AN INVESTIGATION OF THE EFFECTS OF PRESCHOOL EDUCATIONAL SETTING ON KINDERGARTEN READINESS

By

Sarah R. Delforge

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Thesis Chair

Thesis Committee Member:

_____

_____

The Graduate College
University of Wisconsin-Stout
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The Graduate School
University of Wisconsin-Stout
Menomonie, WI 54751

ABSTRACT

Delforge		Sarah	R.
(Writer)	(Last Name)	(First Name)	(Initial)

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There has been an ongoing debate as to what is the most beneficial environment for children during their pre-kindergarten years to prepare them for kindergarten. A review of literature showed that there is a debate as to what is considered kindergarten ready depending on what the educators and parents are most concerned with, academics or social/emotional growth. The review was extended to examine the history of kindergarten readiness, the changing dynamics of families that may influence the pre-kindergarten setting, and what teachers view as the most and least preferred qualities of children entering kindergarten. The review also included what skills are considered developmentally appropriate for children aged five to possess. However, it was found

that much of the research in this area is outdated. The present study included a sample of beginning kindergarten children from three elementary schools. The sample was obtained from schools in Western Wisconsin. Their pre-kindergarten setting was identified and correlated with their performance on kindergarten readiness screeners. The results of the study showed some differences in pre-educational setting based on their performance on kindergarten readiness screeners. The results also indicated that some children performing well on certain items on the screeners also performed better on other items. Implications for educators and parents are discussed, followed by a presentation of limitations of the present study, and directions for future research.

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Introduction

Whether to send a child to preschool, daycare, or stay at home is a concern that many parents face today. Parents want to know if sending their child to a preschool, structured daycare, or staying at home with them will better prepare the children to enter school, both academically and socially. Not only do parents face this issue but the government is also interested in the answer to this question (Sawhill, 1999). There is growing concern in our nation as to whether preschool, daycare, or staying at home with parents is best to prepare children for kindergarten. This is a growing concern as the expectations of kindergarten increase and the number of parents that are working increases.

There are varying beliefs in regards to whether or not a structured daycare, preschool, or staying at home with family members is most beneficial for children in their preparation for kindergarten. Numerous studies support that preschool has many benefits for kindergarten readiness. As Sawhill states, "high-quality, educationally orientated child care is one of the most effective strategies for improving later school performance" (1999, ¶ 2). It has been found that the best results of preschool on kindergarten readiness come from programs that begin early, are able to help children to have higher school achievement, reduce grade retention later in school, and reduce the need for special education at a later age (Sawhill, 1999). It has also been pointed out that preschool and structured daycare not only have an effect on academics but on a child's socialization skills. Kimball, Lindauer,

and Petrie (1998) believe that a high-quality, age-appropriate preschool program is likely to improve a child's intelligence and achievement.

There is a flip side to the belief that preschool and structured daycare are important in the success of preparing a child for school. There are professionals that argue that a preschool or daycare is not necessary for preparing a child for school. These professionals believe that if a child is brought up in an enriched home environment they are just as prepared to begin school (Horn, 2000). Horn (2000) stated that four things are needed to ensure that a child arrives at school ready to learn. First, children need to be healthy so their natural abilities can grow and mature. Second, children need to have developed a sufficient degree of emotional maturity and self-confidence so they can take on new challenges and lessons. Third, children need to develop good language skills so they can ask and answer questions and take part in group discussions. Lastly, children should develop good social skills so they will be able to get along with other children and follow directions given by adults.

In summary, there are numerous different beliefs as to what is the best setting for a child during their first five years to ensure that they are prepared for kindergarten, which is considered the foundation of school. Not all parents have the ability to stay at home with their children. Conversely, not all parents have the ability to place their child in the "best" daycare or preschool.

The lifestyles of many parents have changed. There are more single parents that are forced to work to support their children and there are more dual-career families. When this occurs there is a need for quality care for their children. Today, preschool and daycare are more to parents than a safe place to leave their children during the workday;

it is becoming more of a place where the children can begin to develop fundamental skills in academics and socialization (Galinsky & Friedman, 1993).

Sending children to preschool or daycare is a growing trend due to the increase in mothers that are now in the workforce. The amount of women in the workforce has increased since the 1990's and is now 47%, as projected by Galinsky and Friedman (1993). Galinsky and Friedman (1993) found that 66% of married working men have wives that are also in the workforce. Additionally, 53% of single-parent families in the United States have children, and the parent is in the workforce (Galinsky & Friedman, 1993). There have been many federally funded programs to help the families that need assistance with childcare to ensure that children receive an early education that is academically and socially guided.

One such program that was started in the 1960's is Head Start. Head Start is federally funded program that provides care for children ages three to five years that are from low-income families. There has not been sufficient research since 1985 to measure the impact of Head Start on kindergarten readiness (Knight, 1991). Earlier studies of Head Start have suggested that it has had a modest effect on long-term academic and socialization success (Knight, 1991). However, Head Start has been shown to show a positive effect on the well-being of the children that it serves. Thus federal money continues to support the program. It is important to look at the federal money that supports all early education programs that serve our children.

As discussed, federal support for early education programs has taken place since the 1960's (Knight, 1991). The main reason for federal funding of early education programs is to ensure that all children, especially those from low-economic-status

families, start school ready to learn (Knight, 1991). More recently, President Bush in 1990 passed a bill that was known as the National Education Goals 2000 (Goals 2000; Section 102-2). The National Education Goals 2000 (Section 102-2) stated that all children in America would start school ready to learn. Goals 2000 (Section 102-2) went on to state that all children would have access to high-quality and developmentally appropriate preschool programs that help prepare children for school. This bill placed a higher demand on preschools and daycares to prepare children for kindergarten and in turn, has impacted the way kindergarten is functioning today.

The Goals 2000 set into motion a wave in which federal funding was to be used to improve child care, especially early educational child care. One such program was the Child Care and Development (CCD) Block Grant Act 1990 (Blank, 1994). The purpose of CCD was to help states make significant improvements in state child care programs and policies. Many states used the money to improve licensing and monitoring of activities (Blank, 1994). Wisconsin used the federal money to create a legislative blueprint for the state's future childcare activities (Blank, 1994). Most likely this money was used to increase the effectiveness of these programs to ensure quality daycares and preschools that would prepare the children for school.

Wisconsin has numerous preschools, daycares, and stay at home families. It is not only a question of the nation but of Wisconsin families as to what is the best way to prepare children for school, more specifically, kindergarten. A review of research reveals that there is a wide range of beliefs as to what is the best placement of children to increase their kindergarten readiness. There are a variety of in-home daycares, structured daycares, federally funded daycares and preschools in Wisconsin.

A review of the literature shows that preschools and structured daycare settings are essential for kindergarten readiness and that government agrees with this position. Studies have also shown that family care during the first five years is also beneficial for kindergarten readiness. Therefore, the research problems for this study were to determine whether there is a difference in kindergarten readiness of children based on the educational setting where they are cared for during their pre-kindergarten years, and if there is a difference, which setting is most beneficial.

Purpose of the Study

Past research has shown that there is not a consensus on what is considered kindergarten readiness. Research also shows that kindergarten readiness has changed over the years to include more academic skills. It has also been the intent of past research to examine what is the most beneficial setting for a child to prepare them for kindergarten. There are various settings that a child may be in during their pre-kindergarten years that may include daycare, at home with parents or family members, and preschool.

Further, past research shows that not only are parents and educators interested in the answer to the question of what is kindergarten readiness and the most beneficial setting, but so is the government. The government has provided money for preschool, such as Head Start, and has passed bills such as the Educational Goal of 2000. The intent is to help prepare the child in poverty and the minority child with the same pre-kindergarten education as their peers so they will enter kindergarten ready to learn.

The purpose of this study was to investigate whether pre-educational setting influences kindergarten readiness. The sample was obtained from schools in Western

Wisconsin. It was also aimed at comparing items on the kindergarten screening tools to what is considered developmentally appropriate skills for five and six year olds. The following is the review of literature, methodology, results, and discussion of the study.

