



Montana kindergarten teachers beliefs and practices
by Debra Hawsey Hamilton

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education
Montana State University
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Abstract:

This study identified self-reported philosophical beliefs and practices of certified professionals currently teaching kindergarten in Montana public schools. Congruence between identified philosophical beliefs and practices was determined. In addition, this study examined the relationships among selected demographics and the philosophical beliefs and the classroom practices of those teachers. Lastly, each participant's perception of factors influencing their practices was investigated.

The Teachers Questionnaire developed by Charlesworth and associates was used to gather the data for this study. The survey instrument was distributed to 230 randomly selected certified personnel currently teaching kindergarten in Montana. A response rate of 86% was realized, with 197 respondents returning the instrument.

Based on analysis of the data using a combination of T-test, Pearson and Spearman Correlation Coefficients, and multiple regression procedures, the following conclusions were drawn. Philosophical beliefs are reflected in classroom practices. Teachers' perceptions of influences over classroom practices have an impact on beliefs and practices. The following independent variables are associated with a higher rating in teachers' developmentally appropriate beliefs: obtainment of a Master's degree, membership in the Montana Association for the Education of Young Children, and working in larger Montana school districts.

The following independent variables were found to be associated with a higher rating in developmentally appropriate classroom practices: developmentally appropriate beliefs of the teacher, more experience in teaching kindergarten, obtainment of a Master's degree, membership in the Montana Association for the Education of Young Children, and working in larger Montana school districts.

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BELIEFS AND PRACTICES

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APPROVAL

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This thesis has been read by each member of the graduate committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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ABSTRACT

This study identified self-reported philosophical beliefs and practices of certified professionals currently teaching kindergarten in Montana public schools. Congruence between identified philosophical beliefs and practices was determined. In addition, this study examined the relationships among selected demographics and the philosophical beliefs and the classroom practices of those teachers. Lastly, each participant's perception of factors influencing their practices was investigated.

The Teachers Questionnaire developed by Charlesworth and associates was used to gather the data for this study. The survey instrument was distributed to 230 randomly selected certified personnel currently teaching kindergarten in Montana. A response rate of 86% was realized, with 197 respondents returning the instrument.

Based on analysis of the data using a combination of T-test, Pearson and Spearman Correlation Coefficients, and multiple regression procedures, the following conclusions were drawn. Philosophical beliefs are reflected in classroom practices. Teachers' perceptions of influences over classroom practices have an impact on beliefs and practices. The following independent variables are associated with a higher rating in teachers' developmentally appropriate beliefs: obtainment of a Master's degree, membership in the Montana Association for the Education of Young Children, and working in larger Montana school districts. The following independent variables were found to be associated with a higher rating in developmentally appropriate classroom practices: developmentally appropriate beliefs of the teacher, more experience in teaching kindergarten, obtainment of a Master's degree, membership in the Montana Association for the Education of Young Children, and working in larger Montana school districts.

CHAPTER 1

ORIENTATION OF STUDY AND REVIEW OF LITERATURE

Introduction

The first kindergarten opened in the United States in 1855. This program and those that followed were primarily concerned with the health, welfare, and education of the children they served. These early American kindergartens were patterned conceptually after the German kindergartens of Froebel which emphasized natural learning through play and exploration of the environment. The very word "kindergarten," which literally translates from the German as garden of children, expresses the need for nurturing the young child. Kindergarten was seen as a way to help poor children overcome their environmental disadvantages, to stimulate learning for all children during the crucial early years of development, and to ease children into elementary school (Woodill, 1988).

Although many Froebelian ideas and materials were changed and updated, this basic philosophy of stimulating and nurturing children's development continued as the major focus of American kindergarten for almost a century. The work of G. Stanley Hall and John Dewey reinforced the fundamental principles upon which early kindergarten programs were based and led the way for the

development of more updated teaching methods and materials based on research by the child study movement. Patty Smith Hill's essay, *Kindergarten*, pointed out:

If an intelligent observer who had not visited the kindergarten for half a century entered one today, like old Rip Van Winkle he would rub his eyes with surprise at the marked improvements which have been substituted since his last visit. Such an observer would see the same Froebelian theories of self-activity and development used as guiding principles, but he would discover them applied through far better methods of teaching and with new improved materials and equipment substituted. (1942/1992, p. 1965)

Today, reinforcing those concepts of the early kindergartens, child development research and the constructionist theory of learning proposed by Piaget have led to the development of guidelines for a kindergarten curriculum which nurtures young children's natural curiosity and eagerness to learn about their environment (e.g., Bredekamp, 1987; Day & Drake, 1986; Moyer, Egertson, & Isenberg, 1987; Shapiro & Biber, 1972; Spodek, 1988a; Warger, 1988). Much of the research conducted in the last ten years provides evidence supporting the concept of an exploratory, developmental approach to kindergarten curriculum (e.g., Dweck, 1986; Gottman, 1983; Parker & Asher, 1987). This developmental, child-centered approach to education is based on the belief that children construct knowledge for themselves through interaction with the environment, thus the title constructivist education. Constructivist kindergarten curriculum is based on establishing an educational setting which encourages children to explore and interact with the environment and each other in developmentally appropriate ways with guidance from the teacher (DeVries & Kohlberg, 1987).

After another half century, however, if Patty Smith Hill's "intelligent observer" entered a typical 1992 American kindergarten, he would be in for quite a shock. Things have changed! Research evidence overwhelmingly supports the Froebelian philosophical foundation. Thus, it is difficult to understand why American kindergartens have moved away from the exploratory, constructivist concept on which it was built. In 1986, 84% of public school kindergartens were identified as having an academic or preparatory (for first grade) emphasis. Only 8.6% were identified as having a developmental focus similar to those found in Froebelian kindergartens (Educational Research Service, 1986). These kindergarten programs have moved away from a curriculum based on exploration and discovery to one which uses workbooks and rote memorization. Why have kindergarten programs become more academically focused when child development theories clearly support the earlier, nurturing nature of kindergartens?

There are many possible reasons for this change in direction of program practices in today's kindergartens. The Association for Childhood Education International's (ACEI) position paper on appropriate kindergarten practices identified the following reasons for this shift in curriculum emphasis: "(1) societal pressure, (2) misunderstanding about young children's development, (3) aggressive marketing of commercial material largely inappropriate for kindergarten age children, (4) a shortage of teachers specifically prepared to work with young children, and (5) the reassignment of trained teachers in areas of declining enrollment" (Moyer et al., 1987, p. 235).

These reasons could be generally grouped into four categories:

(1) differences in opinions about the purpose of kindergarten, (2) increased preschool experiences, (3) the embracing of alternative learning theories (especially behaviorism), (4) and a misunderstanding of the inherent differences in the way children construct knowledge (Kamii, 1985; Spodek, 1982, 1988a).

As more and more children began attending day care and nursery schools, kindergarten was no longer the child's first exposure to learning outside the home. Today, more than half of all kindergarten children have had some type of educational experience before entering kindergarten (Elkind, 1987; Spodek, 1988a). There are two reasons for the increase in preschool and day care attendance of children under five. In 1982, 50% of all mothers with preschool children were in the labor force as compared to 12% in 1950. By 1995, it is predicted that 66% of all preschool children will have mothers in the labor force (Children's Defense Fund, 1987). These changes in family demographics along with the preponderance of evidence of the importance of quality early childhood experiences have combined to create public demand for programs serving the needs of young children prior to kindergarten (e.g., Berrueta-Clement, Schweinhart, Barnett, Epstein, & Weikart, 1984; Consortium for Longitudinal Studies, 1983; Hauser-Cram, Pierson, Walker, & Tivnan, 1991; Lazer, Darlington, Murray, & Snipper, 1982).

As the demographics of the society they served began to change, the emphasis of kindergarten programs also changed as they slowly became a part of the public schools (Washington, 1988a, 1988b). Primary school curricula had come

under the direct influence of Skinner's Behavioristic Learning Theory. The goals and objectives, as well as the teaching methods employed, reflected the sequential, programmed approach to learning endorsed by behaviorists. Many kindergartens became more academically focused as this behavioristic primary curriculum was forced downward into the kindergarten program (Bredekamp & Shepard, 1989; Shepard & Smith, 1988a, 1988b; Spodek, 1982; Uphoff & Gilmore, 1986). Several recent movements in the United States have sought to revise or restructure education. The emphasis on subject matter such as math and science in the 1960's came after the launching of Sputnik in 1957 (Bryant & Clifford, 1992; Connell, 1987). The "back to basics" curriculum surfaced in the 1970's (Ornstein, 1988; Spodek, 1982), followed by the cry of accountability in the 1980's (Spodek, 1982; Webster, 1984). Each has had significant effects on elementary school curriculum (Lawler & Bauch, 1988). For instance, textbook publishers created "teacher-proof" text books and programmed instruction curriculum. Standardized testing became more prominent until it was often viewed as driving the curriculum (Kamii, 1985). These changes came about as attempted solutions to the perceived problems and failures of the American educational system. The American public and the behavioristic sector of educators both embraced an increased academic focus as the answer to perceived inadequacies (Kamii, 1985). These reforms failed to recognize that young children are not "miniature adults" but actually learn in qualitatively different ways (Elkind, 1986) and that behaviorism can explain some types of

learning but falls short in explaining the development of higher level thinking skills (Kamii, 1985; Lawler & Bauch, 1988).

The change to a more academic emphasis of curriculum also led to many problems in the primary grades and especially kindergarten. Retention rates in kindergarten have risen even though research evidence demonstrates little support for this practice (Delidow, 1989; Peterson, DeGracie, & Ayabe, 1987). Children as young as five and six are demonstrating signs of stress such as ulcers, stomachaches, headaches, etc. and increased aggression at a growing rate (Burts, Hart, Charlesworth, & Kirk, 1990; Burts, Hart, Charlesworth, Fleege, Mosley, and Thomasson, 1992; Honig, 1986). A rise in academic instruction usually means a decrease in play which has been found to be extremely important for the development of imagery, imitation, spatial relationships, and language development, all of which have direct impact on the ability to understand and express language (a necessary foundation for learning to read) (Gallagher & Coché, 1987; Gallagher & Reid, 1983; Piaget & Inhelder, 1969). Having varied and numerous opportunities to play tends to improve children's subsequent academic achievement (Glickman, 1979). In addition to the above problems with a strong emphasis on academic gains, longitudinal research is beginning to find that children exposed to early pressure to succeed academically may "burn out" or lose the "disposition to learn" (Katz, 1988; Miller & Bizzell, 1983).

Early childhood educators have demonstrated increased concern over the shift in kindergarten curricula from one which nurtures exploration and discovery to

one which emphasizes acquisition of academic skills (Bredekamp & Shepard, 1989; Charlesworth, 1989; Doremus, 1986; Postman, 1983). Dr. David Elkind, noted early childhood psychologist, has written numerous articles and books questioning this curriculum shift, which he refers to as "miseducation" (Elkind, 1986, 1987, 1989). The two major national organizations dedicated to the promotion of quality early childhood programs, NAEYC (National Association for the Education of Young Children) and ACEI, have both released position papers giving their description of quality kindergarten programs and practices (Bredekamp, 1987; Moyer et al., 1987). Several other national education associations have released position statements endorsing this developmental philosophy for early childhood education (Council of Chief State School Officers, 1988; Greenberg, 1990; National Association of State Boards of Education, 1988; Southern Association for Education for Children Under Six, 1984).

Early childhood educators in the state of Montana have also shown support for developmentally appropriate kindergarten practices. The Montana Office of Public Instruction (OPI), after examining kindergarten curriculums in the other 49 states, prepared a handbook describing appropriate practices for Montana kindergartens (OPI, 1989). The program description in this handbook closely resembles the practices endorsed by the national early childhood organizations such as NAEYC and ACEI. There has also been an increase in the number of public school primary teachers attending the state early childhood conference and joining the state affiliate of NAEYC (MAEYC membership and conference records).

Studies conducted throughout the nation have noted the increased pressure felt by kindergarten teachers to move toward a more academically focused program (Bredekamp et al., 1989; Fromberg, 1989). Recent studies have found that many kindergarten teachers have adopted practices they consider inappropriate and are suffering from the dissonance caused by the conflict between philosophical beliefs and the practices they are being asked to implement (Charlesworth, Hart, Burts, & Hernandez, 1991; Hatch & Freeman, 1988; Hitz & Wright, 1988; Rusher, McGrevin, & Lambiotte, 1992).

Is this the case in Montana? What kinds of programs are found in Montana kindergartens? What is the basic educational philosophy of Montana kindergarten teachers? Are kindergarten teachers in Montana implementing programs which they deem inappropriate? What is determining the direction of Montana kindergarten curriculum? This study will seek clarification of these questions.

Statement of the Problem

This study identified self-reported philosophical beliefs and practices of certified professionals currently teaching kindergarten in Montana public schools. Congruence between identified philosophical beliefs and practices was determined. In addition, this study determined the relationships among selected demographics and the philosophical beliefs and classroom practices of those teachers. Lastly, participants' perception of factors influencing their practices were investigated.

Need for This Study

Kindergarten is a growing and vital part of most elementary schools today. The number of children enrolled in kindergarten is growing nationwide. Although kindergarten attendance is optional in 43 states (including Montana), in 1988, 94% of all five year olds were enrolled in kindergarten or first grade as opposed to 67% in 1970 (Karweit, 1988).

In addition to an increase in percentage of children attending kindergarten, there is also a national trend to increase the kindergarten day. In 1985, approximately 22% of kindergartens were full day programs (Jalongo, 1986). In 1989 an estimated 45% of children enrolled in kindergarten attended full day programs (Olsen & Zigler, 1989).

There is little doubt that kindergarten programs throughout the United States are changing, not only in numbers and length of day, but in content and emphasis as well. Until around twenty years ago, kindergartens in the United States were basically developmentally oriented (Martin, 1985; Ransbury, 1982; Spodek, 1982; Weber, 1984). However, there appears to be a consensus among early childhood educators that a major-shift has occurred in kindergarten curricula (e.g., Connell, 1987; Durkin, 1987, 1990; Elkind, 1986; Freeman & Hatch, 1989; Fromberg, 1989; Hitz & Wright, 1988; Kamii, 1985; Moyer et al., 1987; Spodek, 1988a; Walsh, 1989; Washington, 1988b). This shift has gone from a child-centered, developmental focus to an emphasis on academic, specific skill acquisition. Spodek

(1982) described this trend as a move away from programs reflecting the needs and interests of the young child to programs primarily concerned with achievement of specific skills.

