and chose-to-be-late entrants.
With the current California birthday entrance deadline, students who have birthdays in the months of September, October and November are the youngest in their classes. However, if the birthday deadline were changed, there would still be students who are the youngest in their class. Research and literature say that older students do better than younger students. This was the next scenario examined.
For this scenario the total sample of 493 was reduced by 16 to account for the number of students who chose to wait a year to start school. Table 5 displays the birthdays of the students (now numbering 477) separated into traditional school quarters. It also displays the number and percent of students "at-risk" and not "at-risk" by quarters.

<table>
<thead>
<tr>
<th>Quarter</th>
<th># of students</th>
<th># not &quot;at risk&quot;</th>
<th># &quot;at-risk&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept/Oct/Nov</td>
<td>123 (90%)</td>
<td>75 (35%)</td>
<td>48 (10%)</td>
</tr>
<tr>
<td>Mar/Apr/May</td>
<td>117 (90%)</td>
<td>101 (84%)</td>
<td>16 (10%)</td>
</tr>
<tr>
<td>Jun/Jul/Aug</td>
<td>105</td>
<td>101</td>
<td>14</td>
</tr>
</tbody>
</table>

In addition to separating the sample by traditional school quarters, Table 5 also separates late entrants into three-month intervals whereas earlier data had late entrants in one nine-month entry.
The months of September, October and November had 35% of the students “at-risk”, a higher percentage of “at-risk” students than any other quarter. The next youngest group of students with birthdays in June, July and August had 16% of the students “at-risk”. It would seem that the percent of students “at-risk” decreases as their age increases.

The next procedure was to analyze data by grade level (see Table 6, 7 and 8). The tables show the highest percentage of “at-risk” early entrance are in fifth, fourth, first and kindergarten respectively. The highest percentage of “at-risk” late entrants are in fifth grade. The high percentage in fifth grade may be due to the fact that these students have been in school longer and have had more chance to be identified “at-risk”. Also, the discrepancy increases proportionately between ability and school performance as the child gets older.

<table>
<thead>
<tr>
<th></th>
<th>K</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Students</td>
<td>61</td>
<td>76</td>
<td>85</td>
<td>99</td>
<td>84</td>
<td>88</td>
<td>493</td>
</tr>
<tr>
<td># At-Risk</td>
<td>6</td>
<td>10</td>
<td>6</td>
<td>17</td>
<td>15</td>
<td>27</td>
<td>81</td>
</tr>
<tr>
<td>% AtRisk</td>
<td>10</td>
<td>13</td>
<td>7</td>
<td>17</td>
<td>18</td>
<td>31</td>
<td>16</td>
</tr>
</tbody>
</table>

Table 6

<table>
<thead>
<tr>
<th></th>
<th>K</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Early Entrants</td>
<td>11</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>16</td>
<td>28</td>
<td>103</td>
</tr>
<tr>
<td># At-risk</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>13</td>
<td>36</td>
</tr>
<tr>
<td>%</td>
<td>36</td>
<td>40</td>
<td>19</td>
<td>18</td>
<td>44</td>
<td>46</td>
<td>35</td>
</tr>
</tbody>
</table>

Table 7
The following section discusses the results as they pertain to the projects' hypothesis that there is a relationship between school entrance age and children that have been identified as "at-risk".

Discussion

Teachers have always been concerned with trying to make sure all their students were successful at school. Looking over the past few years, there seems to be a possible pattern emerging in the students who were struggling. Some students had a harder time meeting grade level expectations than other students and generally these struggling students had birthdays in September, October and November (early entrants). What about these younger students that aren't physically or emotionally ready for this kind of program? This general observation was the basis for this study: to determine what research said about starting school before children are developmentally ready and then to more scientifically study this author's school.

The research presented in Chapter 2 suggests that older entrants do better in school than early entrants. The data from this study also supported the
literature. Of the 193 early entrants 35% were “at-risk”; data for the 374 late entrants indicate 12% were “at-risk”. This would seem to indicate that one may avoid bringing “at-risk” if the date to start school was moved from December 2 to September 1. But if the September, October and November students were a year older, then the June, July and August students would be the early entrants. For the 120 students in the June, July and August category, 19 (16%) were identified as “at-risk.” This suggests that with only three months extra maturity, on the average, those considered “at-risk”; are reduced by more than half.