Significance of the Study

The significance of this study is its importance for teachers, parents, and the government in helping them to understand most beneficial settings for children during the pre-kindergarten years. Expectations for kindergarten readiness skills appear to be increasing both academically and socially; therefore, knowledge of the most beneficial settings will help to prepare children to enter the world of school more prepared and able to succeed. There is varying research as to what is the most beneficial setting for a child. It is hoped that through this study professionals and parents will gain a better understanding of what constitutes "kindergarten readiness" to date and the benefits of different pre-kindergarten settings on preparing for kindergarten. Finally, this study will also provide a framework from which future research on kindergarten readiness and pre-kindergarten educational settings can be developed.

Chapter II

Review of Literature

The review of literature discusses different beliefs about whether preschool or another educational setting is necessary for children to be ready for kindergarten. Past studies have examined whether preschool or other settings are effective for preparing children for kindergarten; however, many of the studies are not current. Because the recent literature on this topic is scant, the review of the literature is expanded to explore the history of school readiness, what the general public considers readiness for kindergarten, developmentally appropriate curriculum, kindergarten teachers' views of readiness for school, parents' views on kindergarten readiness, and a review of popular kindergarten and pre-kindergarten curricula. Finally, a critical analysis of past research is addressed.

History of School Readiness

The concept of academic readiness has been around since the 1800's when parents were the sole individuals responsible for teaching their children reading and writing skills (Gillespie-Silver & Scarpti, 1992). Even though there were schools, only those children from wealthy families were able to attend. It was not until the mid- and late 1800's that parents gave up their major role in teaching academic skills (Gillespie-Silver & Scarpti, 1992). By the time of World War II, educators assumed the role of teaching academic skills such as reading and writing to school age children (Gillespie-Silver & Scarpti, 1992). It was during the 1930's that educators at the Gesell Institute began to develop school readiness measures to determine if a child was developmentally ready for the structured learning environment of school (Gillespie-Silver & Scarpti,

1992). Since this time there has been an abundance of school readiness measures developed to determine whether or not a child is ready to attend school and learn. Not only have there been specific dates in history that have led to where we are today, but federal involvement in early education has also influenced school readiness.

Federal involvement in school readiness began around the 1930's and continues to influence the kindergarten readiness of children today (Carlton & Winsler, 1999; Takanishi, 1999). During the 20th century, the federal government was involved in three national programs that were aimed at improving early education programs to better serve children and prepare them for school (Takanishi, 1999). These programs were the Works Progress Administration (WPA) nursery schools, the Lanham Act Child Care Centers, and Head Start Programs (Takanishi, 1999). Of these three programs that have been federally supported, only the Head Start Programs are currently serving children and preparing them for kindergarten. As defined by the Department of Health and Human Services (1995), Head Start serves and provides comprehensive services to low-income children aged three to school age. Head Start also permits up to 10 percent of the children in programs to be from families who do not meet these low-income criteria and requires a minimum of 10 percent of the enrollment to be accessible to children with disabilities.

Federal legislation in the 1960s, such as Title I of the Elementary and Secondary Education Act of 1965 (ESEA), targeted early education programs as social reform (Takanishi, 1999). The purpose of ESEA, which is now known as Title I, was for preschool programs to provide and meet the special needs of educationally deprived children (Takanishi, 1999). Title I continues to serve children that need special care in

order to learn academics. Also instituted in 1965, as Title III of ESEA, additional centers and services for preschool children were authorized (Tankanishi, 1999). In 1972, the Comprehensive Head Start, Child Development, and Family Services Act stated, "child development programs must build upon the role of the family as the primary and the most fundamental influence on the development of children, and must be provided only to children whose parents or legal guardians request them" (Takanishi, 1999, p. 311). However, the federal government also states that children in poverty, based on the income of the mother, should and do have childcare provided for them (Takanishi, 1999). More recently, the National Educational Goals of 2000 influenced school readiness and programs available to children (Carlton & Winsler, 1999). Also, the No Child Left Behind Act of 2001, requires states to be held accountable for ensuring all children are proficient in reading and math (President Bush's Plan to Prepare Children for Kindergarten). However, even though there have been various federal laws and changes in the history of school and academic readiness, there is still disagreement as to what constitutes readiness for kindergarten.

Therefore, not only is it important to look at the important dates in history and the federal involvement that has shaped what is considered readiness for kindergarten, but it is also important to look at the history of the definition of readiness and theoretical views that have shaped the definition. Historically, readiness has been defined as two separate concepts; readiness to learn, and readiness for school (Carlton & Winsler, 1999). Readiness to learn has been viewed as a developmental concept that an individual is able to learn specific things. Readiness for school, however, is viewed as an individual's ability to be successful in the school environment (Carlton & Winsler, 1999). The

concept of school readiness, which begins in kindergarten, combines both the concept of readiness to learn and readiness for school. The definition of school readiness implies that a child is developmentally ready for school and that the child must adapt to the construct of the school environment (Carlton & Winsler, 1999).

The assumption of the definition which is used today for school readiness is based on historical theoretical concepts of maturation. For instance, Piaget's theory states that children need to be in a certain biologically based developmental stage in order to learn in school (Carlton & Winsler, 1999). This suggests that children are naturally programmed and follow an internal clock that is set as to when a child will begin to learn certain concepts. Numerous teachers follow this theory and believe that there is not much that a teacher or parent can do to speed up the learning of a child; that learning will take place when a child is biologically ready (Carlton & Winsler, 1999). This seems to be a belief that many teachers have today; however, it does not seem to be what has been considered when looking at kindergarten readiness.

Today there are various techniques used in our nation to decide whether a child is ready for school. The most common practice used is that of cut-off dates (Laidig, 1998; Carlton & Winsler, 1999). Cut-off dates involve when a child is born in relation to when they are able to enter kindergarten. Another technique used is kindergarten readiness evaluation. There are two forms of evaluations used to measure kindergarten readiness, those that measure developmental milestones and those that measure academic knowledge (Carlton & Winsler, 1999). Many districts implement their own readiness scales because there is not one universal evaluation that is used to date. The third technique used is delayed entry into school. The decision of whether or not to delay a

child from entering kindergarten is ultimately up to parents, but may be influenced by teachers (Carlton & Winsler, 1999). Other techniques that have been used in regards to kindergarten readiness are "redshirting" and transition classes. Redshirting basically means that a child's entry into kindergarten is delayed for one year until the child is developmentally ready for school (Carlton & Winsler, 1999). The concept of transition classes is that a child will be placed in a preschool or another environment that will prepare them for school (Carlton & Winsler, 1999).

A review of history shows that there have been numerous laws, movements, and definitions of school readiness that have impacted when a child is considered ready for school. There continues to be disagreement as to what constitutes readiness for school that will, in turn, continue to impact what is considered the most beneficial placement of a child to prepare them for kindergarten.

Kindergarten Readiness

The concept of whether or not a child is ready for school varies among educators, teachers, and what popular child development literature suggests. There is no universal set of behaviors that are required of a child to enter kindergarten (Laidig, 1998). In the United States the sole requirement for entrance into kindergarten is chronological age; children must be five years old by a certain date, which is usually by September first of the year the child would be entering kindergarten (Laidig, 1998).

The general belief for kindergarten readiness is that children will have developed a group of skills necessary to learn. These skills may include readiness to read, write and count, sit and listen, follow two-step directions, ask an adult for help, to interact appropriately with other children, and to toilet independently (Laidig, 1998). There are

numerous checklists available to parents that allow them to see if their child is ready for kindergarten compared to other children their age. For instance, there is a checklist for kindergarten readiness that is rather specific and includes such things as being able to cut with scissors, follow rules, manage own bathroom needs, control of self, identify alphabet letters, and so on. (Gisler & Eberts, 2000). *Early Childhood Educators #3* has a somewhat similar list that states that the knowledge of size, color and shape, numbers and math readiness, reading readiness, position and directions, time, and listening and sequencing are what kindergartens look for in a child to be ready for school (Cousineau, 2001).

There appear to be varying thoughts on what specific skills a child should have before attending school. Perhaps a more inclusive and universal checklist of what a child should know before attending school needs to be developed in order to ensure that the children are entering school with the essential skills ready to learn. However, many professionals agree that when looking at kindergarten readiness one must remember that children develop at different rates (Laidig, 1998). Therefore, Laidig (1998), a school psychologist, believes that one should expect a typical kindergarten class to have children that enter with a wide variation in their school-related skills. It is also imperative for schools to be ready for the child entering school.