With an increase in the number of academically oriented programs (Educational Research Service, 1986) has come an increase in problems as well. Two problems of note causing concern throughout the nation are retention and stress (Shepard & Smith, 1988a, 1988b). Kindergarten retention, including the development of "readiness or transitional" classes, "redshirting" or delaying entrance to kindergarten of age-appropriate children by parents, and the use of screening instruments to assess readiness for kindergarten before admittance, has increased (Cryan, Sheehan, Wiechel, & Bandy-Hedden, 1992; Gullo & Burton, 1992; Walsh, 1989). This trend clearly disregards the data demonstrating the negative effects on self-esteem (e.g., Gage & Berliner, 1979; Sheehan, Cryan, Wiechel, & Bandy-Hedden, 1991) and the ineffectiveness of such retention practices (e.g., Holmes & Matthews, 1984; Smith & Shepard, 1986). In addition, several recent studies have found that as the program emphasis has shifted in favor of academics there has also been an increase in stress related illness and ailments among kindergarten children (Burts et al., 1990, 1992; Dickinson & Snow, 1987; Honig, 1986).

Conversations with those involved with kindergarten education almost always turn to concerns with these curricula changes. Articles with titles such as: "Should education for the young child focus on the whole child or on specific skills?" and "Working with mandates: They said I have to" appear frequently in early childhood

journals such as Childhood Education and Young Children questioning these changes and addressing educators concerns. A growing number of sessions at state and national conventions are addressing the concerns expressed by kindergarten teachers over being asked to implement what many believe to be inappropriate programs.

Noted leaders in the field are expressing concerns and rallying early childhood educators to address this problem. Teachers are being encouraged to stand up for what they believe to be best for children and not succumb to pressures for academic skill oriented programs. In his keynote address to the 1988 annual conference of the NAEYC, David Weikart called for early childhood educators to examine their beliefs and practices in all areas of early childhood education. Dr. Weikart stated that "... the work we do is too important and the futures of the children we serve too critical ..." (Weikart, 1989, p. 29) to do things haphazardly and without reason. He went on to say that we need to understand what and why we implement the programs we do. Only then can we defend our practices and stand up for the appropriate and correct curriculum in our programs and practices, becoming advocates for the children we serve (Weikart, 1989).

In a 1988 article, Lilian Katz (past president of NAEYC) also called for early childhood educators to examine their current practices and check for alignment with philosophical beliefs. Dr. Katz suggested that often teachers do things because they've always done them that way and never stopped to think if they were truly developmentally appropriate.

On September 26, 1991, an early childhood symposium was sponsored by the Early Childhood Project at Montana State, Montana Association for the Education of Young Children, Montana Board of Public Education, Montana Office of Public Instruction, MSU Chapter of Phi Delta Kappa, and Child Care Connections of Bozeman for the purpose of exploring current topics of interest and concerns of the early childhood community in Montana. Representatives from the sponsoring groups, the Governor's Child Care Advisory Committee, public and private teachers and administrators from preschools, elementary levels, and higher education were present and participated in the discussions. The symposium participants recognized the need for quality early childhood programs in Montana and expressed concerns about the types of curricula found in Montana kindergarten classrooms.

Participants expressed concerns over the growing number of readiness or transition programs and questioned the reason behind the need for these programs.

Participants proposed conducting a study to ascertain the nature of kindergarten programs in Montana and whether increased developmental training for teachers might have an effect on practices implemented in classrooms.

In the spring of 1992, the Early Childhood Project at Montana State University was awarded a grant by the W. K. Kellogg Foundation to support and guide communities in Montana in the development of collaborative strategies to provide services to children ages three to eight and their families. One of the goals of the project is directly related to the need for a review of early childhood programs available in the state, "To improve the quality of early childhood services

provided across all settings including private child care programs, Head Start, public schools, and other programs providing early childhood services by impacting professional preparation programs through leadership development and professional associations" (Montana Early Childhood Collaboration Project grant proposal, 1991, p. 9).

The Montana Office of Public Instruction released a report in the spring of 1993 entitled Education for a New Century (Office of Public Instruction, 1993). The report outlines some of the major challenges facing education and lists some of the strategies now being considered in Montana. Early childhood developmental principles are supported by such ideas as the establishment of non-graded K-3 classes, developing family resource centers at schools, schools becoming learning centers for entire communities, adjusting teaching styles to the learning styles and needs of individual children, and giving attention to all areas of children's development (pp. 4-9). The report then goes on to examine areas which need to be updated so that Montana's schools will be ready for the future. One area which the report suggests is always undergoing change and will continue to need to undergo change is training and education for teachers and administrators. OPI suggests that teachers need to be ready to face new demands "for meeting physical, emotional, and social needs of children," not just be concerned with the cognitive aspects of their development (p. 16). OPI is currently reviewing the standards set for teacher education programs in the state and making changes. They are considering adding or changing several of the current standards to rely heavily on more intensive child

development training and knowledge of developmentally appropriate practices for the primary grades. OPI is questioning the chances of success in initiating the change process to more developmentally appropriate practices without intensive training for teachers and administrators and more information about what is actually occurring in programs around the state (personal communications with J. Atkins, N. Coopersmith, and J. Cobb, OPI, Fall 1992).

From these sources I am led to suspect that there is no clear picture of what is happening in Montana kindergartens. This study is being proposed to answer the need for additional information concerning the programs and practices found in Montana kindergartens and the philosophical beliefs of personnel teaching kindergarten in Montana. This information could assist those involved with establishing policies and recommending changes for education programs in the state by providing them with information which will allow them to make more informed decisions.

Definition of Terms

For the purpose of this study, the following definitions will be utilized:

- (1) Early Childhood: The period of time from birth through age eight. Children in this age group learn in a qualitatively different way than older children and adults. Children have special needs which can only be fully met in an environment that provides for their development in four areas: (1) physical, (2) social, (3) emotional, and (4) cognitive (Bredekamp, 1987).

- (2) **Early Childhood Educators:** Teachers who work with children birth to age eight or educators working with the teachers of children birth to age eight. Training and education for early childhood educators usually centers around child development and constructivist theories (Bredekamp, 1987).
- (3) **Developmentally Appropriate Education:** Educational activities and environments based on the developmental level and age of the children involved. The National Association for the Education of Young Children proposes that children's learning progresses through four stages:
(1) awareness, (2) exploration, (3) inquiry, and (4) utilization. Teachers of young children create an environment which encourages children to become actively engaged in the learning process, to have the freedom and security to take risk, and to take responsibility for their learning. Many and varied materials and teaching strategies are employed to meet the unique needs of individual children including developmental level, learning style, and cultural background (Bredekamp, 1987; Fenton & Osborne, 1992).
- (4) **Child-Centered Instruction:** In a child-centered classroom the teacher prepares the environment and guides children's discoveries and exploration. Children are actively involved in activities, making choices about their learning, and constructing knowledge for themselves. Teachers encourage self-directed problem solving and experimentation (Bredekamp, 1987).
- (5) **Teacher-Directed Instruction:** The teacher initiates and sets criteria for activities, directing all activities and deciding what children will do and when.

The lessons are highly structured and controlled by the teacher. Children are given few choices. The teacher dominates the environment, by providing instructions, defining acceptable levels of involvement and serving as the major source of knowledge (Bredekamp, 1987).

- (6) Kindergarten: The early childhood program available to five year olds prior to entrance in first grade. The word kindergarten was coined by Friedrich Froebel in the 1800's. This name was adopted to emphasize the difference between Froebel's concept of appropriate education for young children and the traditional classrooms of his day. When kindergartens were first introduced to America, they followed the teachings of Froebel very closely (Essa, 1992). Today kindergarten is an integral part of the majority of the public school systems in the United States, although not mandatory in Montana. The two major national early childhood education organizations (ACEI & NAEYC) still promote the original concept of kindergarten and its emphasis on play as the primary tool for learning (Bredekamp, 1987; Moyer et al., 1987).

Questions to be Answered

This study will seek answers to the following questions:

- (1) What are the philosophical beliefs of certified teachers currently teaching kindergarten in Montana concerning kindergarten curriculum?
- (2) What are the current curriculum practices being implemented in Montana kindergartens?

- (3) What is the relationship between the philosophical beliefs of certified teachers currently teaching kindergarten in Montana and the practices implemented in their classroom?
- (4) What do certified teachers currently teaching kindergarten in Montana perceive as the major forces influencing curriculum decisions in their kindergarten programs?
- (5) Is there any correlation between perceived empowerment of certified teachers currently teaching kindergarten in Montana and the degree of developmental appropriateness of their philosophical beliefs?
- (6) Is there any correlation between perceived empowerment of certified teachers currently teaching kindergarten in Montana and the degree of developmental appropriateness of the practices implemented in their classroom?
- (7) Is there a relationship between teachers' philosophical beliefs and any of the following variables: years of teaching experience, years teaching kindergarten, years at current school, chose/assigned to teach kindergarten, highest degree earned, where degree was earned, specific training in early childhood education, membership in professional organizations, size of district?
- (8) Is there a relationship between practices implemented in the classroom by the teacher and any of the following variables: years of experience, years teaching kindergarten, years at current school, chose/assigned to teach kindergarten, highest degree earned, where degree was earned, specific training in early childhood education, membership in professional organizations, size of district?

Review of Literature

The literature supporting this study falls into three categories: (1) a historical overview of the evolution of kindergarten, (2) current trends in kindergarten curricula, and (3) previous research concerning teachers' beliefs and practices.

History of Kindergarten

In order to understand the problem confronting kindergarten teachers in today's society, it is important to look at the evolutionary process of the kindergarten movement. The philosophical beliefs endorsed by the national organizations are better appreciated and comprehended in historical context. Viewing the evolution of kindergarten will also aid the reader in identification of the reasons for the introduction of alternative philosophies and practices.

European Roots

The first recorded mention of education for young children occurred in 1658, when Johann Comenius created the first known picture book for children entitled Orbus Pictus. Comenius is also credited with writing two parent education books, School of Infancy and The Great Didactic in which he advocated "mother schools" to train parents in the art of parenting. His books were based on the belief that children needed training through firsthand experiences in their early years and this

training was best achieved in the home through interactions with the mother (Hinitz, 1988; Osborn, 1991; Woodill, 1988; Wortham, 1992).

Jean Jacques Rousseau reiterated the beliefs expressed by Comenius concerning the need for hands on, experiential learning for children. Rousseau believed that direct instruction of young children was not appropriate and that education for children under twelve should be based on physical manipulations of objects and sensory perceptions. In the book Emile Rousseau described the characteristics of children of varying ages and outlined what he considered to be appropriate education for each age based on his concepts of child development (Hinitz, 1988; Osborn, 1991; Weber, 1984; Woodill, 1988).

In the late 1770's, Jean Frederic Oberlin started the first day care in France and Heinrich Pestalozzi opened a school for poor children in Switzerland. These men set forth the concept of schools "caring" for the young child's health and safety, as well as education (Woodill, 1988). This was the first time that schools for young children had been established as a response to the needs of a community (Hill, 1942/1992). Pestalozzi is often considered the "father of modern education" (Hinitz, 1988) and was considered a leading innovator in the education of young children during his lifetime. He developed many teaching aids and object lessons for use with young children and wrote the book How Gertrude Teaches Her Children. Pestalozzi believed exercise, play and object lessons were the foundations of learning for young children (Hewes, 1992; Hinitz, 1988; Osborn, 1991; Woodill, 1988; Wortham, 1992).

As many areas began to move from an agrarian society to an industrial one, many new problems emerged. With both parents and often older brothers and sisters working in the factories, young children were often left to fend for themselves during the day. Robert Owen, a factory owner, established the first recorded factory day nursery in Scotland as an answer to the need for child care. He felt a sense of responsibility to the community to provide a healthy and safe environment for the children of his workers (Hill, 1942/1992; Osborn, 1991). In these nursery schools, Owen emphasized dance, song, and outdoor play. He felt that corporal punishment, intimidation, and fear should not be used in training children. He was considered a pioneer in humane treatment of children (Hinitz, 1988; Woodill, 1988).

Friedrich Froebel, a student of Pestalozzi, started the first kindergartens in Germany in 1837. Froebel named his schools kindergarten (meaning "garden of children" in German) because he felt that given the right environment and encouragement children would develop or "flower." He is considered the "Father of Kindergarten" (Hewes, 1985; Shapiro, 1983). Froebel was one of the first to view play as an essential component of kindergarten. He was the first to use blocks in the classroom and wrote the book Mother Plays and Nursery Songs which contains many fingerplays and songs still used in kindergarten classrooms around the world (Hinitz, 1988; Osborn, 1991; Ransbury, 1982; Shapiro, 1983; Spodek, 1982).

Kindergarten Begins in America

Margaretha Schurz, a Germany immigrant who had worked with Froebel, opened the first American kindergarten in Watertown, Wisconsin, in 1855, to serve her children and those of her neighbors. This first kindergarten was taught in German (the language of the children who attended and the teacher) and was Froebelian in concept. The first English speaking kindergarten in America was started in Boston in 1860 by Elizabeth Peabody and her sister, Mary Mann (Mrs. Horace Mann), after studying under Schurz. Kindertartens were established across the United States as a part of the child rescue mission to save "slum" children. These first Froebelian kindertartens were concerned with the health, safety and education of the child (Hinitz, 1988; Lawler & Bauch, 1988; Woodill, 1988).

The first U. S. Commissioner of Education, Henry Barnard, recommended that kindertartens be a part of the public schools in the late 1850's. He stated in a government report that kindergarten was "by far the most original, attractive, and philosophical form of infant development the world has yet seen" (cited in Weber, 1984, p. 43). However, the first kindergarten to be considered a part of the public school system did not began until 1873 in St. Louis, Missouri, under the direction of Susan Blow (Hewes, 1987; Osborn, 1991).