If 35% of the early entrants were “at-risk” because they started school before they were ready what about those students who chose to wait an extra year? An interesting finding of the study was that of the 16 students with birthdays in September, October and November who chose to wait a year to start not one was identified as “at-risk.” Generalizing from this sample of 493 students, for every 100 early entrants over 1/3 will be identified as “at-risk” at some time in their school career. And, for every 100 who wait an extra year none will be “at-risk.” This suggests that if an early entrant waits a year they won’t become “at-risk,” and also strongly suggest that this may be a possible solution to early entrants being unsuccessful in their school experience.

As this research suggests, one way to address failure of early entrants would be to move the school entrance date from December 2 to September 1. However, it does not seem likely that the entrance age will be changed in the near future, so what can teachers do to make sure students are successful? One school in the target area recognized the need to help “at-risk” students and implemented a Reading Recovery Program. This is a successful intervention
Alternatives

Developmental Screening

These tests were designed to identify students who may require early intervention programs or modified classroom programs. Perhaps the most widely used test is the Gesell School Readiness Screening Test. The Gesell test is based on the theory that behavior is the result of maturation, and that neither chronological age or environmental conditions significantly affect that maturation, which proceeds at an immutable gene-determined pace (Wolf and Kessler, 1987).

Chronological age is a time- and cost-efficient way of determining when children begin school. Most school districts favor this approach over a readiness assessment enrollment. However, the advantages of readiness assessment outweigh the advantages of admission to kindergarten by chronological age because prevention is preferable to remediation.

Many districts express concerns about the additional teachers and specialized programs needed for children who are potentially "at-risk." As Mertz et al (1987) states: "possibly more than half of the children who had not met the early entrance requirements will eventually be referred for special services" (p. 16). Shank (1990) further suggests that the cost incurred by "at-risk" children for screening, evaluation and special education will outweigh those costs for readiness assessment and pre-K-programs.
Prekindergarten

These programs as described by Shank (1990) would concentrate on readiness skills and utilize parent participation to facilitate children's development. These programs would differ from more academically oriented traditional kindergarten in that they would involve a careful sequencing of tasks, use reinforcement to maintain attention and develop skills and work with children in small groups or individually. Developing motor skills, social skills, and a positive self-concept would also be stressed. Shank (1990) quotes Egertson as saying by developing readiness skills the prekindergarten program would have as its goal "moving each child as far forward in his or her development as possible" (p. 583).

Full-Day Kindergarten

The establishment of full-day kindergarten has been proposed, and research supports this approach, as a viable way to increase the academic readiness of students so that they will be prepared to enter first grade. Advocates for this alternative see it as a viable option to provide for the different readiness levels of children entering kindergarten. Wolf and Kessler (1987) reviewed a study of full-day kindergartens by Humphrey (1983) where he found children have:

- better readiness test scores for entering first grade
- better reading skills at the end of first grade
- better self-concept and more positive attitudes toward school
- lower rate of retention, and
- better basic skill scores (p. 31)
Obviously, the establishment of full-day kindergarten programs is much more costly than a change in the age requirement for entrance to school. Compared to half-day programs, full-day kindergartens involve a substantial increase in cost to finance programs and the physical facilities required to house such programs.

**Structural Changes**

A 1993 California State Department of Education report prepared by Catherine George on retention alternatives indicates a few schools have implemented structural changes to more effectively meet the needs of their early elementary students. Some schools are implementing combination classes such as K/1/2, K/1, and Head Start/K/1 in conjunction with developmentally appropriate instruction. Because the classrooms offer instruction at more than one level, the pressure to retain was diminished. Year-round schools have also demonstrated their usefulness in preventing retention due to excessive absences. Ungraded schools have been implemented in many different forms. The flexibility permitted in placing students in different grade configurations and the freedom given teachers to try new ideas were cited as benefits.

Schools as they are now, show a significant percentage of failure among its students. Every child has a right to succeed and every child is capable of success. It is the teacher's job to create an environment in which every child will succeed. Teachers can advocate changes in school structure but the bottom line is we must teach the students who come to our classes. Since we cannot change the students, or the structure of the school, maybe we need to change our teaching.
Proponents of child-development centered kindergartens promote a curriculum that is geared to the social and emotional adjustment of the students rather than just their academic achievement. This study proposes a change in the kindergarten program...a program that goes back to the early 20th century of the progressive kindergarten movement that advocated a program that includes free and organized play, stories, art, music, snacks, rest periods, and craft work. It is every teacher's responsibility to find a way to make sure the students they get, regardless of their readiness to learn, meet with success.
BIBLIOGRAPHY