Developmentally Appropriate Skills

Ensuring that assessment tools and curriculum is developmentally appropriate in the education field is imperative. Expectations for a child to know a concept, sit for long periods of time, aware of social cues, and follow directions should be determined in relation to the child's developmental stage. Numerous child development experts such as

Piaget, Erickson, and Freud studied development in children at an earlier period of history. Today, with increased pressure from government and more children having early life experiences, children are learning concepts earlier in their life. However, it is important to remember that even though there are developmental stages, children reach and obtain them at different rates based on many extraneous variables. This is especially true in kindergarten, where the ages can range from just turning 5 to being 6 years old. This difference in age can amount to large differences in development seen in and out of the kindergarten classroom. What is considered developmentally appropriate is based on gathering of data from various sources as to a child's development and working with that child where they are at developmentally (Gestwicki, 1995). Developmental models are devised in order to give the average age at which most children obtain skills; however, there is variation between children.

Children enter school with varying readiness skills based on prior educational experiences, life experiences, and their stages of development. In a study conducted by the National Center for Education Statistics (NCES), 2001, titled "Entering Kindergarten: Findings from The Condition of Education 2000," the authors stated that a typical child entering kindergarten is 5 and 1/2 years old and that kindergarten is not mandatory in most states but is becoming the norm as the first year of school. In relation to knowledge of letters, the NCES found that most children can recognize letters of the alphabet by name, know upper or lower case, know that print is read from left to right and from the end of one line to the beginning of the next line, and know where a story ends (NCES, 2001). In the area of counting, most kindergartners can recognize some single-digit numerals, identify simple geometric figures, and count to 10 (NCES, 2001). However,

many children in the study can recognize all single-digit numbers, count beyond 10, identify the similarities in patterns, and compare the length of objects using nonstandard units (NCES, 2001). Again, this study pointed out that there is variation in children in the above mentioned skills. Some will be more advanced and some will lag behind (NCES, 2001). Therefore it is imperative to look at what is developmentally appropriate. It is important to remember that children develop rapidly at this young age. Differences will be seen in cognitive, social, and motor development, and behavior between the younger children and older children and between girls and boys in kindergarten.

Developmentally appropriate is a concept that is somewhat harder to define. There are earlier child development experts, such as Erickson and Piaget, who are widely looked to and then there are more concrete developmental milestones considered. However, prior to entering kindergarten, children have and are continuing to change rapidly. An important part of cognitive development is memory and attention which changes dramatically between the ages of 2 and 6 years (Edwards, 1998). It is important that children have a base of good pre-reading and math skills, have some social and behavior development that allows for group activities, and have an attention span that allows them to learn new activities (Bredekamp & Copple, 1997). The National Association of Education for Young Children (Bredekamp & Copple, 1997) has a position statement of principles of child development and learning that inform developmentally appropriate practice (see Table 1).

Table 1

Principles of Child Development and Learning

Principle	Description
1	Domains of children's development are closely related. Development in one domain influences and is influenced by developmental in other domains.
2	Development occurs in a relatively orderly sequence, with later abilities, skills, and knowledge building on those already acquired.
3	Development proceeds at varying rates from child to child as well as unevenly within different areas of each child's functioning.
4	Early experiences have both cumulative and delayed effects on individual children's development. Optimal periods exist for certain types of development and learning.
5	Development proceeds in predictable directions toward greater complexity, organization, and internalization.

6	Development and learning occur in and are influenced by multiple social and cultural contexts.
7	Children are active learners, drawing on direct physical and social experience as well as culturally transmitted knowledge to construct their own understanding of the world around them.
8	Development and learning result from interaction of biological maturation and the environment, which includes both the physical and social worlds that children live in.
9	Play is an important vehicle for children's social, emotional, and cognitive development, as well as a reflection of their development.
10	Development advances when children have opportunities to practice newly acquired skills as well as when they experience a challenge just beyond the level of their present mastery.

11	Children demonstrate different modes of knowing and learning and different ways of representing when they know.
12	Children develop and learn best in the context of a community where they are safe and valued, their physical needs are met, and they feel psychologically secure.

Source: Developmentally Appropriate Practice in Early Childhood Programs, 1997

For teachers, parents, other educators, and the government, it is important that all have a basic understanding of what are considered developmental milestones for the typical child. Cognitive, social, motor, and language development are all important to consider when looking at where children's skills are, especially when assessing, as in kindergarten screeners, in order to best serve and educate the child. It is also imperative to be knowledgeable in order to guide and understand children and to facilitate appropriate requirements. A summary of these developmental milestones can be seen in Table 2.

When reviewing the developmental milestones that an typical child meets, one can see the changes a child makes during one year. As previously stated, children at a young age will show different skills depending on where they are at developmentally and considering their earlier experiences. A child that develops skills at a younger age will advance into later stage development at a younger age. For instance, if a child learns pre-reading and math skills at a younger age they will learn to read, write, and do arithmetic

at a younger age (NCES, 2001). The National Center of Educational Statistics considers pre-reading skills as becoming familiar with the conventions of print (reading left to right and top to bottom), learning to recognize letters by name, associating sounds with letters or letter combinations, and understanding the meaning of many spoken words and phrases. Pre-mathematical skills identified by the NCES are rote counting, making one-to-one correspondences between spoken numbers and series of counted objects, recognizing written numerals, and understanding greater, lesser, and equal relationships.

One can easily see that what is considered developmentally appropriate for a child is not the only way to look at whether or not a child has kindergarten readiness skills. What one considers ready for kindergarten varies within parents, teachers, school districts, and the government. However, to help educate all children it is imperative that educators and parents look at the whole child when determining whether they are ready for kindergarten.

Kindergarten Teachers' Views of Kindergarten Readiness

It is important to look at what the educators of kindergarten students believe constitutes readiness because they are the people that receive the children first in school. There is an increasing gap between children in their readiness skills when they enter kindergarten (Kelly, 2001). This in turn has an impact on the manner in which kindergarten teachers base their curriculum. As quoted by a kindergarten teacher in an article by Kelly, "The gap has widened. There is a greater range of developmental levels now (2001, ¶ 3)." When children come to school with such a range of skills it has an effect on the environment of the kindergarten classroom. There are many children who have attended an educational based daycare or preschool, that have now set the stage for

kindergarten readiness. This has also set the standard for the curriculum in kindergarten towards reading and mathematics, and away from cutting and pasting and beginning to learn the alphabet (Allen, 2001).

Table 2

Developmental Milestones for Children aged 5 and 6

Gross Motor Skills	Hop on one foot Skips and runs Catches a ball with hands Walks forward, backward, and sideways Displays high energy levels Shows fatigue
Fine Motor	Copies shapes Prints first name Prints simple letters Colors within the lines Draws a person Zips coat Buttons well Uses scissors Ties shoes (with adult coaching)
Language and Communication Skills	Uses third person irregular verbs Uses compound sentences Uses pronouns correctly Tells original stories Uses nonverbal gestures Takes turn in a conversation Growing speech fluency
Math Readiness Skills	Understands square and rectangle Understands the concept of same shape Understands the positional statements of first, middle, and last (using object manipulation) Rote counts 1 to 20 Writes numerals 1 through 5 May count 1 to 20 objects
Social-Emotional Development	Enjoys dramatic play with other children Cooperates well (forms small group but may choose to exclude a peer) May be bossy with others Jokes and teases to gain attention Shows less physical aggression

Can follow requests
May be easily discouraged or encouraged
May lie than admit fault
Enjoys others
Is more patient, generous, and conscientious
Develops a sense of fairness
Has a strong desire to please parents and other adults
Prefers friends of the same sex
Social and talking skills are increasing

Source: Developmentally Appropriate Practice in Early Childhood Programs, 1997 and Working with Young Children, 1998

There are numerous reasons why the readiness skills of kindergarten students are increasing. There are more mothers that are in the workforce and that are sending their children to preschool (Allen, 2001). Typically, children are acquiring knowledge of the alphabet and numbers that were traditionally taught to them in kindergarten in years past. Thus, more and more school districts are trying to figure out how to narrow the gap between the children that do attend educational daycare centers and preschool and those children that do not (Allen, 2001).

In 1993 the U.S. Department of Education conducted a study of public school kindergarten teachers' views on children's readiness for school. There were numerous findings in this extensive study. It was found that of the kindergarten teachers that were surveyed, the top four qualities that they felt were important for kindergarten readiness were: physical health; rested and well-nourished; the ability to communicate needs, wants and thoughts verbally; and enthusiastic and curious in approaching new activities (see Table 1). Along with these four qualities more than half of the teachers placed significant importance on the ability to follow directions, not being disruptive in class, being

sensitive to other children's feelings, and the ability to take turns and share (U.S. Department of Education, 1993).