The Child Study and Progressive Movements Bring Dissension

Around the turn of the century, early childhood education began to look at the scientific child study movement for direction. Up until this time, practices in

early childhood education were based on philosophical beliefs and assumptions of the educators designing the programs and curriculums (Weber, 1984; Woodill, 1988). G. Stanley Hall introduced the study of child development to early childhood education in the early 1900's. Hall made recommendations for changes in curriculum practices based on his research with children. One of the most influential recommendations was the need for large muscle development to take place before fine motor development, which demonstrated that Froebel's small gifts (blocks) and occupations (sewing) were inappropriate for use with young children. Hall reinforced the Froebelian concept that the child dictates the curriculum (Osborn, 1991; Weber, 1984). He also suggested that kindergarten teachers needed to understand how language develops and the growth rate and development of children to be effective teachers. He agreed with the Froebelian concepts surrounding the importance of spontaneous play for young children and felt that kindergarten teachers needed to understand the vital role of play and imagination in the young child's education. Hall convinced kindergarten educators that knowledge of how children learn and develop and the application of that knowledge in developing a curriculum were the only way to an effective program (Shapiro, 1983; Weber, 1984).

Hall became president of Clark University in 1888 and established a child study center. Early childhood educators were drawn to Hall's work. Kindergarten leaders such as Patty Smith Hill and Jenny Merrill attended Clark University summer conferences

... searching for more fundamental knowledge about the child on which to base a new kindergarten program. Child study seemed a realization of their hope that they could base education on the nature of the child as Froebel had recommended, only now it would rest not upon an intuitive recognition but upon scientific observation. Hall, himself, believed that Froebel would have rejoiced in the development of a child study movement. (Weber, 1984, p. 49)

In 1893, Patty Smith Hill conducted a kindergarten class as part of an exhibition at the Chicago World's Fair. Hill's kindergarten was an adaptation of Froebel's concepts, not a strict adherence to his ideas as promoted by Peabody. Hill changed some of the Froebelian materials, added free play, and maintained a flexible schedule. Hill created the large building blocks often seen in kindergarten classrooms and composed the song "Happy Birthday." She was also instrumental in the foundation of the National Association for Nursery Education in 1929, now the National Association for the Education of Young Children (Hinitz, 1988; Osborn, 1991; Shapiro, 1983; Woodill, 1988). Hill, along with John Dewey, promoted what became known as the progressive movement which promoted free play, child centered discovery learning, and flexible schedules (Hinitz, 1988; Osborn, 1991; Woodill, 1988).

Dewey was influential in the introduction of the sand and water table, the home living center, and clay into kindergarten classrooms (Weber, 1984; Wortham, 1992). Dewey felt that the process of learning was more important than the product achieved and that individuals learn by a process of inquiry. Dewey also reinforced the Froebelian emphasis on free play as an important learning tool for young children (Senn, 1975). Dewey and Hill were convinced that schools should reflect

the democratic beliefs of their society, promoting freedom, choice, and responsibility for learning (Weber, 1984). One of the major contributions of Dewey and the progressive movement to education at all levels grew out of his research at his lab school in Chicago. Dewey reported that students learned more and put forth more effort when the activity or assignment was interesting and relevant to their lives. Up until this time, it was believed that lessons should be "distasteful" to the students requiring them to "discipline" their minds to complete the task (Taylor, 1986/87).

The Introduction of the Concept of Maturation

Arnold Gesell was also a student of G. Stanley Hall's. Gesell used many innovative research techniques in his scientific study of children. By studying and recording the characteristics of children at various ages, he developed "norms" of behavior and growth for each age group. Gesell called this process of innate growth "maturation." Although Gesell believed that environment played a role in development and that individuals developed in their own way, he felt that the primary determinant was maturation or the internal "biological clock" of the organism (Osborn, 1991; Weber, 1984). Gesell stated that norms or growth gradients served two distinct purposes: "(1) they define the developmental traits characteristic of childhood in general and (2) they enable us to determine in an individual child the attained levels of maturity for these traits" (Gesell & Ilg, 1946, p. 23). Gesell believed that incorrectly assessing children's developmental level and

attempting to teach children before they are ready for the material being presented is a waste of effort and can in fact interfere with normal development. Thus, the concept of readiness to learn was born (Gesell & Ilg, 1946; Semm, 1975; Weber, 1984).

Gesell's concept of maturation had a profound influence on kindergarten curriculum in the 30's, 40's, and 50's. His conceptualization of children's similarities to plants was an analogy with which kindergarten teachers were already familiar and was therefore easily assimilated into the conceptual framework of kindergarten. Teacher education textbooks were filled with references to characteristics of children at varying ages and the implications this carried for curriculum development (Weber, 1984). The intellections of school readiness, which greatly influenced kindergarten policies in the 70's and 80's, were direct descendants of Gesell's concept of maturation. Only recently have Gesell's ideas and research studies come under attack. The children used in his studies were not a true representation of American society and the norms derived from these studies should not have been generalized to the general public. In Gesell's defense it should be noted that he never intended for the norms to be used as absolutes or to deny individual differences (Weber, 1984). Although Gesell's concepts of maturation and readiness have been questioned, many of the infant tests used today are based on Gesell's developmental schedules or norms (Steinberg & Belsky, 1991).

Gesell believed that genetic predeterminations were the primary antecedents for development, but he did recognize that environment played an

important role in the maturation of children. G. Stanley Hall, Gesell's mentor, began to question the long held belief that intelligence was fixed for he felt that the environment played an important role in children's development. The research of J. McVicker Hunt provided evidence that intelligence was indeed influenced by the environment. Building on this idea, Benjamin Bloom and Arthur Combs wrote about educational practices and the effect schools could have on children. The evidence that environment could influence intelligence led to exploration of behavioral learning theories (Weber, 1984).

The Influence of Behaviorism Begins

Although considered a part of the progressive movement, in retrospect, Edward Thorndike was the forerunner of behaviorism. Thorndike sought to further the concept of education principles based on scientific study and developed objective measures with which to record data observed. He wanted to develop a science of education which would explain all learning. It was Thorndike that introduced the idea of standardized testing into the education field. Much of Thorndike's research was conducted with the use of animals, but he believed that humans learned in much the same way as animals. Thus he developed his principles of learning on his observations of animals and inferred his finding to humans (Taylor, 1986/87; Weber, 1984; Wortham, 1992).

Thorndike proposed that intellectual growth resulted from the formation of "mental habits" and suggested that "if young children were taught proper habits early

enough, they would develop intellectually" (Spodek, 1973, p. 193). Patty Smith Hill, in her continuing efforts to incorporate scientific research into the kindergarten curriculum, developed Conduct Curriculum at the Teachers' College kindergarten based on the principles of habit training. Although the concept of habit training was soon abandoned due to a lack of evidence of its impact on later development, some aspects of Thorndike's influence did remain. The use of a checklist of skills for charting individual children's progress and the use of behavior modification techniques in discipline are still found in most kindergarten classrooms today (Spodek, 1973; Weber, 1984).

Although kindergarten leaders had moved away from the basic premise upon which behaviorism is based, the work of Pavlov, Watson, and Skinner continued to "reinforce" the usefulness of the behavioristic principles in education. David Elkind, in an interview with Milton Senn, proposed that the views of behaviorism fit the mood in America after World War I causing it to flourish. At this time, America was turning away from its infatuation with European ideas and striving to foster the belief in the pioneering spirit, self-reliance, and the "American Dream." Behaviorism embodied these ideas and perpetuated the American concept that "anyone can do anything if they work hard enough" (Senn, 1975, p. 26).

The basic concepts of behaviorism appeared to reinforce the use of recitation and drill which was a major part of the elementary school curriculum at that time. Later, as Skinner introduced the idea of behavioral engineering into the education field, and the elementary curriculum began to translate this concept into

practices in the classroom, the discrepancies between the kindergarten and elementary philosophies grew. This would later become a major debate between early childhood and elementary educators (Weber, 1984).

The Impact of the Psychoanalytical Movement

The psychoanalytical movement, based on the work of Sigmund Freud, brought about an awareness of the importance of the early years of children's lives on their future development. Freud's psychoanalytical movement also emphasized the importance of the child's social-emotional well being on learning. Freud was the first to stress the importance of the early years and to make suggestions based on theories of development (Essa, 1992; Osborn, 1991; Spodek, 1973; Woodill, 1988). "When translated into school programs, this awareness meant the development of educational experiences to prevent emotional conflicts that could lead to neurotic complexes and the inclusion of expressive activities that would provide the catharsis necessary for mental health" (Spodek, 1973, p. 194). The methods employed in early education in the 1930's and 40's were heavily influenced by psychoanalytical theory. Play, a vital component in kindergarten programs, now was viewed as not only a learning tool, but a way to provide catharsis for the emotional needs of the child (Essa, 1992; Spodek, 1973; Woodill, 1988).

Neo-Freudians, such as Lawrence Frank, modified and built upon Freud's theories in the development of philosophical concepts of the importance of affective development in children. Dropping the emphasis on biological aspects of

personality development, Neo-Freudians used Freud's basic ideas to examine the cultural impact on this development (Wortham, 1992).

Lawrence Frank, who began his career as an economist, first became interested in the study of children through his association with Lucy Sprague Mitchell (the wife of his colleague Wesley Mitchell). Lucy Sprague Mitchell established the Bureau of Educational Experiments in the 1920's which later became the Bank Street College of Education (Osborn, 1991; Senn, 1975; Weber, 1984; Wortham, 1992). Frank developed an interest in the work of the bureau and recognized the need for a "systematic and intensive study of child growth and development" (Weber, 1984, p. 121). Frank proposed that teachers must understand the causes of individual children's behavior and respond according to their individual needs. He believed that teachers could not rely on one uniform way of preventing unwanted behavior as proposed by behaviorism, but must adjust to the unique needs of each child (Senn, 1975; Weber, 1984; Wortham, 1992).

Erik Erikson was also influential in the psychoanalytical movement. Erikson became interested in psychoanalytical training and worked with Anna Freud in Vienna. Erikson moved to the United States when Hitler came to power in Europe. Working with anthropologists in the United States gave Erikson the opportunity to observe cultural influences in child rearing. Incorporating the work of Freud and his own research on cultural influences, Erikson developed what is known today as psychosocial theory. The work of Freud, Frank, and Erikson was instrumental in the development of the holistic view of education held by early childhood educators

today. Kindergarten now added another purpose, the development of a positive self-image and concern for the affective development of children (Spodek, 1973; Weber, 1984; Wortham, 1992).

The Influence of Cognitive Developmental Theory

The cognitive growth movement traces its roots to the work of Jean Itard and Edward Seguin with retarded children in the early 1800's. Marie Montessori based her work with the mentally retarded children in Rome on the premises established by Itard and Seguin. She later adapted her methods for use with slum children in Italy and reported that although these children had comparatively low IQ's, she could teach them to read as quickly as middle-class children. Montessori is credited with the creation of tactile alphabet letters and many self-correcting sensory materials. However, the belief that intelligence was inherited and not influenced by environment kept Montessori's concepts from being widely recognized or accepted in the United States until the 1950's and 60's (LaFrancois, 1973; Osborn, 1991; Woodill, 1988).

Binet, who developed the first intelligence test, believed that intelligence was inherited, but he began to find proof that environmental factors also played an important role in mental abilities (Osborn, 1991; Woodill, 1988). Jean Piaget, an assistant of Binet's, became very interested in how children constructed knowledge. While testing children to help develop the norms for the intelligence test, Piaget became interested in why children of similar ages made the same types of

"mistakes." As he investigated this phenomenon, he began to develop his theory of cognitive development (Berger, 1991; Woodill, 1988).

Piaget offered early childhood educators proof that children learn quantitatively different from adults. He created ways to test for understanding of the concepts he presented and introduced the concept of cognitive stages. Piaget's concepts began to take root in American education in the early 1960's. Although Piaget never applied his concepts to educational practice, many educators (such as Barry Wadsworth and Constance Kamii) and psychologists (such as David Elkind) began to develop guides to aid teachers in using his theories in their classrooms to plan instruction and to evaluate children's thinking abilities. Teachers began to view children in a totally different light (Berger, 1990; Wadsworth, 1989).

Summary

Although many Froebelian ideas and materials have been changed and updated, the basic philosophy of stimulating and nurturing children's development has continued as the major focus of American kindergarten for over a century. The work of G. Stanley Hall and John Dewey reinforced the fundamental principles upon which early kindergarten programs were based and led the way for the development of more updated teaching methods and materials based on the research of the child study movement. Today, child development research and the constructionist theory of learning proposed by Piaget have led to the development of guidelines for a kindergarten curriculum which nurtures young children's natural

curiosity and eagerness to learn about their environment (e.g., Bredekamp, 1987; Day & Drake, 1986; Moyer et al., 1987; Shapiro & Biber, 1972; Spodek, 1988a).

Kindergarten has undergone many changes since its conception. It almost died out completely as a component of the public schools in the late 40's and early 50's due to cuts in public school budgets, but was revived in the 60's when education was again looked to as the salvation for the problems of society (Wortham, 1992). Becoming a part of the public schools has not been without problems. Although kindergarten has influenced primary education in America, kindergarten has also been changed in the process. Today, many kindergarten programs have lost their Froebelian, child-centered nature and have developed a strong academic focus. Kindergarten is often viewed as a "prep school" for first grade (Spodek, 1982). The purpose of kindergarten must be changed again if it is to once more continue in the nurturing tradition of the "children's garden."

Current Kindergarten Practices

As the exploration of the history has pointed out, there are two major theoretical orientations found in kindergarten programs in the United States today operating from two significantly different philosophical beliefs about how children learn and what they should be learning. These two views offer very different reasons and objectives for education (Fromberg, 1989).

The Developmental Approach

The child-centered, developmental approach is based on child development theories, predominately those of Jean Piaget. This approach is centered around the basic premise that young children perceive and process information differently than adults. Developmental or child-centered programs strive to adapt the program to the needs of the child. The emphasis is on the learner and the process of learning (Day, 1988; Fromberg, 1989; Moyer et al., 1987).

The Academic Approach

The academic/formal programs are based on behavioristic learning theories as proposed by B. F. Skinner. The basic premise is that all people learn in the same way, regardless of age. Academic programs have a body of knowledge they feel every child of a certain age should master. This body of knowledge is broken down into its smallest components which are then taught to the learner in a particular sequence. The emphasis is on the teaching of specific skills to the child (Day, 1988; Fromberg, 1989; Moyer et al., 1987).

Comparison of the Two Approaches

Early studies comparing preschool programs for low socioeconomic children found no discernible difference in academic achievement between the kinds of approaches used, only between control groups (having no preschool experience) and the groups participating in the programs (Weikart, Epstein, Schweinhart, & Bond, 1978). However, longitudinal studies have found that although academic

achievement of participants is similar, there are differences in pro-social dimensions between types of programs (Karnes, Schwedel, & Williams, 1983; Miller & Bizzell, 1983, 1984; Schweinhart, Weikart, & Larner, 1986a). Schweinhart, Weikart, and Larner (1986a) found that children in developmental (child-centered) programs reported fewer incidents of juvenile delinquency, more sports participation, and held more school offices than children in the direct-instruction programs. There have been criticisms of this study calling into question several methodological and interpretive aspects (Bereiter, 1986; Gersten, 1986); however, the researchers admitted at the beginning that the sample size was small and never generalized their finding to the general public. They merely pointed out that these findings indicated a need for more inquiry (Schweinhart, Weikart, & Larner, 1986b).

The Karnes et al. (1983) study comparing five preschool curriculum models found slight differences in academic achievement, favoring the direct instructional program. In addition, this study found that the groups from child-centered approaches had a higher rate of high school graduation than the direct instruction groups. Another preschool study conducted by Miller and Bizzell (1984) found no significant difference between curriculum groups through tenth grade.

A study conducted by Stallings (1975) in connection with project Follow Through (a program for primary children connected with Head Start) compared varying approaches used with primary children. This program was also directed at low socioeconomic children. Stallings found that children involved in the direct instruction program scored higher in math and reading, and children in

child-initiated programs scored higher on problem solving and reasoning tasks. The child-initiated group also had lower rates of school absenteeism. Stallings concluded that each program reached its objective. The direct instructional program sought to increase academic achievement scores. The child-initiated programs sought to enhance overall development of the child. Thus, the choice between the two approaches depends on the objectives and philosophy of the program.

There is not an abundance of research comparing these two very different approaches with kindergarten children, and what is available is not conclusive enough to establish a firm, undisputed policy (Schweinhart & Weikart, 1988). However, there is research that evaluates particular aspects of developmental, child-initiated learning and makes comparisons with techniques usually associated with direct instruction.

Research concerning stress in kindergarten children. In two recent studies conducted by Burts and associates (1990, 1992) children in classrooms identified as developmentally inappropriate exhibited significantly more stress behaviors than children in developmentally appropriate classrooms. Research conducted by Fimian and Cross (1986) with preadolescents found a significant relationship between classroom stress and student burn out, but what implications this may have for young children's development remains uncertain. In addition, Rutter (1979) has

found that positive school experiences can negate the effects of other environmental stressors in the lives of young children.

Research concerning the disposition to learn. It has been argued by leading early childhood educators that the primary grades should be devoted to helping children develop the attitude or "disposition to learn" (Bredekamp, 1987; Connell, 1987; Council of Chief State School Officers, 1988; Elkind, 1989; Gallagher & Coché, 1987; Greenberg, 1990; Kamii, 1985; Katz, 1988). Spodek (1986) suggested that children should be encouraged to question and explore their environment and look at school as a place of discovery, thus developing lifelong learners. Studies conducted by McGillicuddy-DeLisi and Sigel (1982a; 1982b; Sigel, 1985; Sigel & McGillicuddy-DeLisi, 1984) cited in Sigel, 1987, p. 222, found a negative relationship between intellectual functioning and didactic, structured teaching strategies. Deci, Nezlek, and Sheinman (1981) found that children in developmentally appropriate classrooms had a higher level of intrinsic motivation and higher levels of self-esteem than children in teacher directed, academic classrooms. In addition, Hyson, Van Trieste, and Rauch (1989) reported that children in developmentally appropriate classrooms had more positive attitudes about school and learning in general.

Teachers' Beliefs

The general concept of what teaching really is has begun to change. The dominance of a strictly technical view of teaching is waning. A variety of alternative approaches to understanding the nature of teaching has taken its place (e.g., Doyle, 1990; Shulman, 1987). One growing area of research into the nature of teaching is that of teachers' beliefs. The importance of understanding not only what and how teachers teach but the underlying reasons for their actions and choices is critical to developing a clear concept of the nature of teaching (Kagan, 1992; Spodek, 1988b). Research has indicated that teachers' beliefs are relatively stable and resistant to change (Brousseau, Book, & Byers, 1988), are consistently reflected in their practices (e.g., Borko, Cone, Russo, & Shavelson, 1979; Clark & Yinger, 1979; Peterson, 1988; Shavelson & Stern, 1981), and that dissonance occurs when they are not (Barth, 1990; Hatch & Freeman, 1988).

Implicit Beliefs

Research conducted by Clark (1988) and Crow (1987) found that beginning teacher education students have already formed a "teacher role identity" which acts as a "filter" through which they view the information and observations they make while in teacher education programs. They found that these role identities change very little during preservice education and go on to be more fully developed and become personal theories of teaching during their first years in the field. Teachers construct their personal theories of teaching through examining the explicit theories

interwoven in professional literature and stated in workshops and college coursework and relating that to their personal experiences and teacher role identities formed by their earliest experiences with teachers. Spodek (1988b) refers to these constructs as implicit beliefs. Charlesworth and associates (1991, p. 18) defines implicit beliefs as "... the ideas about instruction that teachers develop from their personal experience based on their practical knowledge." Research has shown that what a teacher believes about teaching and how children learn is reflected in the way they deal with parents (Becker & Epstein, 1982; Galinsky, 1988), the organization (Elbaz, 1981), and the environmental atmosphere of the classroom (Harvey, Prather, White, Alter, & Hoffmeister, 1966; Katz and Chard, 1989), the approach used to evaluate and grade children (Terwilliger, 1977), and the way teachers adapt and implement the officially adopted curricula (Brophy, 1982). It is thus easy to understand the critical need for a better understanding of teachers' implicit beliefs.

In an exploratory study of preschool, kindergarten, and first grade teachers' implicit theories, Spodek (1988b) found a diverse mixture of beliefs. Differences in teacher training and in program goals were suggested as possible reasons for this outcome. Verma and Peters (1975), in a study of preschool teachers' beliefs, found that when the program had a well defined theoretical orientation, teacher's beliefs were consistent with their practices and with the explicitly stated theory of the program. Wing (1989) found that preschool teachers with strongly stated beliefs

were able to influence the beliefs of the children in their classrooms to coincide with the teachers' views.

In an 1988 investigation of kindergarten teachers' beliefs about readiness and retention, Smith and Shepard found that teachers' beliefs concerning how children learn influenced their beliefs concerning retention. Schools with high rates of retehtion were found to have a strong bureaucratic structure and highly academic emphasis in curricula. Smith and Shepard also found that schools with low retention rates were less bureaucratic in structure and more developmental in curricula emphasis.

Dissonance Creates Conflicts

Hatch and Freeman (1988) found that kindergarten teachers' beliefs and practices were often not congruent. They found that most Ohio kindergarten programs were academic in focus. However, the majority of the kindergarten teachers' beliefs were congruent with development theory. They also found that many kindergarten teachers in Ohio were experiencing "philosophy-reality conflicts" due to the dissonance between beliefs and practices. These conflicts are believed to contribute to teacher burn out and an overall dissatisfaction with the teaching profession.

Hitz and Wright (1988) found that Oregon kindergarten programs were becoming increasingly academic and that kindergarten teachers' beliefs were not congruent with this shift. Kindergarten teachers reported a perceived increase in

pressure by parents and principals to provide a more academic kindergarten program.

Charlesworth and associates (Charlesworth, Hart, Burts, & Hernandez, 1991; Charlesworth, Hart, Burts, Thomasson, Mosley, & Fleege, 1993) in two separate studies found an increase in academic emphasis in kindergarten programs in the south. They also found that kindergarten teachers' beliefs were often reflected in their practices. Teachers with strongly held beliefs in developmentally appropriate practices implemented practices which were more developmentally appropriate. Teachers with strongly held beliefs in academic practices implemented programs which were more developmentally inappropriate. However, they found that kindergarten teachers in general expressed beliefs which were congruent with developmentally appropriate beliefs that were reflected in their practices. These studies also found that teachers who implemented more developmentally appropriate programs felt they had more control over curriculum decisions than teachers who implemented more developmentally inappropriate programs.

Summary

Previous research has shown that kindergarten programs across the United States are becoming increasingly academic and that kindergarten teachers do not necessarily agree with these changes. Some evidence has also been found to demonstrate problems may occur when teachers' beliefs and practices are not harmonious. It would be useful to know if (1) Montana kindergarten programs are

following the national trends toward more academic focus, (2) if teachers of kindergarten in Montana philosophically support this trend, (3) what variables influence teachers' beliefs, and (4) what variables teachers of kindergartens in Montana perceive as having the greatest influence on their curriculum decisions. This information could potentially impact decisions now under consideration by the Office of Public Instruction, The Certification Standards and Practices Advisory Council, and Teacher Education Programs in the state.

CHAPTER 2

METHODOLOGY

Introduction

The purpose of this study was to identify the degree of developmental appropriateness of the self-reported philosophical beliefs and classroom practices of certified elementary teachers currently teaching kindergarten in the state of Montana. Congruence between identified philosophical beliefs and classroom practices was also determined. This study determined relationships among selected demographics and the philosophical beliefs and classroom practices of the teachers. In addition, the relationship between teachers' beliefs and practices and forces perceived by the teachers as exerting influence over their classroom practices was determined.

Conceptual Framework

A review of the literature relevant to this study indicates that what teachers believe about how children learn and about the purpose of education are important constructs to consider when examining practices in the classroom (Kagan, 1992; Spodek, 1988b). Teachers employing the same classroom practices may do so for

very different reasons. The identification of outside influences and the implicit theories of teachers provide some understanding of the actions of the teacher. Implicit theories are the beliefs derived from an examination of the explicit theories stated in coursework and professional literature as they relate to personal experiences of the individual (Spodek, 1988b). Teachers construct their own personal theories of teaching as they merge explicit theories with their personal experiences (Charlesworth et al., 1991). The intent of this study was to identify teachers' implicit theories as defined by their philosophical beliefs concerning kindergarten and how these theories are translated into actual practice in the classroom. This study also determined if there was congruence between teachers' beliefs and practices and sought to ascertain the reasons for noncongruence.

Population Description and Sampling Procedures

The population for this study consisted of all certified professionals currently teaching kindergarten in Montana public schools, in a full- or half-time capacity, for the 1993-94 school year. From this population a random sample of subjects was drawn from the lists provided by the Office of Public Instruction (OPI). Previous research of this type has not indicated a need for a more sophisticated sampling technique.

Prior use of mail questionnaires using instruments of comparable content and length have had response rates ranging from 69% (Hitz & Wright, 1988) to 93% (Charlesworth et al., 1991, 1993). A minimum response rate of 70% was sought to

provide validity of study conclusions (Gay, 1987; Babbie, 1986). In an effort to maximize response rate, a variation of the four-tier mailing approach as developed by Dillman (1978) was utilized.

Employing conservative parameters to guard against both Type I and Type II errors was appropriate in an exploratory study such as this. By setting alpha at .05 and beta at .95 a minimum sample size of 196 was required (Krejcie & Morgan, 1970). Several factors influenced this decision. One consideration is the consequence of making a Type I versus making a Type II error. A Type I error could result in a needless expenditure of money, effort, and time to eliminate barriers which actually have no significant influence on philosophical beliefs and practices implemented in the classroom. A Type II error could result in children not getting the appropriate and best education because their teachers were not receiving adequate support and resources. The choice of significance level was based in part on the rationale that the consequences of committing a Type II error are of equal concern as those of committing a Type I error. Other factors influencing this decision are the exploratory nature of the research and the absence of a strong theoretical base for hypotheses about curriculum development in kindergarten programs, both of which suggest a bias to avoid Type II errors. Similarly, this concern over Type II errors thus suggests increasing statistical power and using a beta of .95.

Investigative Categories

Categories of investigation in this study were: (1) teachers' self-reported philosophical beliefs, (2) teachers' self-reported practices, (3) demographic data about the participants, and (4) teachers' perceptions of factors influencing their practices in the classroom. This study descriptively analyzed each of these categories. The study assessed congruence between teachers' self-reported philosophical beliefs and actual practices. Finally, the study identified possible influences (e.g., demographics) on beliefs and practices.

Methods of Data Collection

Descriptive data were collected in four areas: (1) demographic information, (2) teachers' reported philosophical beliefs, (3) teachers' reported practices, and (4) factors perceived to influence curriculum decisions. This information was secured through the use of a survey instrument which was distributed through the mail. In an effort to obtain the highest possible return rate, a variation of the multi-tier mailing approach developed by Dillman (1978) was employed. This included (1) a letter from the State of Montana Superintendent of Education, Nancy Keenan, mailed one week in advance of the survey instrument to alert participants of the nature and importance of the instrument, (2) the initial mailing of survey instrument and cover letter, (3) a follow-up postcard sent as a reminder two weeks

after the initial mailing, and (4) mailing of a second survey instrument one month after the initial mailing to non-respondents.

The Instrument: The Teacher Questionnaire

The instrument used to survey the teachers was the Teacher Questionnaire developed by Charlesworth and associates (Charlesworth et al., 1993). This questionnaire consists of four parts: (1) demographic information (e.g., years of experience, highest degree earned), (2) ranking of factors which teachers' perceive as exerting influence over classroom practices, (3) the Teacher Beliefs Scale (TBS), and (4) the Instructional Activities Scale (IAS). The Teacher Questionnaire was based on the guidelines developed by the National Association for the Education of Young Children (NAEYC) for developmentally appropriate practices in early childhood education (Bredekamp, 1987). The Teacher Beliefs Scale consists of 36 items representing several areas of kindergarten instruction. Each item is a statement (e.g., "It is _____ for children to work silently and alone on seatwork") which the teacher rates on a five point Likert scale from extremely important to not important according to their beliefs.

The Instructional Activities Scale is composed of 34 items which describe a classroom activity (e.g., participating in dramatic play) to which the respondent rates the frequency of availability of each activity in the classroom on a five point scale from almost never (less than monthly) to very often (daily). Both scales have

subscales derived by factor analysis, with each subscale representing one facet of kindergarten instruction.

Charlesworth and associates developed this questionnaire as a means for identifying kindergarten teachers who support the guidelines developed by the NAEYC for appropriate practices in early childhood education (Bredekamp, 1987). Two studies have been conducted to establish the reliability and validity of this instrument (Charlesworth et al., 1991, 1993). The first draft of the instrument was administered to graduate and undergraduate teacher education students. Reliability of the TBS was supported through a test-retest procedure with these students. Feedback received from this administration of the total instrument was incorporated into the revised version. The instrument was then administered to 113 kindergarten teachers in a four state area. In order to control for item order effects, three versions of the instrument differing in order of presentation of statements were distributed.