A 1993 study by the U.S. Department of Education also found what the kindergarten teachers thought were the least important skills for children to have upon entering school. The skills included good problem solving, ability to identify primary colors and basic shapes, ability to use pencils and paint brushes, knowledge of the alphabet, and the ability to count to 20 (see Table 3). The differences between what the general population and kindergarten teachers believe are the necessary skills for entering school has an impact on the manner in which parents and other professionals prepare children for school.

Along with the other information gathered from the survey by the U.S. Department of Education (1993) were kindergarten teachers' views on the impact of preschool on kindergarten readiness. Generally, it was felt by a minority of teachers that preschool or other formal education in reading or math was beneficial for children. It appeared to be strongly felt that the majority of what was being instructed during the early years in preschool and daycare should be what is taught during the children's first year of school. Further review of the findings showed that it was mainly felt by teachers, who taught in poverty schools, that more formal early education is beneficial for students before entering kindergarten.

Table 3

Qualities of Kindergarten Readiness as Described by Teachers

Qualities in order of preference
1. Physical health
2. Rest and well-nourished
3. Ability to communicate needs, wants, and thoughts verbally
4. Enthusiastic and curious in approaching new activities
Least preferred
1. Good problem solving skills
2. Ability to identify primary colors and basic shapes
3. Ability to use pencils and paint brushes
4. Knowledge of the alphabet
5. Ability to count to 20

Source: U.S. Department of Education, 1993

Parents' Views on Kindergarten Readiness

Not only is it important to review the literature on what kindergarten educators believe is considered kindergarten readiness, but it is also important to review what parents believe constitutes readiness. Parents are ultimately the people that decide when it is time for their child to enter kindergarten. For example, parents may choose to enroll their child in kindergarten based solely on the cut-off date, or they may choose to delay their child's entrance into kindergarten for one year until they feel that their child is more developed.

Parents hold a range of beliefs about what skills and social attitudes their child must possess in order to succeed in kindergarten (West, Hausken & Collins, 1995). It is important to look at these beliefs since they will influence the activities and programs in which they will engage their children during their pre-kindergarten years. A study conducted by the U.S. Department of Education's National Center for Education Statistics in 1993 showed that parents thought that it was essential for a child to be able to communicate his or her needs, wants, and thoughts verbally and that their child be enthusiastic in approaching new activities (West et al., 1995). This study also revealed that parents thought it was very important that their child be able to sit and listen and be able to take turns. The most important skills that parents thought were necessary for kindergarten readiness, in contrast to those of kindergarten teachers, was their child's ability to know the letters of the alphabet, being able to count to 20, and the ability to use a pencil and a paint brush (West et al., 1995).

Other studies have shown parents and teachers' beliefs about kindergarten readiness are similar. Diamond, Reagan, and Bandyk (2000) stated that the three most important skills that a child should have upon entering kindergarten to ensure success were listening, feeling confident, and following directions. This study also found that parents are more likely than kindergarten teachers to feel that academic skills are necessary for kindergarten and for determining whether their child is ready for kindergarten (Diamond et al., 2000). Also stated in the Diamond et al. article, was that those parents who strongly believe that academic and behavioral kindergarten readiness skills are necessary tend to enroll their children in more formal and informal education both at home and in community based programs such as preschools.

Many of the studies on parents' views about kindergarten readiness have also examined ethnic and educational backgrounds of the parents to see if there was a correlation between their beliefs and their education level. The research showed that parents' educational level influenced the types of activities and programs in which they enrolled their children (West et al., 1995). Diamond et al. Stated, "mothers that were less educated were more likely to endorse performance-orientated instruction and to engage in fewer informal learning activities at home than mothers with more education (2000, p. 3)." Those parents that have not completed high school, have graduated from high school, and have college education, view the skills of social and behavior appropriateness as most important (West et al., 1995).

Review of Kindergarten Curriculum and Pre-Kindergarten Curriculum

The intent of this portion of the literature review is to discuss the different types of skills that are taught in preschool and other pre-kindergarten programs as well as review the curriculum used in kindergarten. It is hoped that by reviewing common curriculums used in preschools and kindergarten one will gain a better understanding of what is considered "ready for kindergarten".

Today, Head Start and state pre-kindergarten programs serve about two-thirds of U.S. 4-year-olds living in poverty (Schweinhart & Weikart, 1998). The National Association for the Education of Young Children supports a developmentally appropriate practice, whereas academic critics feel that developmental programs are socially constructed and are not sensitive to cultural and individual differences (Schweinhart & Weikart, 1998). Schweinhart and Weikart (1998) outlined three curriculum models. Model one is a direct instruction model where the teacher presents materials and the

children respond to them. In the direct instruction model teachers clearly defined academic goals of reading, writing, arithmetic, and language. The second model is that of the high/scope curriculum. This is considered an open environment in which both the teacher and the child plan and initiate activities together. They intend to promote intellectual, social, and physical development. The third is the traditional nursery school. This consists of a child-centered approach in which the child initiates all activities. The goal of the traditional nursery school is to create an environment that a child can develop naturally.

Like the various curriculums for preschools and daycares, there are various curriculums for kindergartens. The type of kindergarten that is used varies, depending on state and district policies that govern curriculum. The type of curriculum that is used often depends on the type of kindergarten within a district. The different types of curriculum used depending on the type of kindergarten structure are reviewed here. The first is a developmental kindergarten in which the focus is on lower and slower levels of academic content offered in a regular kindergarten. Its goal is to prepare children for school and prevent retention at later grades (Nelson, 2000). The second curriculum is that which is centered around a multi-age classroom. The intent of this curriculum is to provide more individualized instruction that considers their individual developmental level, not their grade level (Nelson, 2000). The third curriculum is that tied to a full-day kindergarten. Here, academics are highly stressed (Nelson, 2000). However, some full-day kindergartens focus on both academics and daycare activities such as field trips, lunch, nap, and free time (Nelson, 2000). The final curriculum reviewed by Nelson (2000) is that of kindergarten with lower class size. Here, they do focus on academics,

but they are also able to do more one-to-one instruction and attend to individual needs, thus creating their curriculum around individual needs (Nelson, 2000).

It is important to first be familiar with the type of kindergarten that a child will be entering when deciding if the child is ready for kindergarten because their readiness will depend on the type of program provided (Nurss, 1987). It is important to also remember that in the past kindergarten was a child's initial school experience. "Now, kindergarten is an integral part of the elementary school's curriculum and the focus has shifted from social to cognitive or academic" (Nurss, 1987, p. 2). Today, many states fund full-day kindergartens because it is believed that children will have long term benefits from being in school longer. Kindergartens vary in the degree to which they stress cognitive skills and the individual districts determine this. Some kindergartens use a less structured curriculum with small group instruction, learning centers, and whole group language activities (Nurss, 1987), whereas some kindergartens use structured whole group, paper and pencil activities that are focused on academics such as reading and mathematics (Nurss, 1987).

Related Research on Preschool and Kindergarten Readiness

Much of the research relating to the topic of kindergarten readiness strictly addresses the effect of preschool on kindergarten readiness. However, much of this research is becoming outdated and a more extensive study of all types of educational settings, not just preschool, needs to be done to review the effects, if any, they have on kindergarten readiness. In this section, studies which address the effect of preschool on kindergarten readiness are reviewed.

Throughout much of literature it is evident that preschool is considered to have a

positive effect on kindergarten readiness skills. A U.S. Department of Education study found that young children who attended a center-based preschool program attained more literacy skills and numerical skills than children who did not attend the same type of programs (Elkind, 1996). Not only does preschool play an educational role in short term outcomes, such as kindergarten readiness, it has also been found to be beneficial for long-term outcomes. For instance, preschool programs have been shown to increase intellectual gains when a well-selected preschool program is attended. Preschool has also been found to improve a child's chances of becoming a better-achieving student through the primary grades when the length of preschool attendance is longer (Kimball et al., 1998).