As a validity check, four kindergarten classrooms identified by the IAS as being at the extremes of the continuum were then observed by four independent observers using the Checklist for Rating Developmentally Appropriate Practices in Kindergarten Classrooms to determine if teachers' perceived practices were actually being implemented in the classroom. The checklist items are drawn directly from NAEYC's guidelines for developmentally appropriate practices (Bredekamp, 1987), thus providing an observational measure comparable to the self-reported measures on the IAS. Observation of the four extreme classrooms found that teachers' actual

classroom behaviors appeared congruent with reported practices, thus supporting the validity of the self-report measures.

The questionnaire was then revised, modifying some items based on feedback received and changes made to the NAEYC guidelines and dropping items which did not load significantly on any of the factors in the first analysis. The revised version was then administered to 219 kindergarten teachers with 204 questionnaires (93%) returned. Similar methods for assessing validity and reliability were conducted; results obtained from the second study were comparable to the first. Factor analysis again yielded distinct factors with no "substantial" cross-loading for either instrument, suggesting that the subscales are distinct. Both studies found moderate levels of reliability with Cronbach's alpha scores from .56 to .84. The second study repeated the validity check of practices described above with twenty teachers and again found significant congruence between actual and reported behavior. Only one teacher was found to have differed significantly from her reported beliefs. (That teacher team-taught with another teacher in the study. The two had filled out the IAS identically. Although it was true that the children in that team situation did experience developmentally appropriate activities each day, it was due to the behaviors of the teacher whose IAS and observational checklist were congruent.)

Analysis of Data

The data gathered in this study was analyzed in two different sections. The first section is descriptive, reporting the status of the sample population (Gay, 1987). The second section is correlational, describing relationships between variables in quantitative terms (Gay, 1987).

Descriptive Analysis

The descriptive information addressed research questions 1, 2, and 4 as stated in Chapter 1. These questions are as follows:

- (1) What are the philosophical beliefs of certified teachers currently teaching kindergarten in Montana concerning kindergarten curriculum?
- (2) What are the current curriculum practices being implemented in Montana kindergartens?
- (4) What do certified teachers currently teaching kindergarten in Montana perceive as the major forces influencing curriculum decisions in their kindergarten programs?

The descriptive analysis uses appropriate tables to provide a profile of Montana kindergarten teachers surveyed on the variables measured, including demographic data, but particularly teacher beliefs and practices.

Correlational Analysis

The second section statistically analyzes hypothesized relationships among the measured variables. Like descriptive research, correlational research collects data to report the current status of the population, but it describes that status in quantitative terms identifying the degree of relationships between variables (Gay, 1987). This stage of the study addressed hypotheses derived from questions 3 and 5-8 from Chapter 1. These questions are as follows:

- (3) What is the relationship between the philosophical beliefs of certified teachers currently teaching kindergarten in Montana and the practices implemented in their classrooms?
- (5) Is there any correlation between perceived empowerment of certified teachers currently teaching kindergarten in Montana and the degree of developmental appropriateness of their philosophical beliefs?
- (6) Is there any correlation between perceived empowerment of certified teachers currently teaching kindergarten in Montana and the degree of developmental appropriateness of the practices implemented in their classroom?
- (7) Is there a relationship between teachers' philosophical beliefs and any of the following variables: years of teaching experience, years teaching kindergarten, years at current school, chose/assigned to teach kindergarten, highest degree earned, where degree was earned, specific training in early childhood education, membership in professional organizations, size of district?

- (8) Is there a relationship between practices implemented in the classroom by the teacher and any of the following variables: years of experience, years teaching kindergarten, years at current school, chose/assigned to teach kindergarten, highest degree earned, where degree was earned, specific training in early childhood education, membership in professional organizations, size of district?

Hypotheses

The hypotheses derived from these questions are as follows:

Hypothesis 1. There is no statistically significant relationship between philosophical beliefs of certified teachers currently teaching kindergarten in Montana and the practices implemented in their classrooms.

Hypothesis 2. There is no statistically significant relationship between perception of influences affecting curriculum decisions of certified teachers currently teaching kindergarten in Montana and the developmental appropriateness of their philosophical beliefs.

Hypothesis 3. There is no statistically significant relationship between perception of influences affecting curriculum decisions of certified teachers currently teaching kindergarten in Montana and the developmental appropriateness of their classroom practices.

Hypothesis 4. There is no statistically significant relationship between teachers' philosophical beliefs and the following independent variables: years of experience teaching, number of years the teacher has been teaching kindergarten,

number of years the teacher has been employed at the current school, whether the teacher was assigned or chose to teach kindergarten, highest degree earned, whether or not the teacher had specific training in early childhood education, size of the district in which the teacher is working, and membership in MAEYC.

Hypothesis 5. There is no statistically significant relationship between teachers' classroom practices and the following independent variables: teachers' philosophical beliefs, years of experience teaching, number of years the teacher has been teaching kindergarten, number of years the teacher has been employed at the current school, whether the teacher was assigned or chose to teach kindergarten, highest degree earned, where the degree was earned, whether or not the teacher had specific training in early childhood education, size of the district in which the teacher is working, and membership in professional organizations.

Hypothesis 6. Knowledge of highest degree earned, membership in MAEYC, size of district, and perceived influence of parents on curriculum decisions does not account for a significant portion of the variability in teachers' philosophical beliefs.

Hypothesis 7. Knowledge of teachers' philosophical beliefs, highest degree earned, membership in MAEYC, the number of years teaching kindergarten, size of district, and perceived influence of parents does not account for a significant portion of the variability in classroom practices.

Analytic Methods

Hypothesis 1 was tested using the Pearson Product Moment Correlation. Hypotheses 2 and 3 were tested using Spearman's rho to reflect the ordinal nature of the data. Pearson Correlations were used to assess the relationship between teachers' philosophical beliefs/classroom practices and the continuous variables in Hypotheses 4 and 5. T-tests were used to assess the relationship between teachers' philosophical beliefs and classroom practices and the dichotomous variables. These analyses identified those independent variables which were significantly associated with beliefs and with practices.

A multiple regression procedure was employed to test Hypotheses 6 and 7, using those independent variables that were significantly associated with the dependent variables. The regression analysis examined whether those variables accounted collectively for a significant portion of the variability in the dependent variables, teachers' philosophical beliefs and classroom practices.

Multiple regression identifies which variables explain the most variance, controlling for the other independent variables. Multiple regression analysis was selected because it "... is nicely suited to studying the influence of several independent variables on a dependent variable" (Kerlinger & Pedhazur, 1973, p. 4).

Delimitations and Limitations

The study relied on teachers' perceptions of influences on curriculum choices. Their perceptions may have clouded their ability to objectively report the reality of their situations. Feelings and personal interactions with individuals who influence curriculum choices may have interfered with the teachers' ability to realistically describe these influences. Similarly, despite strict confidentiality, teachers may have reported beliefs more in line with what is socially desirable than with their actual beliefs.

The choice was made to survey only kindergarten teachers, not other school personnel (e.g., principals) presumed to have significant influence on curriculum choice. Because of the exclusive focus on public school kindergartens (not including preschool or other early childhood education), findings may not generalize to other early childhood education settings (e.g., private kindergartens). Results from Montana classrooms need not generalize to other geographical areas. Similarly, any model of curriculum choice suggested by the findings may not generalize to other grade levels.

CHAPTER 3

ANALYSES OF DATA

Introduction

The problem of this study was to identify self-reported philosophical beliefs and classroom practices of certified professionals currently teaching kindergarten in Montana public schools and to determine if there was congruence between the identified philosophical beliefs and classroom practices. In addition, the study determined the relationships among the independent demographic variables and philosophical beliefs. Lastly, each participant's perception of factors influencing their classroom practices was investigated. The instrument used to survey the participants was the Teacher Questionnaire developed by Charlesworth and associates (Charlesworth et al., 1993).

Description of Sample

From the list of 430 certified personnel currently teaching kindergarten in Montana who met the criteria outlined in Chapter 2, a random sample of 230 participants was drawn. The advance letter, cover letter, and survey were sent to this sample of participants. A total of 197 respondents from the original 230

teachers contacted participated in the study, for a response rate of 86%. Four surveys were returned from teachers no longer teaching kindergarten and were not included in this study. This response rate exceeded the minimum acceptable percentage set forth in Chapter 2. In analyzing the pattern of response, it was found that 90% of the 197 participants responded in the initial mailout of the instrument (including the reminder postcard), while 10% responded in the second round mailout.

The Survey Instruments

The Teacher Beliefs Scale (TBS) has a possible range of scores from 36 to 180 points with a midpoint of 108 points. Any scores higher than 108 would be more developmentally appropriate than inappropriate. The mean and median score for developmental appropriateness of philosophical beliefs among the teachers surveyed was 147, suggesting that the average respondent reported beliefs on the developmentally appropriate side of the scale. In prior administrations of this instrument by its creators, a mean score for beliefs or practices was not calculated. Their interest was in creating a valid and reliable instrument, not in establishing means.

The Instructional Activities Scale (IAS) which measures reported classroom practices has a possible range of scores from 34 to 170 points with a midpoint of 102 points. The mean and median score for developmental appropriateness of classroom practices reported by the teachers surveyed was 122, suggesting that the

average respondent reported classroom practices on the developmentally appropriate side of the scale.

Reliability for belief and practice measures used in the survey was established through the calculation of Cronbach's alpha for each instrument. A Cronbach's alpha of .88 was found for the Teacher Beliefs Scale and .81 was found for the Instructional Activities Scale. These alpha scores are consistent with the .60 to .84 alpha scores calculated on the subscales of the instrument in the latest study of the version of the instrument used in this study. Calculation of Cronbach's alphas, test-retest procedures, and observations of participating teachers' classroom practices were used to establish reliability and validity by Charlesworth and associates in the development of the instrument used in this study (Charlesworth et al., 1993).

Demographic Information about Teachers Surveyed

Of the teachers surveyed 20% received their initial degree from outside of the state of Montana, while 80% received their initial degree from a Montana college or university. The highest degree earned for 85% of the teachers was a Bachelor's degree with 15% holding a Master's degree. None of the teachers surveyed reported holding a degree above the Master's level at this time. Forty-five of the respondents (14%) reported receiving some form of specialized training in early childhood education. One hundred thirty-two of the participants (71%) reported that they chose to teach kindergarten while 54 (29%) reported that they

Table 1. Teacher Educational Demographic Data.

	#	%
Where Degree Was Earned:		
In-state	151	80
Out-of-state	38	20
Highest Degree Earned:		
Bachelor's	158	84
Master's	29	16
Beyond Master's level	0	0
Specialized Training in Early Childhood Education		
Yes	45	24
No	145	76
Felt Undergraduate Program Prepared Them to Teach Kindergarten		
Yes	67	35
No	95	50
Somewhat	27	15
Chose or Assigned to Teach Kindergarten		
Chose	132	71
Assigned	54	29
Members of Professional Organizations	#	
MAEYC	20	
MEA	134	
MFT	1	
No affiliation indicated	56	
Experience	Means	
Number of Years Teaching	13.5	
Number of Years Teaching Kindergarten	8.2	
Number of Years Teaching at Present School	8.4	
Time Spent in Planning and Preparing Materials	Means	
Actual Time Spent Per Week	11.5	
Time Provided Per Week for Planning	4.8	

were assigned to teach kindergarten. Twenty teachers reported that they belonged to the Montana Association for the Education of Young Children (MAEYC) or some other early childhood professional organization. One hundred thirty-four teachers were members of the Montana Education Association (MEA), one was a member of the Montana Federation of Teachers (MFT), and 56 reported belonging to no professional organizations. The average number of years of experience teaching in any capacity was 13.5, with an average of 8.2 years spent teaching kindergarten, and an average of 8.4 years of experience at their current school. Sixty-seven teachers (35%) reported that their formal teacher preparation program had prepared them to teach kindergarten, while 95 (50%) reported that their formal teacher preparation program had not prepared them to teach kindergarten. Twenty-seven (15%) felt that they were somewhat prepared. The teachers surveyed reported spending an average of 11.5 hours per week planning for instruction and preparing materials, but reported only 4.8 hours per week were allotted them for planning and preparation of materials.

Demographic Information about Montana Kindergarten Programs

One hundred thirty-two (68%) of the teachers surveyed reported the structure of their kindergarten programs was half day every day, 13 (7%) reported full day every day programs, 33 (17%) reported full day alternate day programs, and 15 (8%) reported that some other program structure was employed. The mean number of children in each section of kindergarten was 17.5 (with a range of 2 - 27).

The median number of children in each section was 19, with a mode of 20. Six percent of the children in Montana kindergarten classes were retained last year.

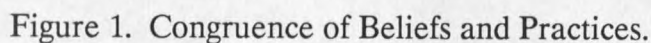
Table 2. Montana Kindergarten Programs Demographic Information.

	#	%
Structure of Programs:		
Half-day every day	132	68
Full-day every day	13	7
Full-day alternate days	33	17
Other	15	8
Number of Children in Each Section of Kindergarten		
Mean 17.5 Median 19 Mode 20 (Range 2 - 27)		
Number of Children Retained per section in Montana Kindergarten Classes in the 1992-93 School Year	3.5	6%

Statistical Tests of Hypotheses

All surveys returned by certified personnel currently teaching kindergarten in Montana were used for analyses, although not all areas of the survey were answered in their entirety (resulting in an inconsistent number of cases reported in some analyses). The data reported and analyzed in this section are arranged according to the five hypotheses stated in Chapter 2.

The strength of the relationship between philosophical beliefs and classroom practices is further illustrated in Figure 1. This figure provides a visual



representation of the congruence of participants' beliefs and practices. Each letter in the graph represents a point of intersection between a participant's belief and practices score on the survey instrument. The letter A represents one participant's intersection point, the letter B is equal to two participant's intersection points, C represents three and so on.

Hypothesis 2

There is no statistically significant relationship between the perception of influences affecting curriculum decisions of certified teachers currently teaching kindergarten in Montana and the developmental appropriateness of teachers' philosophical beliefs.

Table 3 shows the distribution of responses regarding the perception of the importance of each influence in curriculum decisions. The majority of respondents (75%) rated themselves as the greatest influences over curriculum practices.