The attendance of preschool for low-economic status students has been proven time and time again to be beneficial (Knight, 1991). It is necessary to look at the programs that these children attend in order to ensure that they are receiving the same quality of early education programs as their peers. This is important to look at so that no child is left behind or falls within the gaps when they all first begin school. As stated above, preschool has shown to increase cognitive functioning, school achievement, and social adjustment (Sawhill, 1999).

For the most part, the studies have shown that overall preschool is effective for kindergarten readiness. A study by Warden (1998) was conducted to measure the effects of developmental preschool on school readiness and kindergarten achievement for at-risk children. The results of the study showed that there was a significant difference in kindergarten readiness for children who attended preschool compared to those that did not attend preschool. The study also indicated that developmental preschool serves as an

early intervention strategy for improving kindergarten readiness skills. This study is supported by another that was conducted in Illinois, which examined the effect of Pre-kindergarten At-Risk programs. Their summary report for the 1990-91 school year showed that their program had a positive influence on kindergarten readiness (Illinois School District, 1992). Yet another study that was conducted to examine the effectiveness of pre-kindergarten programs on kindergarten readiness for both at-risk and non at-risk children found that the pre-kindergarten programs proved to be beneficial for kindergarten readiness (Bush, 1997). The Bush (1997) study concluded that in Liberty County, Georgia's public school pre-kindergarten program, both at-risk and not at-risk children were more developmentally prepared for kindergarten than their peers who did not attend the program.

Not only is there research on the benefits of preschool and Head Start for low-economic status children but there is research on the benefits for all children in general. With the nation's focus increasing on school reform, accountability, and increased achievement, there is more of an awareness from professionals, teachers, parents, and government of the importance of establishing a good foundation for children before they begin kindergarten. The interest of the government is increasing, with new federal laws and funding evolving to improve the quality of the schools and the skills which America's children possess. More federal funding for preschools and other educational settings is taking place because of the important role it plays in preparing children for the future (Sawhill, 1999).

There is some research on preschools, however, that show preschools have little or no effect on kindergarten readiness. This area of study appears to be scant. A study

by O'Brien (1991) revealed that early intervention programs such as preschools and Head Start did not have an effect on kindergarten readiness. The author stated that the reason for this was that what the children were perceived to have skills in, as measured by a kindergarten readiness scale, did not transfer to the public school. The author suggests that this lack of transfer may be due to the difference in classroom organization and teacher styles between preschool and primary school. Considering the numerous conflicting results of the studies there appears to be little consensus on what helps children become ready for kindergarten. So, the question that arises is: Is it the readiness skills, or the flexibility of students to adjust to a different environment or both, that are important for success in kindergarten? It is believed by some that the academic skills taught during early education programs are unnecessary and may discourage a child's natural desire to explore and learn (Horn, 2000). Horn (2000) suggests that half-day preschool is not harmful but that one should select a preschool program that is developmentally appropriate and not one that focuses exclusively on academics, because the family environment is just as beneficial as a preschool.

There are many differences between what the general public, government, teachers, and parents consider to be skills that prepare and ensure that a child is ready for kindergarten. Many of the studies that have been completed on the topic of kindergarten readiness and the influence of early education programs are outdated, focus on preschool alone, or are focused on only the low-economic status families. There is a need to clarify many issues when looking at programs that are beneficial for kindergarten readiness such as what constitutes readiness and what type of education setting is most beneficial to all children. The current study examines the latter of the two concerns.

Critical Analysis of the Research

Historically, the concept of school readiness has been around since the 1800's (Gillespie-Silver & Scarpti, 1992). Since the 1800's the individuals that are involved in educating children has progressed from being the sole responsibility of parents to being the responsibility of parents and educators. Not only are parents and educators invested in the readiness of today's children, but so also is the government. The government has invested money into programs since the 1930's to help ensure that children begin school ready to learn (Takanishi, 1999). More recently, the National Educational Goals (2000) have stressed the importance of children being prepared for school and that the first responsibility to ensure that they do is with their parents.

The concept of school readiness varies between teachers, parents, professionals in the field of education, and the government. Some parents, teachers, and professionals believe that a child is ready to begin school once they have the ability to pay attention, know their colors, and can participate in group activities. Others believe that children should enter kindergarten knowing the alphabet, numbers to at least 20, spell their name, and be able to get along with other children. The government's main guideline is that children who are born before September 1st of the year they will be entering school, are permitted to enter kindergarten (Laidig, 1998). The impact of not having a universal guideline to follow has increased the varying degree of developmental abilities within a classroom. It also appears that each district within each state has the ability to set forth their own guidelines as to what is considered readiness for kindergarten. The concept of what is developmentally appropriate is important to remember when determining if a child has the kindergarten readiness skills that will allow them to be successful. It is

crucial that kindergarten readiness skills include items that are developmentally appropriate and can assist teachers in developing curriculum that mirrors where children in their class are at developmentally.

Looking more specifically at the research, the beliefs seemed to vary mostly between teachers and parents. Teachers believe that a child who enters kindergarten should be physically healthy, rested and well-nourished, has the ability to communicate needs, wants, and thoughts verbally, and is enthusiastic and curious in approaching new activities (U.S. Department of Education, 1993). Teachers tend to not place as much importance on a child's academic skills as parents do. More and more parents are also enrolling their children into preschool and daycares so their children will obtain the readiness skills to enter kindergarten. This may due to the changing dynamics of the family or it may be due to increased attention on children and their education.

A review of current preschool and kindergarten curricula shows that the times of napping, cutting and pasting, playing, and minimal academic work is disappearing in the classrooms and a more academic curriculum has moved into its place. This may be due to the increased pressure that teachers have from upper grades, so that they expect the kindergarten students to enter their classroom with the ability to read, write, and do simple mathematics. The switch from having kindergarten as an introduction into school has also being shown by more school districts moving away from half-day kindergarten to full-day kindergarten programs.

Studies have been done in the past to see if certain federally funded and community based programs for pre-kindergarten children increase their kindergarten readiness. These researchers have arrived at varying conclusions as to the effectiveness

of preschool programs for kindergarten readiness. Much of the research that is done looks at at-risk, poverty children and not the overall readiness of all children. They also do not explain what type of kindergarten curriculum the children are being entered into and what constituted readiness for that district. Therefore, research should be completed that looks at children's readiness skills in individual districts. The kindergarten model that they are entering should be reviewed also. Since, there are no universal guidelines as to what is considered readiness for kindergarten, studies must continue to focus on children's benefits from preschool, daycare, or staying at home with family on their kindergarten readiness for individual districts. Future research should continue to look at the impact of socio-economic status and parent's education level to show the impact that they have. These studies will continue to look at the impact of government-funded programs for pre-kindergarten readiness in individual districts.

Chapter III

Methodology

The purpose of this study is to determine whether there is a difference between settings that prepare children for kindergarten and if there is a difference what settings are most beneficial. It is also the intent of this study to compare kindergarten readiness tool items to what is developmentally appropriate for children at that age. The section includes sample selection, instrumentation, research procedures used, and limitations to the study.

The intent of the study was to expand on past research and look at the effects of preschool, daycare, and staying at home with family on kindergarten readiness. It is also the intent of the study to review the items on kindergarten screening tools to what is developmentally appropriate.

Thus, the purpose of the study was multifold: 1) to examine the effectiveness of preschool, daycare, and staying at home with family on kindergarten readiness skills of children entering kindergarten; 2) if there is a difference in effectiveness, which settings are more effective in preparing children for kindergarten; and 3) to review items on kindergarten screening tools used to determine if developmentally appropriate skills were assessed;

Based on this purpose, the following research questions were addressed:

1. Are there differences in effectiveness between settings for preparing children for kindergarten?
2. If there are differences, what is the most beneficial setting for pre-

kindergarten children in terms of kindergarten readiness skills development?

3. Do kindergarten screening tools address the stated developmentally appropriate kindergarten readiness skills that children should possess?

Participants

Fifty-six male and female children and their parents were involved in the study; 30 of the participants were male and 26 were female (please see Table 4 in Chapter IV). The age of the students when the respective kindergarten readiness assessment tool was administered to them ranged for 4 years 8 months to 6 years 0 months. Participants for this study were sought through letters and emails to principals from 39 elementary school in Northwestern Wisconsin. Of the 39 letters and emails sent out, 7 schools responded that they did not want to participate, 6 indicated that they did not use a formal screening tool, 1 responded that they would like to participate but did not have a formal screening tool, 22 schools did not respond, and 3 area schools agreed to be part of the study. Thus, the response rate was 8%. Ethnicity and socio-economic status were not obtained as this data was not part of the information provided on the screening tool. The data for this study is not representative of the general population but only of this region.