Each identified influence's relationship with philosophical beliefs was first examined individually, then as a group. The results of this analysis are displayed in Table 4. As might be expected, the impact of any one influence on philosophical beliefs was limited due to the consistency of the rating by respondents (e.g., the 75% rating themselves as most influential). It was found that the higher the respondents rated parental influence, the higher they scored on developmental appropriateness of beliefs. The higher the respondents rated the influence of state regulations, the

Table 3. Frequency of Ranking of Perceived Influences.

PERCEIVED INFLUENCE OF:	FREQUENCY OF RANKING					
	First	Second	Third	Fourth	Fifth	Sixth
PARENTS	2	24	35	37	48	38
SCHOOL POLICY	23	57	30	31	30	14
PRINCIPAL	4	18	58	38	42	23
SELF	142	18	13	8	3	2
STATE REGULATIONS	10	18	28	38	36	54
OTHER TEACHERS	5	50	24	29	27	50

Table 4. Correlation Analysis of Influences and Teachers' Philosophical Beliefs.

INFLUENCES:	SPEARMAN COEFFICIENTS	PROBABILITY
Parents	-0.18169	0.0136
School System Policy	0.02639	0.7215
Principal	-0.04255	0.5674
Self	-0.02403	0.7447
State Regulations	0.20785	0.0046
Other Teachers	-0.03768	0.6106
Parents and Self	-0.16043	0.0296
Principal and Other Teachers	-0.09343	0.2084
School System Policy and State Regulations	0.16295	0.0271

lower the respondent scored on developmental appropriateness of beliefs. The Spearman Correlation Coefficients for these items were $-.18$ and $.21$ respectively (both being statistically significant at $.05$).

In examining combinations of the influence variables using Spearman Correlation Coefficients, it was found that the higher respondents rated themselves and parents as influencing curriculum practices, the higher the respondent scored on developmental appropriateness of beliefs. In addition, the higher respondents rated the influence of state regulations and the local school board, the lower the respondent scored on developmental appropriateness of beliefs. The Spearman Correlation Coefficients for both these combinations were $.16$ (statistically significant at $.05$). Therefore, Hypothesis 2 is rejected. Perceived curriculum influences do appear to have a statistically significant relationship with teachers' philosophical beliefs.

Hypothesis 3

There is no statistically significant relationship between perception of influences affecting curriculum decisions of certified teachers currently teaching kindergarten in Montana and the developmental appropriateness of their classroom practices.

Each identified influence's relationship with classroom practices was first examined individually, then as a group. The results of this analysis are displayed in

Table 5. The higher respondents rated the influence of parents on curriculum decisions, the higher they scored on developmental appropriateness of practices. The higher respondents rated the influence of state regulations, the lower the respondent rated on developmental appropriateness of practices. The Spearman Correlation Coefficients for these items were .27 and .26 respectively (both were statistically significant at .05).

Table 5. Correlation Analysis of Influences and Teachers' Classroom Practices.

INFLUENCES	SPEARMAN COEFFICIENTS	PROBABILITY
Parents	-0.26678	0.0003
School System Policy	0.03855	0.6024
Principal	-0.01797	0.8092
Self	-0.08278	0.2613
State Regulations	0.26080	0.0003
Other Teachers	-0.04376	0.5542
Parents and Self	-0.24205	0.0009
Principal and Other Teachers	-0.05516	0.4583
School System Policy and State Regulations	0.20215	0.0059

In the examination of combinations of the influence variables, it was found that the higher respondents rated themselves and parents as influencing curriculum practices, the higher the respondent scored on developmental appropriateness of

classroom practices. In addition, it was found that the higher respondents rated the influence of state regulations and the local school board, the lower the respondent rated on the developmental appropriateness of their reported practices. The Spearman Correlation Coefficients for these items were .24 and .20 respectively (both being statistically significant at .05). Therefore, Hypothesis 3 is rejected. Perceived curriculum influences do appear to have a statistically significant relationship with teachers' classroom practices.

Hypothesis 4

There is no statistically significant relationship between teachers' philosophical beliefs and the following independent variables: years of experience teaching, number of years the teacher has been teaching kindergarten, number of years the teacher has been employed at the current school, whether the teacher was assigned or chose to teach kindergarten, highest degree earned, whether or not the teacher had specific training in early childhood education, size of the district in which the teacher is working, and membership in MAEYC.

To assess the relationship between teachers' philosophical beliefs and the continuous variables (measures of years of teaching and size of district) Pearson

Correlations were used. T-tests were used to assess the relationship between teachers' philosophical beliefs and the dichotomous variables.

As Table 6 shows, teachers' philosophical beliefs were significantly correlated with the continuous variable size of district. The Pearson Correlation of .19 was significant at $\alpha = .05$.

Table 6. Pearson Correlation Coefficients for Relationship Between Philosophical Beliefs and Continuous Variables.

VARIABLES	CORRELATION COEFFICIENTS	PROBABILITY
Years Taught	0.04645	0.5869
Years Taught at Present School	0.03715	0.6724
Years Taught Kindergarten	0.03072	0.7266
Size of District	0.19452	0.0254

As Table 7 shows, the difference in the means in teachers' philosophical beliefs was significant for highest degree earned and for membership in MAEYC. Teachers with a Master's degree had more developmentally appropriate beliefs (mean of 151.76) than teachers with a Bachelor's (mean of 146.34). Teachers who were members of MAEYC had more developmentally appropriate beliefs (mean of 157.2) than non-members (mean of 145.8). Because three of the independent variables tested have a statistically significant relationship with teachers' philosophical beliefs, Hypothesis 4 is rejected.

Table 7. T-Test on Means of Philosophical Beliefs for Dichotomous Variables.

HIGHEST DEGREE	NUMBER	BELIEFS' MEANS	T-VALUE (Probability)
Bachelor's	156	146.34	-2.0839 0.0385
Master's	31	151.76	

SPECIFIC TRAINING IN EARLY CHILDHOOD	NUMBER	BELIEFS' MEANS	T-VALUE (Probability)
No Specific Training	161	146.49	-1.6685 0.1031
Specific Training	29	150.76	

CHOSE OR ASSIGNED TO TEACH KINDERGARTEN	NUMBER	BELIEFS' MEANS	T-VALUE (Probability)
Chose Kindergarten	132	147.42	0.7166 0.4755
Assigned to Kindergarten	54	145.81	

MEMBERSHIP IN MAEYC	NUMBER	BELIEFS' MEANS	T-VALUE (Probability)
Member of MAEYC	20	157.20	-4.2759 0.0002
Not a Member of MAEYC	171	145.83	

Hypothesis 5

There is no statistically significant relationship between teachers' classroom practices and the following independent variables:

teachers' philosophical beliefs, years of experience teaching, number of years the teacher has been teaching kindergarten, number of years

the teacher has been employed at the current school, whether the teacher was assigned or chose to teach kindergarten, highest degree earned, where the degree was earned, whether or not the teacher had specific training in early childhood education, size of the district in which the teacher is working, and membership in professional organizations.

To assess the relationship between classroom practices and the continuous variables (teachers' beliefs, measures of years of teaching, and size of district) Pearson Correlations were used. T-tests were used to assess the relationship between classroom practices and the dichotomous variables.

As Table 8 shows, classroom practices were significantly correlated with the continuous variables teachers' philosophical beliefs, the number of years teaching kindergarten, and size of district. The Pearson Correlations of .72, .15, and .34, respectively, were significant at $\alpha = .05$.

Table 8. Pearson Correlation Coefficients for Relationship Between Classroom Practices and Continuous Variables.

VARIABLES	CORRELATION COEFFICIENTS	PROBABILITY
Teachers' Philosophical Beliefs	0.71836	0.0001
Total Years Taught	0.15858	0.0693
Years Taught at Present School	0.02420	0.7830
Years Teaching Kindergarten	0.20029	0.0213
Size of District	0.34034	0.0001

The difference in the means in classroom practices was significant for highest degree earned and for membership in MAEYC (see Table 9). Teachers with a Master's degree had more developmentally appropriate practices (mean of 126.94) than teachers with a Bachelor's (mean of 120.86). Teachers who were members of MAEYC had more developmentally appropriate practices (mean of 130.85) than non-members (mean of 120.88). Because five of the independent variables tested have a statistically significant relationship with teachers' classroom practices, Hypothesis 5 is rejected.

Table 9. T-Test on Means of Classroom Practices for Dichotomous Variables.

HIGHEST DEGREE	NUMBER	PRACTICES MEANS	T-VALUE (Probability)
Bachelor's	156	120.86	-2.4614 0.0177
Master's	31	126.94	

SPECIFIC TRAINING IN EARLY CHILDHOOD EDUCATION	NUMBER	PRACTICES MEANS	T-VALUE (Probability)
No Specific Training	161	121.07	-1.9293 0.0612
Specific Training	29	126.45	

CHOSE OR ASSIGNED TO TEACH KINDERGARTEN	NUMBER	PRACTICES MEANS	T-VALUE (Probability)
Chose Kindergarten	132	122.48	0.8906 0.3743
Assigned to Kindergarten	54	120.52	

MEMBERSHIP IN MAEYC	NUMBER	PRACTICES MEANS	T-VALUE (Probability)
Member of MAEYC	20	130.85	-2.9955 0.0065
Not a Member of MAEYC	171	120.88	

Hypothesis 6

Knowledge of highest degree earned, membership in MAEYC, size of district, and perceived influence of parents on curriculum decisions does not account for a significant portion of the variability in teachers' philosophical beliefs.

All variables that were significantly associated with teachers' philosophical beliefs were then regressed to assess their unique contributions. Regression analysis found that collectively these independent variables explained 15% of the variance in teachers' beliefs (see Table 10). All variables were found to be statistically

Table 10. Multiple Regression ANOVA - Philosophical Beliefs as the Dependent Variable.

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F-VALUE	PROBABILITY
Model	4	4173.2897	1043.3224	7.15	0.0001
Error	167	24383.4254	146.0085		
Total	171	28556.7155			
R-square		0.14614	Beliefs Mean 147.04		

SOURCE	DF	SUM OF SQUARES	F-VALUE	PROBABILITY
Highest Degree Earned	1	806.3590	5.52	0.0199
MAEYC Member	1	1144.7287	7.84	0.0057
Size of District	1	718.9226	4.92	0.0278
Parental Influence	1	580.7808	3.98	0.0477

significant at the .05 level in the prediction of the explanation in philosophical beliefs. Hypothesis 6 was therefore rejected.

Hypothesis 7

Knowledge of teachers' philosophical beliefs, highest degree earned, membership in MAEYC, the number of years teaching kindergarten, size of district, and perceived influence of parents does not account for a significant portion of the variability in classroom practices.

These independent variables were regressed on classroom practices to assess their unique contribution to the variability of classroom practices. Regression analysis found that collectively these independent variables explained 57% of the variance in classroom practices (see Table 11). In the regression model, highest degree earned and membership in MAEYC were not statistically significant in the prediction of the variance in practices. The independent variables of philosophical beliefs, years teaching kindergarten, size of district, and parental influence were statistically significant at the .05 level in the explanation of the variance in classroom practices. Hypothesis 7 is therefore rejected.

Table 11. Multiple Regression ANOVA - Classroom Practices as the Dependent Variable.

SOURCE	DF	SUM OF SQUARES	MEAN SQUARES	F-VALUE	PROBABILITY
Model	6	17593.5035	2932.25058	36.01	0.0001
Error	164	13352.6018	81.4183		
Total	170	30946.1053			
R-square 0. 568521 Practices Mean 121.56					

SOURCE	DF	SUM OF SQUARES	F-VALUE	PROBABILITY
Teachers' Beliefs	1	15394.9196	189.08	0.0001
Highest Degree Earned	1	24.0237	0.30	0.5877
Years Teaching Kindergarten	1	871.6547	10.71	0.0013
MAEYC Member	1	120.7808	1.48	0.2250
Size of District	1	715.0382	8.78	0.0035
Parental Influence	1	467.0865	5.74	0.0177

CHAPTER 4

SUMMARY, CONCLUSIONS, DISCUSSION, AND IMPLICATIONS

Kindergarten is now a growing and vital part of most public elementary schools. Although kindergarten programs across the United States began as child-centered and nurturing in orientation (Hinitz, 1988), there has been a recognition of a major shift to a more academic focus in the last twenty years (Connell, 1987; Spodek, 1988a). This shift in emphasis has led to an increase in retention rates (Shepard & Smith, 1988a) and stress related illness among kindergarten children (Burts et al., 1990, 1992). Teachers across the country have questioned this academic shift in focus and voiced concerns (Hitz et al., 1988; Elkind, 1987). Montana educators have joined in this expression of concern over a more academic emphasis in Montana kindergartens (summary of 1991 Early Childhood Symposium Proceedings). The Office of Public Instruction (OPI) in Montana has recommended the use of more developmentally appropriate practices in Montana kindergarten programs (OPI, 1993). This study was conducted to gather data about Montana kindergarten programs and the teachers who implement them.

Summary

The problem of this study was to describe the philosophical beliefs and classroom practices of certified personnel currently teaching kindergarten in Montana public schools and to determine if there was congruence between their philosophical beliefs and classroom practices. The study also examined the relationships between independent demographic variables and the identified philosophical beliefs and classroom practices. In addition the study investigated the participants' perceptions of factors influencing their classroom practices and how these influences affected their philosophical beliefs as well as their classroom practices.

The instrument used to gather this data was the Teacher Questionnaire developed by Charlesworth and associates (Charlesworth et al., 1993). The instrument measures teachers' beliefs, practices, and perceived influences over classroom practices, as well as gathers demographic data for assessment. The survey instrument was distributed to 230 certified personnel currently teaching kindergarten in Montana. A response rate of 86% was realized, with 197 respondents returning the instrument.

The data was analyzed to form a descriptive profile of the teachers and their kindergarten programs and to examine the relationship between demographic variables, perceived influences over practices, and the teachers' philosophical beliefs and their classroom practices. Pearson Product Moment Correlation was used to

test Hypothesis 1. Spearman Correlation Coefficients were used to test Hypotheses 2 and 3. Hypotheses 4 and 5 were tested using Pearson Correlations to assess the relations between the dependent variables and the continuous independent variables and T-test to assess the relationship between the dependent variables and the dichotomous variables. Multiple regression equations were generated to test Hypotheses 6 and 7.