Instrumentation

There were two different instruments used in this study. The first was part of the informed consent that parents filled out indicating that their child's kindergarten readiness scores could be included in this study (see Appendix A). As part of the informed consent, parents were asked to indicate what type of educational placement their child participated in during their pre-kindergarten years.

The second instrument used in this study was the participating schools'

kindergarten readiness assessment. The kindergarten readiness assessment was used to determine which academic and socialization skills beginning kindergartners have upon arriving for the start of their formal educational career. The children had already been administered the readiness test as part of the school kindergarten entrance criteria. Two schools developed their own kindergarten readiness assessment. These two instruments were developed by the schools and the third instrument was the Brigance K and 1 Screen. Data from the assessment tools was recorded on a flexible coding system designed by the researcher and research advisor. This system was a chart that included columns for the child's score on all items assessed on the kindergarten assessment tools, the child's birthdate, date of screening, sex, and pre-educational setting.

Procedure

Once the schools agreed to be part of the study, informed consent forms were sent out to all parents of current 2001-2002 school year kindergarten students at those schools, for their consent to allow their child's kindergarten readiness test data to be included in the study. The informed consent to the parents included a question regarding their child's pre-educational setting prior to entering kindergarten. Once informed consent was obtained, kindergarten readiness test scores were obtained. The researcher obtained each child's kindergarten readiness test scores and domain test scores by doing a file search at the respective schools. The data were recorded on a flexible coding system designed by the researcher and research advisor. Only the information needed to complete this study was obtained from the student's file.

Data Analysis

Correlations between pre-kindergarten setting and kindergarten readiness scores

were calculated to evaluate correspondence between kindergarten readiness and pre-kindergarten setting. A one-way analysis of variance was conducted to investigate relationships between preschool setting and performance on areas measured on the instruments. T-tests and F-tests were conducted to look for significant difference between settings by comparing mean scores for the various groups. The content of kindergarten readiness tests were reviewed and compared to identify preferred and important skills for kindergarten children to possess and what is considered developmentally appropriate. Due to the limited information provided on the screening instruments, language, ethnicity, and socio-economic status were not controlled for; therefore, results should be interpreted with caution.

Chapter IV

Results

The purpose of the study was multifold: 1) to examine the effectiveness of preschool, daycare, and staying at home with family on kindergarten readiness skills of children entering kindergarten; 2) if there is a difference in effectiveness, to examine which setting is more effective in preparing children for kindergarten; and 3) to review items on kindergarten screening tools used to determine if developmentally appropriate skills were assessed. In this section, the results of the present study are reported. It begins with a descriptive of the participants that is important and interesting for this study. A discussion of the research objectives are then reviewed.

This study sample was fairly homogenous. Participants were from three rural communities in Midwestern Wisconsin. The total number of participants was 56, which included 30 males and 26 females. The table also represents the number of students that attended each school, the largest number of students being in school B and the least in school A. The largest sample of students came from a rural community. Also shown is the number of students that attended either a commercial day care, in-home day care, preschool, Head Start, stayed at home with family members, or "not specified." The ages ranged from 53 months to 73 months with the mean age being 63 months and the modal age being 63 months (N=6).

Table 4

Demographics of Participants

Gender	**Frequency**	**Percent**
Male	30	53.6
Female	26	46.4
School Attended		
School A	14	25.0
School B	27	48.2
School C	15	26.8
Total	56	100.0
Pre-educational Setting		
Preschool	22	39.3
Commercial Daycare	4	7.1
In-Home Care	5	8.9
Family	15	26.8
Head Start	6	10.7
Other	4	7.1
Total	56	100.0

It is important to first look at the different areas that were assessed across the screening tools. Some of the areas that were assessed on one instrument were not found on the other screening tools. However, there were common factors across all tools.

Table 5 depicts the areas assessed and whether or not they were found on all three screening tools used for the study. In reviewing the tools used in the three different schools it was determined that a majority of the same basic concepts were assessed on the screening tool. There were only a few areas that were not assessed across all the schools.

Table 5

Areas Assessed on Screening Tools

	Tool 1	Tool 2	Tool 3
Personal Data	X	X	X
Color Recognition	X	X	X
Picture Vocabulary	X	X	
Visual Discrimination	X		X
Visual-Motor Skills	X	X	
Gross Motor Skills	X	X	
Rote Counting	X		X
Identifying Body Parts	X	X	
Follows Verbal Directions	X	X	
Numeral Comprehension	X		X
Writing Skills (prints name)	X		X
Speech Production	X	X	
Language Comprehension		X	
Language Structure		X	
Concepts of Print		X	X
Body Awareness		X	
Static Balance		X	
Discriminates between letters and numbers			X

The results addressing the research questions are primarily presented by comparing correlations between all groups' scores on the different areas assessed on the kindergarten screening tools. Next, performance on the areas assessed is presented for

each different pre-kindergarten setting. This will allow for one to view whether or not there is a setting that is more beneficial for kindergarten readiness.

Correlations

When correlations were computed between all the areas assessed on the kindergarten screening tools, significant correlations were found for some of the items. Of the areas assessed, not surprisingly, knowing one's personal data (i.e., first and last name and age) was significantly correlated with several other areas assessed (all at $p < .001$), including knowing address ($r=.704$), color recognition ($r=.725$), visual motor skills ($r=.527$), gross motor skills ($r=.423$), drawing a person ($r=.694$), language comprehension ($r=.643$), and naming body parts ($r=.417$). Significant correlations were also found between item color recognition and five other areas assessed, including picture vocabulary (naming pictures; $r=.364$, $p<.05$), visual motor skills (copying symbols; $r=.764$, $p<.001$), verbal directions ($r=.342$, $p<.05$), and drawing a person ($r=.677$, $p<.001$). Significant correlations were also found between picture vocabulary and gross motor skills ($r=.769$, $p<.001$), verbal directions (one and two-step directions; $r=.837$, $p<.001$), body awareness ($r=.816$, $p<.001$), and static balance ($r=.749$, $p<.001$). Also, there was a significant correlation between verbal directions and picture vocabulary ($r=.837$, $p<.001$); naming body parts and language comprehension ($r=.684$, $p<.001$).

Significance Tests

A one-way analysis of variance was conducted to investigate relationships between preschool setting and performance on areas measured on the instruments. Appendix B shows a table of all F Tests completed.

Table 6

Means and Standard Deviations by Settings for Children

Item Assessed (Mean score; SD)	‡Other *(4)	Preschool (22)	Commercial Daycare (4)	In-Home Care (5)	Family (15)	Head Start (6)
Color Recognition (0-10)	10.0; .00	9.77; .53	9.75; .50	9.80; .45	8.33; 2.74	7.83; 2.56
Number Comprehension (0-10)	10.0; .00	10.0; .00	4.00; -	10.0; .00	9.20; 1.79	10.0; .00
Naming Body Parts (0-5)	4.25; .65	4.50; .81	2.00; -	3.88; .85	3.23; 1.03	3.00; 1.00

‡ - Other = Unspecified setting or multiple/combination settings
*- denotes (N) for each setting

Significant differences between groups were found for color recognition, $F(5,50)=2.422$, $p=.048$; number comprehension, $F(5,21)=11.647$, $p=.001$; and naming body parts, $F(5,34)=4.502$, $p=.003$. Specifically, significant differences were found between Preschool and staying at home with family for color recognition $t(35)=2.412$, $p=.021$; and naming body parts $t(26)=3.644$, $p=.001$. Significant differences were also found between Preschool and Head Start in color recognition $t(26)=3.452$, $p=.002$, and naming body parts $t(18)=2.874$, $p=.010$. It is important to note that the number of children that completed an item from certain settings (N) was too small to compare some groups. It should be reiterated that because key demographic variables were not controlled (e.g., ethnicity, SES), confounds that affect the scores (e.g., higher rate of children with severe disabilities in Head Start or potentially higher rate of Hmong-American children in stay-at-home settings); the results should be interpreted with

caution.