Conclusions and Discussion

Based on analysis of the data, the following conclusions were drawn. Philosophical beliefs are reflected in classroom practices. Teachers' perceptions of influences over classroom practices have an impact on beliefs and practices. The following independent variables are associated with a higher rating in teachers' developmentally appropriate beliefs: obtainment of a Master's degree, membership in the Montana Association for the Education of Young Children, and working in larger Montana school districts. The following independent variables were found to be associated with a higher rating in developmentally appropriate classroom practices: developmentally appropriate beliefs of the teacher, more experience in teaching kindergarten, obtainment of a Master's degree, membership in the Montana Association for the Education of Young Children, and working in larger Montana school districts. The findings of each numbered hypothesis are now discussed.

(1) Teachers' beliefs are reflected in their practices. There is a significant relationship between teachers' philosophical beliefs and their classroom practices. This finding supports the work of Clark and Yinger (1979), Rusher et al. (1992), Spodek (1988b) and others that teachers' practices are greatly influenced by their beliefs and that teachers are guided in their decision-making and judgments by their belief constructs. Brophy (1982) found that teachers adapt the official curriculum to match their own philosophical beliefs and their perception of the needs of their students. Spodek (1988b) found that teachers use their beliefs to interpret the happenings of the classroom. This also supports the research of Clark (1988) and Crow (1987) which found that even preservice teachers interpret their preservice teacher education classes and observations of classroom instruction through their own personal view or beliefs concerning education which were formed by years of observing classroom teachers and other childhood experiences. It would appear that when desiring changes in teachers' classroom practices, it would be expedient to address and identify teachers' beliefs. Any attempts to modify classroom behaviors of teachers should first examine underlying beliefs in order to facilitate success.

Spodek (1988b) found that teachers are often unaware of their basic philosophical beliefs and do not always examine their practices in light of their constructs, thus causing conflict. In addition, he found that teachers need the right atmosphere in order to feel free to examine their beliefs and practices. In their research with preservice teachers, Clark (1988) and Crow (1987) reported similar findings. It would appear that teachers (both in-service and preservice) need to first

be made aware of their beliefs and then given a supportive environment in which to explore how their beliefs and practices fit together. Teachers may need assistance and guidance in making explicit their implicit philosophy and in examining their practices for congruence with beliefs.

(2) Teachers rated themselves as the greatest influence over what they did in the classroom. Seventy-five percent of the respondents reported themselves as the greatest influence over curriculum practices. It would appear that the participants in this study feel in control of what happens in their classrooms.

Statistical analysis found that teachers who rated greater parental influence over classroom practices were more developmentally appropriate in their beliefs. This finding may be due to the emphasis in developmental programs on parental involvement and general attitudes toward the importance of children's families in children's lives and education. Teachers who have more developmentally appropriate beliefs involve parents in the educational process. They generally work with parents to help them understand developmentally appropriate practices by including them in classroom activities and seek to educate them in the important principles of developmentally appropriate practices (Bredekamp, 1988). It may not be that the parents influence the teacher to be more developmentally appropriate in beliefs, but that teachers with more developmentally appropriate beliefs encourage parents to be more involved and promote their involvement in decisions regarding their children and thus perceive them as having greater influence over classroom decisions (Oakes & Caruso, 1990).

Wing (1989) found that teachers' beliefs influenced children's beliefs. It could be possible that teachers' beliefs also influence parents' beliefs. If developmentally appropriate teachers are working more closely with parents and have built a level of trust, they may have greater influence over the beliefs of the parents. Parents who understand why teachers are doing the things they do are generally more supportive of the teacher's position.

If administrators desire greater parental involvement they may want to look at the belief constructs of their teachers concerning parent involvement as a first step. When teachers believe that parents are an important part of their child's education, they communicate that message in their everyday dealings with parents. Conversely, administrators' beliefs regarding parent involvement may also need to be examined. The atmosphere of the school, which is created by the staff and administration, reflects the beliefs and values of the school personnel. If parent involvement is valued, then the arrangement of the physical environment will acknowledge that by providing space for parents and the atmosphere will be "parent-friendly." If parental involvement is not as prominent in the school as desired, maybe the staff and administration are actually projecting the hidden message that parents are not really welcome at the school (Hamilton & Osborne, in press).

Further analysis found that teachers who perceive themselves and parents as having the greatest influence over classroom decisions scored higher in developmentally appropriate beliefs. Conversely, teachers who perceive state

regulations and the local school board as highly influencing classroom practices scored lower in developmentally appropriate beliefs. These findings are consistent with the findings of Charlesworth and associates (1991) that teachers who rated higher in developmentally appropriate beliefs felt more in control of their instructional practices than teachers with lower ratings and were more likely to share power with others (such as parents). Hitz and Wright (1988) found that teachers were concerned over the influence of state regulations which they perceived as pressuring them to increase the emphasis on academics in their classrooms. Rusher, McGrevin, and Lambiotte (1992) found that teachers perceived district administrators and local school boards as more favorable toward academics. Ignatovich (1979) found a distinction between the beliefs about the structure of classrooms and schools between those he classified as being close to the problems of working with children (teachers, principals, parents) and those he classified as being more removed from the everyday problems of classrooms (local school boards and state administrators). The difference in beliefs may be real or simply a perception of Montana teachers, but it does appear to affect the teachers who participated in this survey. There may be a need for more education for local and state school board members concerning the essential elements of developmentally appropriate practices and the philosophy on which it is based.

(3) Teachers who rated parents as having more influence over classroom practices rated higher in developmentally appropriate practices. This finding appears to be contradictory to research conducted in the 1970's and 1980's which

found that parents supported more academic emphasis in kindergarten programs than teachers (Van Cleaf, 1979; Hatch & Freeman, 1988; Hill, 1984; Knudsen-Lindauer & Harris, 1989) and that teachers felt pressured by parents to provide a more academic than child-centered emphasis in their kindergarten programs (Fromberg, 1989; Hitz & Wright, 1988; Walsh, 1989). Participants in this study apparently do not feel extreme pressure from parents to put more emphasis on academics in their kindergarten programs. It may be that as the public attention was turned toward the increased problems with highly structured academic kindergarten programs (Burts et al., 1990; Elkind, 1986; Gallagher & Coché, 1987; Shepard & Smith, 1988a) parents began to understand why early academic emphasis was not in the best interest of their children and became better educated on the developmental needs of young children.

Once again the beliefs and practices of the teacher may have influenced parental beliefs and actions toward greater acceptance of child-centered kindergarten curriculum. In addition, the push for greater parental involvement in schools has helped many parents become more actively involved in their children's education which has led to a more team oriented approach for parents, teachers, and administrators. Bringing parents into the educational decision making role brought them closer to the everyday problems teachers face and has helped open the lines of communication between parents and teachers. This gives teachers a greater chance to gain parental trust and the opportunity to influence the beliefs of parents as they increase their interactions. Montana teachers may be

communicating with and educating parents in developmentally appropriate practices so that more parents are now beginning to demand developmentally appropriate kindergarten programs.

State regulations also affect teacher practices. When teachers perceive the state as having more control over their classroom practices, their practices become less developmentally appropriate. The Montana Office of Public Instruction (OPI) may need to examine standards and guidelines to determine if they restrict teachers' movement toward developmentally appropriate practices or if it is the teachers' (or administrators') interpretation of those guidelines. State standards and guidelines may need to be changed or clarified to reflect OPI's support of developmentally appropriate practices.

(4) Teachers' philosophical beliefs were significantly correlated with size of school district in which they worked, highest degree earned, and membership in the Montana Association for the Education of Young Children (MAEYC). Teachers from larger districts rated higher in developmental appropriateness of beliefs than teachers from smaller districts. Rusher, McGrevin, & Lambiotte (1992) found that suburban districts (enrollment between 4,000 and 50,000, which would be the same group that Montana's larger districts would fall into) were more in agreement with developmentally appropriate beliefs and practices than those from rural (defined as an enrollment of 0 - 4,000) or urban (defined as an enrollment of 50,000 +).

Teachers in smaller districts often commented on the survey instrument of their lack of in-service classes addressing developmentally appropriate practices and expressed

a desire for more training in this area from their school district or OPI. It could be that teachers from larger districts are provided more in-service training and additional resources, such as journals and videos, in developmentally appropriate practice. It could also be possible that larger districts have a larger pool of applicants from which to choose kindergarten teachers and place teachers with more developmentally appropriate beliefs in their kindergarten classrooms. Further examination of the data found that teachers from smaller districts were more likely to have been assigned to teach kindergarten (as opposed to choosing to teach kindergarten) than their counterparts in larger districts. This finding could also be a contributing factor in the more developmentally appropriate beliefs of teachers from larger districts.

Smith and Shepard (1988) found that teachers' beliefs are interwoven with school structure and climate. They also found that beliefs were highly correlated with the beliefs of others in the same environment. In addition, Krasnow (1991) and Becker and Epstein (1982) found that the structure and organization of the school can affect attitudes toward families and academic emphasis in the classroom (two of the essential elements of developmentally appropriate practices). One explanation for more developmentally appropriate beliefs of teachers in larger districts could be the structure of the district or the association with others with more developmentally appropriate beliefs. Certain types of organizational structure may be more supportive of developmentally appropriate beliefs than others.

Teachers holding a Master's degree had more developmentally appropriate beliefs than teachers holding a Bachelor's degree. One possible explanation for this may be the emphasis placed on research in most graduate programs. Teachers may be more likely to assess their beliefs and try to reconcile them with their readings. Krasnow (1991) would suggest that teachers engaged in research of their own teaching attempt to make sense of their experiences through their research. Thus, teachers who have experienced a more research-oriented teacher education program (such as graduate studies) may apply those techniques in assessing their own teaching. Those who take the initiative to pursue a Master's may also be more willing to continue questioning and examining their teaching practices as well as philosophical beliefs. Teachers who have acquired Master's degrees may think of themselves in a more professional manner than teachers with Bachelor's degrees and be willing to take responsibility and question their effectiveness. Such examination may lead teachers to question long held beliefs about how children learn and cause them to reassess and reconstruct their personal philosophies of teaching to accommodate more developmentally appropriate beliefs. Whether obtaining a Master's degree promoted developmentally appropriate beliefs or whether teachers who take the initiative to obtain a Master's are more likely to be more developmentally appropriate is uncertain at this time and might represent a useful topic for further research.

Teachers who were members of the Montana Association for the Education of Young Children (MAEYC) rated higher on developmentally appropriate beliefs

than non-members. MAEYC co-sponsors a state early childhood conference each year which provides participants with information on developmentally appropriate practices. Local chapters of MAEYC also have local meetings and conferences on topics related to developmentally appropriate practices. MAEYC is affiliated with the National Association for the Education of Young Children (NAEYC) and all members of MAEYC receive the national journal Young Children which features articles on developmentally appropriate practice and promotes developmentally appropriate beliefs through reviews of research and other articles. Teachers who have chosen to join MAEYC may have more developmentally appropriate beliefs than those who do not. Although MAEYC is currently attempting to attract primary teachers and was the driving force behind the push for the adoption of an early childhood endorsement in Montana, it may not be that they are influencing teachers' beliefs as much as they are simply attracting teachers who share the same interest as the organization. Teachers of similar beliefs tend to congregate together and provide support for each other (Smith & Shepard, 1988).

No statistically significant relationship was found between the beliefs or practices of those who had specific early childhood training and those who did not. Previous research would indicate that specific training in early childhood would make a difference. Snider (1990) and others found that teachers' knowledge of developmentally appropriate practice is affected by the number of courses in early childhood education and child development they have taken. It is not certain at this time why this is not the case in Montana. It may be a flaw in the survey instrument

(the way the question was asked) or other variables that were not taken into consideration by the researcher. It may be that Montana elementary teacher education programs already include many of the essential elements of developmentally appropriate practices and already endorse most developmentally appropriate beliefs, therefore teachers graduating from these programs have significant knowledge to form developmentally appropriate beliefs without the need for specific classes in these principles. It may also be that Montana early childhood programs are not equipping their graduates with the knowledge of the essential elements of developmentally appropriate beliefs and therefore their specific training is not aiding in the advancement of developmentally appropriate beliefs. There is simply not enough information to form any definitive conclusion at this time. This lack of finding may offer support for NCATE's position of the need for an underlying theme in teacher education programs rather than a more eclectic approach.

(5) Teachers with developmentally appropriate beliefs were found to rate higher in developmentally appropriate practices. Furthermore, higher ratings in developmentally appropriate practices were positively associated with years teaching kindergarten, Master's degree, size of district, and membership in MAEYC.

Teachers who have taught kindergarten longer may have adjusted their practices to meet the individual needs of the children. Clark and Peterson (1986) found that more experienced teachers are more confident in their beliefs and are more willing to act on their beliefs. Experienced teachers are more willing to trust

their own judgments and make curriculum decisions based on these judgments. Kagan and Tippins (1991) found that experienced teachers are more confident that they can control their class and are therefore freer to focus their concerns on instructional practices. Fuller's Stages of Teacher Concerns (1969) found that beginning teachers are often more concerned with classroom management and survival issues, and only with experience did they move away from those concerns and become more focused on instructional practices' effects on students. A higher sense of self-efficacy may lead teachers to examine and question long established practices and to be willing to make changes in practices that bring them into congruence with their perceived needs of students. Brousseau, Book, and Byers (1988) found that experienced teachers have more trust in their students. Teachers with more experience, who trust their students more, may be more willing to let their students guide their practices, thus a more child-centered approach.

(6) The four independent variables which were found to be significantly correlated with beliefs (highest degree earned, membership in MAEYC, size of district, and perceived parent influence) were all found to make unique contributions in explaining variances in philosophical beliefs. These variables provide a parsimonious profile of what characterizes teachers with developmentally appropriate beliefs. It should be noted, however, that although these variables did make unique contributions in predicting philosophical beliefs, collectively they only explained 15% of the variance. This in no way represents a complete or even

adequate profile of teachers with more developmentally appropriate beliefs.

Further research in this area is recommended.

(7) Of the six independent variables which were found to be significantly correlated with practices (philosophical beliefs, highest degree earned, years teaching kindergarten, membership in MAEYC, size of district, and perceived parent influence) only two were not found to make unique contributions in explaining variances in classroom practices. The independent variables highest degree earned and MAEYC membership were not found to make unique contributions to the predictability of practices. It appears that these two variables (which each made unique contributions to beliefs) are so correlated with beliefs as to become a function of beliefs and no longer valid predictors of practices on their own. The other four independent variables provide a limited profile of what characterizes teachers who employ developmentally appropriate practices. Collectively these variables explain 57% of the variance in practices. Although an incomplete profile of teachers utilizing more developmentally appropriate practices, it does provide vital information concerning the importance of beliefs in predicting practices. Further research is needed in this area.