Furthermore, mean scores were derived for all the areas assessed and compared across the different pre-Kindergarten placement settings. Table 7 shows the mean scores for all the items assessed. There were some patterns that emerged that showed settings that had consistently lower and consistently higher scores on all areas assessed. The preschool settings that were consistently lower were Head Start and staying at home with family. Those that were consistently higher were preschool, commercial daycare, and in-home daycare.

Table 7

Mean Scores for Areas Assessed by Pre-kindergarten Setting

Preschool Setting	Mean Score (highest score possible)
Personal Data (10)	
Preschool	8.76
Commercial Daycare	6.00
In-home Daycare	7.17
Family	7.73
Head Start	6.59
Other	9.0
Knows Address (1)	
Preschool	.36
Commercial Daycare	.00
In-home Daycare	.00
Family	.20
Head Start	.00
Other	.50
Color Recognition (10)	
Preschool	9.77
Commercial Daycare	9.75
In-home Daycare	9.80

Family	8.33
Head Start	7.83
Other	10.0
	Picture Vocabulary (10)
Preschool	9.71
Commercial Daycare	10.0
In-home Daycare	9.50
Family	9.27
Head Start	9.50
Other	10.0
	Visual Motor Skills (10)
Preschool	8.76
Commercial Daycare	10.0
In-home Daycare	9.50
Family	6.89
Head Start	9.50
Other	9.08
	Gross Motor Skills (10)
Preschool	9.76
Commercial Daycare	10.0
In-home Daycare	9.50
Family	8.18
Head Start	7.25
Other	10.0
	Draw A Person (9)
Preschool	7.33
Commercial Daycare	-
In-home Daycare	5.50
Family	5.67
Head Start	.00
Other	7.50
	Number Comprehension (10)
Preschool	10.0
Commercial Daycare	4.0
In-home Daycare	10.0
Family	9.20
Head Start	10.0
Other	10.0

	Language Comprehension (8)
Preschool	6.63
Commercial Daycare	7.0
In-home Daycare	6.0
Family	4.60
Head Start	4.33
Other	5.50

	Verbal Directions (5)
Preschool	4.56
Commercial Daycare	5.00
In-home Daycare	5.00
Family	4.32
Head Start	3.75
Other	5.00

	Rote Counting (5)
Preschool	4.84
Commercial Daycare	5.00
In-home Daycare	5.00
Family	4.56
Head Start	5.0
Other	5.0

	Naming Body Parts (5)
Preschool	4.50
Commercial Daycare	2.00
In-home Daycare	3.88
Family	3.32
Head Start	3.00
Other	4.25

	Visual Discrimination (10)
Preschool	9.86
Commercial Daycare	10.0
In-home Daycare	10.0
Family	9.80
Head Start	10.0
Other	10.0

	Syntax and Fluency (10)
Preschool	10.0
Commercial Daycare	10.0
In-home Daycare	10.0
Family	10.0
Head Start	10.0
Other	10.0
	Body Awareness (4)
Preschool	2.33
Commercial Daycare	-
In-home Daycare	4.00
Family	2.50
Head Start	-
Other	3.50
	Static Balance (2)
Preschool	2.00
Commercial Daycare	-
In-home Daycare	2.00
Family	1.50
Head Start	-
Other	2.00
	Writing Scores (5)
Preschool	5.00
Commercial Daycare	5.00
In-home Daycare	5.00
Family	4.00
Head Start	5.00
Other	5.00
	Identifies Shapes (8)
Preschool	6.00
Commercial Daycare	5.67
In-home Daycare	7.00
Family	5.25
Head Start	3.50
Other	-

	Tells Numbers from Letters (1)
Preschool	.80
Commercial Daycare	1.00
In-home Daycare	1.00
Family	.50
Head Start	.50
Other	-
	Recognizes Numbers (10)
Preschool	6.60
Commercial Daycare	7.67
In-home Daycare	10.0
Family	6.00
Head Start	6.50
Other	-
	Concepts of Print (9)
Preschool	7.00
Commercial Daycare	7.00
In-home Daycare	7.00
Family	6.25
Head Start	7.00
Other	-

Comparison for Developmentally Appropriate Skills on Screening Tools

When comparing what the literature states as developmentally appropriate skills for children to possess at the time of kindergarten to the items on the three kindergarten tools assessed it can be seen that a majority of developmentally appropriate items were assessed. Table 8 shows that all three schools assessed gross and fine motor skills. Two schools assessed language and communication as well as math readiness skills. School C did not assess language and communication and School A did not assess math readiness skills. None of the three schools assessed social-emotional development.

Table 8

Correspondence between Developmentally Appropriate Skills and Kindergarten Readiness Screening Tool Items

	School A	School B	School C
Gross Motor Skills	X	X	X
Fine Motor Skills	X	X	X
Language and Communication Skills	X	X	
Math Readiness Skills		X	X
Social-Emotional Development			

Chapter V

Discussion

The results of the present study are valuable in that there is a lack of research on the effects of pre-kindergarten setting on kindergarten readiness. This study is also valuable in that it compares what the literature states is developmentally appropriate, teachers' perceptions of what skills are important for entering kindergarten, and what is assessed on kindergarten readiness tools. The results of this study show that there are differences between scores on specific areas assessed in screening tools and pre-kindergarten setting.

This study addressed three research questions. A restatement of each research question is followed by a discussion of the results for that question. The first two research questions are addressed together as they are closely tied to one another.

1. Are there differences in settings that prepare children for kindergarten?
2. If there are differences, what is the most beneficial setting for pre-kindergarten children in terms of kindergarten readiness skills development?

The mean scores on all the areas assessed for each of the pre-kindergarten settings indicate that there were settings that scored consistently lower and settings that scored consistently higher. Not surprisingly, children in Head Start scored the lowest on all items assessed. This finding may be due to the population of children that are served in this setting, which tends to be the most at-risk and some with disabilities, thus needing early intervention to help prepare them for their school years. It should be noted that there are possible differences in culture, socio-economic status, and language that may confound the results. Another pre-kindergarten setting group that scored consistently

lower was staying at home with family. This finding may be due to children not receiving the same amount of repetition in academics and structure as their peers in other pre-kindergarten settings.

The setting groups that were found to score consistently higher on items assessed on the kindergarten screening tools were those children in preschool, commercial daycare, and in-home daycare. This finding too is not surprising, as these environments tend to spend time in structured, consistent, and rigorous practice of pre-kindergarten skills. They tend to be designed for these types of experiences and parents are expecting their children to be learning these skills while also learning good social skills with their peers.

In sum, this study found that attending a preschool, commercial daycare, or in-home daycare best prepared a child for kindergarten, as assessed by kindergarten screening tools. As stated previously, this may be due to the amount of time, structure, and expectations that are placed on these children to be working on these skills while in these settings. However, it is important to point out that adults in all settings do want children to be ready for kindergarten; however, the setting that they are in may be an indicator of how well they will do on a kindergarten screening tool. This is the case where children in a Head Start program are those children that are identified as at-risk or with disabilities and in need of intervention. Children that attend preschools and daycares tend to be the children that are not at-risk. Children that stay at home with family may have scored lower due to less structure and time spent on pre-kindergarten skills. Another reason for children that stayed at home with family scoring lower could be that the parents are not aware of what skills should be worked on to prepare them for

kindergarten or they do not want to stress them with activities which will be experienced later in kindergarten. Also, children maybe learning skills that are not assessed on kindergarten screening tools.

An interesting finding from this study is that those children who scored well on the item of knowing personal data (i.e., first and last name and age) did better on the items that assessed whether they knew their address, color recognition, visual motor skills, gross motor skills, drawing a person, language comprehension, and naming body parts.. Overall, this finding indicates that a child knowing his or her full name and age is a good indicator of them knowing other skills that would be assessed on kindergarten screening tools.

Other correlations that were significant were that if children could recognize their colors they were able to name pictures, copy symbols, and follow verbal directions and draw a person. Finally, significant correlations were found between picture vocabulary and gross motor skills, verbal directions, body awareness, static balance; and verbal directions and picture vocabulary and naming body parts and language comprehension. Given all the significant correlations, one can see that many of the similar items assessed are indicators of doing well on other items.

3. Do kindergarten screening tools address the stated developmentally appropriate kindergarten readiness skills that children should possess?

This study also examined whether or not screening tools were assessing skills of children entering kindergarten that were developmentally appropriate as stated in the literature review. As shown in the results section, most of what is considered developmentally appropriate was assessed in some way on the three kindergarten

screening tools. Yet, important social-emotional developmental milestones were not assessed on the screening tools. This area was also a preferred area by teachers for children entering kindergarten. Table 9 identifies what teachers view as preferred and least preferred skills that children should have when entering kindergarten and whether or not the screening tools assessed that skill. This area was also a preferred area by teachers for children entering kindergarten. The table also shows that none of teacher preferred skills were assessed in any manner, yet, most of the least preferred skills were assessed by the screening tools. Table 9 does not show is the number of items that were assessed on the kindergarten screeners that were not indicated as developmentally appropriate or necessary skills. These areas include, knowing personal data, visual discrimination, identifying body parts, concepts of print, body awareness, static balance, and discrimination between letters and numbers.

At the conclusion of this study, it is still difficult to describe what the "necessary" skills are that children should have when entering kindergarten. It is easy to see that what is considered developmentally appropriate is not all that is assessed anymore for children when entering kindergarten. More and more demands are being placed on children to achieve academic skills earlier, and to be "smarter" younger. In turn, this places pressure on teachers to expect and teach more to children at a younger age. Not enough emphasis is placed on social and emotional skills that children have when entering kindergarten. This is an important area that should be assessed and taught to children.

Table 9

Correspondence between Teachers' Perceptions of Preferred Skills and Kindergarten Readiness Screening Tool Items

	School A	School B	School C
Teacher Preferred			
Physical Health			
Rest and well-nourished			
Communicate needs, wants, thoughts verbally			
Enthusiastic and Curious in approaching new activities			
Teacher Least Preferred			
Problem Solving Skills			
Identify Colors		X	X
Identify Shapes	X	X	X
Use pencil/paint brush	X	X	
Knowledge of Alphabet			X
Ability to Count to 20		X	X

Implications for Educators and Parents

Even though there were not strong patterns that emerged from the results of this study, there were some significant findings (e.g., children in Head Start and staying at home with family scoring lower than preschool children in color recognition and naming

body parts). It was also interesting that children staying at home with family members tended to score lower on areas assessed on the screening tools. As stated previously, this may be due to children staying at home not having the rigorous structure of teaching pre-kindergarten skills as their peers have in other settings. Another hypothesis may be that what families tend to teach their children while at home may not be assessed on kindergarten readiness tools.

With the changing times of our education, it is important that educators and parents be aware of what is developmentally appropriate for children to learn. However, this is a difficult task as there is pressure for children to learn skills at an earlier age than in the past. Yet, expecting children to learn academic skills and not focusing on social and emotional development would be tragic. Pushing academics at an early age, one that is not developmentally appropriate, is not appropriate. This is because doing so places unnecessary pressure on children to perform and as a result may lower their self-esteem. When schools are developing their kindergarten screening tools, they should compare it to what their curriculum requires as well what is developmentally appropriate. The latter is imperative in that if tasks and skills required of children are not developmentally appropriate we are only setting our children up for failure at a young age. One must consider that expecting children to perform tasks that are not developmentally appropriate may be creating disabilities. Schools should be using the data obtained from the kindergarten screening tools to better prepare the school for the children entering.

It is also important for schools to be aware of the age range that exists between kindergarten students. This age range may contribute to the wide range of skills that are seen on kindergarten screeners as well as in the classroom. Some people may choose to

retain children due to scores on kindergarten readiness screeners or for other reasons. Some of these reasons may be due giving children a head start in activities (i.e. sports) or to develop more socially and emotionally. Yet, retaining children has been proven to be ineffective and creates challenges later for students.

Parents and educators should teach children the skills in all areas of development, not just academic skills. They need to be able to effectively communicate and socialize both with their peers and adults. Another important aspect of development is that children have adequate skills in the emotional area and learn the skills to be a mentally healthy child. In terms of academic skills, teaching children pre-reading skills (i.e. reading from left to right, top to bottom, recognition of letters and number) are important. Identifying shapes and having well developed gross and fine motor skills is also important.

Limitations and Directions for Future Research

One limitation of this study is the degree to which the sample is representative of the population. The study does not include a multicultural population. Also, the sample was from rural areas in Wisconsin. Therefore, the generalizability of the findings is minimal. The second limitation is that socio-economic status, ethnicity, and language were not controlled for. This was not addressed on the screening instruments and because it may be an issue of confidentiality. As such, these three demographics could be confounds that affect the results of the study so the results need to be interpreted with caution. Third, two of the survey forms were not standardized. Thus, children from larger cities and suburban areas were not included in this investigation. Lastly, those parents that consented to participate may have been subject to selection bias issues; they may

have been motivated to participate due to their own concerns regarding their child's kindergarten readiness or their interest in educational issues.

Future research needs to be done to examine what is currently considered developmentally appropriate, as well as to assess what should be considered pre-kindergarten skills. This work is greatly needed as the skills required for school children are beginning to be expected at younger and younger ages. The literature review shows that much of the research on this topic is outdated. Current research would provide updated information for educators, parents, and the government to best prepare our children to be successful in school. It would also allow for children to grow at paces that are allowing for success in their lives instead of feeling the pressure of having to be the best.

Conclusion

There is a considerable amount of literature on what is considered readiness for kindergarten. Past research has also attempted study what setting is most beneficial for children to learn the necessary kindergarten skills. However, much of this research is outdated. Also, the data does not take into account the types of curriculum that children are now encountering in school and the skills that will prepare them for success.

Much of the stress involved in providing our children with the skills they will need to be successful in kindergarten comes from the added pressures of children being expected to know more at a younger age. In order for parents and educators to provide helpful instruction to children for their success in kindergarten, that is developmentally appropriate, more research needs to be conducted.

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Appendix A

CONSENT FORM

Dear Parent or Guardian:

Your child's kindergarten class has an opportunity to take part in a study about the influence of pre-kindergarten setting on kindergarten readiness. The principal has fully approved this project. I am asking your permission for your child to be included in this study.

A file review of records will be conducted in order to gather the relevant data regarding this study. The data that will be collected from your child's file is their kindergarten screening/readiness score and information regarding their pre-kindergarten setting prior to entering kindergarten (i.e. preschool, in-home care, family, etc.). However, if the setting prior to entering kindergarten is not available I am asking you to check the type of setting that your child was in at the bottom of this form.

The researcher will not access any other information from your child's file. The researcher will not have any direct contact with your child at anytime during the study. Your child's name will only be used to ensure all data has been collected and this information will be kept confidential.

If you have any questions about the study, please call me at (715) 831-0341, or my advisor at (715) 232-2204. Please sign the attached form indicating whether or not you have agreed to have your child participate and return it by **May 6, 2002**.

Questions or concerns about the research study should be addressed to Sarah Delforge, the researcher, (715) 831-0341 or Dr. Scott Orme, the research advisor, (715) 232-2204. Questions about the rights of research subjects can be addressed to Sue Foxwell, Human Protections Administrator, UW-Stout Institutional Review Board of the Protection of Human Subjects in Research, 11 Harvey Hall, Menomonie, WI, 54751, phone (715) 232-1126.

Sincerely, Sincerely,

Researcher Research Advisor

___I **do** agree to allow my child _____, to participate in this study.

___I **do not** agree to allow my child _____, to participate in this study.

Signature _____ Date_____

Please check ONE of the following regarding your child's pre-kindergarten setting:

___Preschool ___ Commercial Daycare ____In-home care
(Less than 10 children)

___Family ___Head Start
(Stay at home
with family member)

RETURN A SIGNED COPY AND KEEP A SIGNED COPY

Appendix B

Table of F Test Results

Items Assessed	**F**	**Significance**
Personal Data Response	1.352	.266
Knows Address	.624	.683
Color Recognition	2.422	.048
Picture Vocabulary	.528	.754
Visual Motor Skills	1.024	.418
Gross Motor Skills	1.007	.428
Draw a Person	1.267	.364
Number Comprehension	11.647	.000
Language Comprehension	1.369	.272
Verbal Directions	.473	.794
Rote Counting	.530	.752
Naming Body Parts	4.502	.003
Visual Discrimination	.142	.980
Syntax and Fluency	_	_
Identifying Shapes	.762	.599
Recognition of Letters from Number	.496	.773
Recognition of Numbers	.393	.842
Concepts of Print	.120	.984
Body Awareness	.285	.907
Static Balance	.323	.884
Writing Scores	.856	.527