Implications

The findings of this study suggest implications in several areas of practice in education.

Implications for Teacher Education Programs

(1) It is important that teacher education students be afforded opportunities to identify their beliefs and scrutinize educational practices to determine which are congruent with their beliefs. Although many teacher education students are more interested in learning "what to do" in the classroom, teacher education programs need to emphasize the reasons that knowing "why" certain practices are appropriate or inappropriate is meaningful. Students need to recognize why what they believe is important and how it will impact what they do in the classroom. They must make the connection between what they think and believe and how they will apply that knowledge in their work with children. Pre-student teaching field experiences (such as MSU's para program) could be used to promote these connections. Actual classroom situations the students encounter or case studies need to be critically examined and discussed within a safe and supportive environment in order to help students bridge the gap between theory and practice.

(2) Teacher education programs need to emphasize the importance of questioning their current practices. Students need to begin in their preservice training to challenge established educational practices and research and not just accept the status quo. The model of the "reflective practitioner" would be one way in which teacher education programs could encourage this practice. Education students who learn to question their beliefs and practices while in their preservice training will be more likely to continue this practice once they are in the classroom.

It should be noted, however, that students need a safe environment in which to take this type of risk in order to be successful.

(3) Teacher education students need to receive training in state law, standards, and guidelines. To avoid misconceptions about the restrictions placed upon teachers in the classroom, teacher education students need to have an explicit understanding of these regulations. Classroom activities such as case studies and/or role plays could be utilized to increase students' understanding.

(4) To continue the trend of a positive effect by interactions with parents on developmentally appropriate beliefs and practices, education students need to learn to work with parents in appropriate ways. With the advent of the eighth national education goal which mandates parent involvement (U. S. Department of Education, 1994), beginning teachers need to enter the field with an understanding of the importance of the family in the child's education and strategies for communicating and working effectively with parents.

Implications for Administrators

(1) Teachers need to be encouraged to examine their beliefs and practices. They, like preservice teachers, need an environment conducive to taking risk in order to be successful at this endeavor. Administrators should be willing to support teachers in this process and recognize the growth that occurs when teachers learn to question their practices. Teachers need to understand how their thinking guides their actions. Teachers also need to be given opportunities to attend conferences

and meet with others who support developmentally appropriate practices to aid in their own formation of developmentally appropriate beliefs and practices.

(2) If beliefs drive practices, administrators need to recognize that beliefs are resistant to change and take this into consideration when planning in-service training for their staff. Changing practices without addressing beliefs may be unsuccessful. In addition, change theory states that change is a time consuming process, and teachers need to feel supported while engaged in this process (Fullan, 1982; Hall & Hord, 1987).

(3) Administrators interested in promoting parent involvement may want to look at the essential elements of developmentally appropriate practices concerning working with families. Developmentally appropriate training could encourage teachers to work with parents by promoting a change in beliefs or attitudes concerning the importance of parents in the lives of their children. In addition, training in developmentally appropriate practices can help teachers discern the importance of informing parents of classroom activities.

Implications for the Montana Association for the Education of Young Children

(1) The Montana Association for the Education of Young Children needs to focus their attention on attracting more primary teachers for membership in the organization. Not only would this be a way to support teachers who are developmentally appropriate in their beliefs and practices, but it could also enhance

the expansion of those beliefs and practices to others in which they come into contact.

Implications for the Montana Office of Public Instruction

(1) OPI needs to examine their regulations to determine if it is the regulations which are restricting teachers moving toward developmentally appropriate practices or the teachers' interpretation of the regulations. There may be a need for changes in policies or a need for training for teachers and administrators in understanding the policies.

(2) There appears to be a need for education for the state and local school boards on developmentally appropriate practices and their importance.

(3) OPI may want to facilitate or encourage smaller school districts to collaborate in providing training for primary teachers in developmentally appropriate practices.

(4) OPI and local school districts may want to encourage teachers to pursue graduate work.

Implications for Further Research

The following are questions raised by this study which indicate a need for further research.

(1) Are certain types of organizational structures in schools more supportive of developmentally appropriate practices?

(2) Does obtaining a Master's degree promote developmentally appropriate beliefs or are teachers interested in attending graduate school more developmentally appropriate to begin with?

(3) Why didn't specific training in early childhood education make a statistically significant difference in this study?

(4) What are the factors that determine which teachers are more developmentally appropriate? Can a more comprehensive profile be established?

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APPENDICES

APPENDIX A

ADVANCE LETTER FROM NANCY KEENAN

The Office of Public Instruction

Nancy Keenan
State Superintendent



State Capitol
PO Box 202501
Helena, Montana 59620-2501
(406) 444-7362
FAX No. (406) 444-2893

November 15, 1993

Dear Kindergarten Teacher:

I know how busy you are, but do you have a minute?

You have been selected to participate in an important study of Montana kindergarten programs. In a few days you will receive a survey which asks you to give your opinion on kindergarten practices in Montana and what you believe should take place in the classroom. I urge you to complete the survey and return it as soon as possible.

The researcher will share the results of this survey with my office, the Montana Board of Public Education, other educational organizations throughout the state, and with you, the participant. This information will be useful in planning staff development and in making needed changes to teacher education programs in our state. In addition, the information may be useful in establishing policies concerning kindergarten programs in Montana.

It is important that your voice be heard. If the study is to be a true representation of Montana kindergarten teachers, all surveys need to be returned. When the survey arrives, please take a few minutes to complete the questionnaire and return it.

Thanks for your help with this important project.

Sincerely,

Nancy Keenan

APPENDIX B
COVER LETTER AND SURVEY INSTRUMENT



**Department of
Education**

Unit of Curriculum & Instruction
Unit of Educational Leadership

College of Education
Health & Human Development
Montana State University
Bozeman, MT 59717-0288

Telephone 406-994-3120

November 15, 1993.

Dear Kindergarten Teacher:

Studies conducted throughout the nation find many kindergarten teachers are concerned about recent changes they feel have occurred in kindergarten curricula. Teachers are often disconcerted by mismatches between what they believe should take place in kindergarten and the programs they are required to implement in their current positions. Are Montana kindergarten teachers experiencing similar concerns? Policy makers need data concerning the beliefs and practices of Montana kindergarten teachers to shape kindergarten policies and/or suggest changes in preservice and inservice training in Montana.

The State Board of Education needs to know what you think about Montana kindergarten programs. The Board is currently considering adoption of a permissive endorsement in early childhood education in Montana. This could lead the way to changes in kindergarten policies and teacher education programs. Information from this study will be shared with the State Board of Education and could affect their decision concerning the adoption of this endorsement.

You are one of a select number of Montana kindergarten teachers being asked to provide information about your beliefs and practices concerning kindergarten curriculum. For the results to truly represent the beliefs and practices of Montana kindergarten teachers it is important that each survey be returned. Please take a few minutes to fill out this survey and return it as soon as possible.

This study is completely confidential. We have placed an identification number on this survey so we can check your name off the list when your questionnaire is returned. Your name will not appear on this survey at any time nor will it be associated with any of the reported results.

Results of this study will be shared with the State Board of Education, Office of Public Instruction, and others interested in kindergarten teachers' concerns. If you would like to receive a copy of the results, please write your name and address and "copy of results requested" on the back of the return envelope, not on the survey itself.

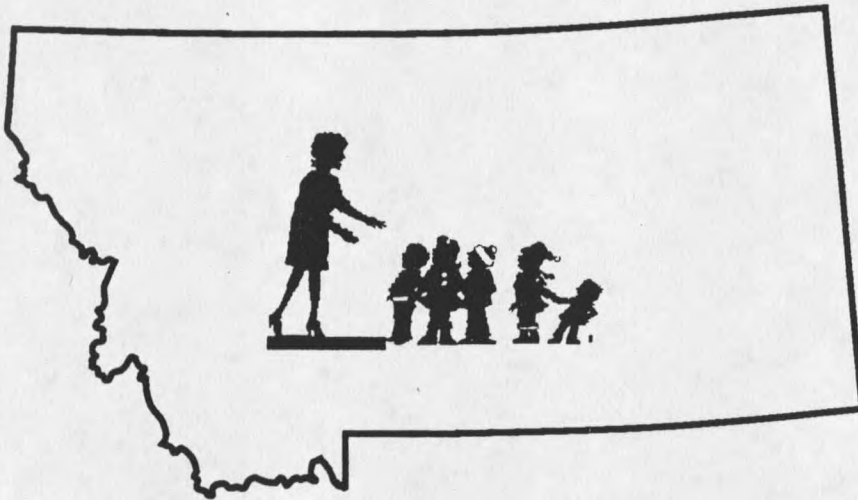
I would be happy to answer any questions you might have. I can be contact at 117 Herrick Hall, Montana State University, Bozeman, MT 59717, (406) 994-4746.

Thank you for your assistance.

Sincerely,

Debbi Hamilton
Research Director

Beliefs and Practices of Montana Kindergarten Teachers



* Confidentiality of respondents is guaranteed. Names and schools of respondents will NOT be used in any reports from this study.

* Please complete all three sections of the survey and read the instructions carefully for each section. There are no right or wrong answers; first impressions are usually best. We need an accurate accounting of your beliefs and current practices in order to properly represent Montana kindergarten teachers.

* We appreciate your honest and timely response to this survey.

117 Herrick Hall
Montana State University
Bozeman MT 59717
(406) 994-4746

General Information

College or University Attended	Degree Earned (ei: BA)	Area or Field of Degree (ei: Elem Ed.)	Options or Minors Earned
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

1. Do you feel your formal training prepared you to teach kindergarten? _____
2. If yes, what classes did you find particularly helpful?

3. If no, what classes (or topics) do you feel need to be added to the program?

4. What, if any, in-service or staff development training have you received designed to help you teach kindergarten?

5. What, if any, inservice or staff development training would you like to receive to help you teach kindergarten?

6. How many years, including this one, have you taught? _____
7. How many years, including this one, have you taught at present school? _____
8. How many years, including this one, have you taught kindergarten? _____
9. How many years, including this one, have you taught at present school? _____
10. Did you choose to teach kindergarten or were you assigned to teach kindergarten? _____
11. If you are a member of any professional organization, please list below (ex. MEA, MFT, MAEYC). _____

12. How many hours a week on average do you spend planning instruction and/or preparing materials? _____
13. How many hours a week of planning time are you provided? _____
14. How many children were retained in kindergarten or placed in a readiness or transition program at your school last year? _____
15. What is the structure of your kindergarten program?
 - _____ half day everyday
 - _____ full day everyday
 - _____ full day alternate days
 - _____ Other (please describe)

16. How many sections of kindergarten do you teach? _____
17. How many children are in each section? _____
18. Do you teach any other classes or have other duties (ie. administrative)?
Please describe! _____

19. To whom do you turn if/when problems arise? _____

TEACHER BELIEFS SURVEY

1. Rank the following (1-6, with 1 being the most influential) by the amount of influence you feel that each has on the way you plan and implement instruction. (Please be sure to use each number only once.)

parents	_____
parish or school system policy	_____
principal	_____
teacher (yourself)	_____
state regulations	_____
other teachers	_____

Please respond to the following items by circling the number that most nearly represents **YOUR PERSONAL BELIEFS** about the importance of that item in a kindergarten program.

	1	2	3	4	5			
	Not Important At All	Not Very Important	Fairly Important	Very Important	Extremely Important			
2.	As an evaluation technique in the kindergarten program, standardized group tests are_____.							
				1	2	3	4	5
3.	As an evaluation technique in the kindergarten program, teacher observation is _____.							
				1	2	3	4	5
4.	As an evaluation technique in the kindergarten program, performance on worksheets and workbooks is _____.							
				1	2	3	4	5
5.	It is _____for kindergarten activities to be responsive to individual differences in interest.							
				1	2	3	4	5
6.	It is _____for kindergarten activities to be responsive to individual differences in development.							
				1	2	3	4	5
7.	It is _____that each curriculum area be taught as separate subjects at separate times.							
				1	2	3	4	5

	1 Not Important At All	2 Not Very Important	3 Fairly Important	4 Very Important	5 Extremely Important
8. It is _____ for teacher - pupil interactions in kindergarten to help develop children's self - esteem and positive feelings toward learning.	1	2	3	4	5
9. It is _____ for children to be allowed to select many of their own activities from a variety of learning areas that the teacher has prepared (blocks, science center, etc.)	1	2	3	4	5
10. It is _____ for children to be allowed to cut their own shapes, perform their own steps in an experiment, and plan their own creative drama, art, and writing activities.	1	2	3	4	5
11. It is _____ for students to work silently and alone on seatwork.	1	2	3	4	5
12. It is _____ for kindergartners to learn through active exploration.	1	2	3	4	5
13. It is _____ for kindergartners to learn through inter - action with other children.	1	2	3	4	5
14. Workbooks and /or ditto sheets are _____ to the kindergarten program.	1	2	3	4	5
15. Flashcards (numbers, letters, and/or words) are _____ to the kindergarten program for instructional purposes.	1	2	3	4	5
16. The basal reader is _____ to the kindergarten reading program.	1	2	3	4	5
17. In terms of effectiveness, it is _____ for the teacher to talk to the whole group and make sure everyone participates in the same activity.	1	2	3	4	5

	1 Not Important At All	2 Not Very Important	3 Fairly Important	4 Very Important	5 Extremely Important
18. In terms of effectiveness, it is _____ for the teacher to move among groups and individuals, offering suggestions, asking questions, and facilitating children's involvement with material and activities.	1	2	3	4	5
19. It is _____ for teachers to use their authority through treats, stickers, and/or reprimands to encourage appropriate behavior.	1	2	3	4	5
20. It is _____ for teachers to use their authority through punishments and/or reprimands to encourage appropriate behavior.	1	2	3	4	5
21. It is _____ for children to be involved in establishing rules for the classroom.	1	2	3	4	5
22. It is _____ for children to be instructed in recognizing the single letters of the alphabet, isolated from words.	1	2	3	4	5
23. It is _____ for children to color within predefined lines.	1	2	3	4	5
24. It is _____ for children in kindergarten to form letters correctly on a printed line.	1	2	3	4	5
25. It is _____ for children to have stories read to them individually and/or on a group basis.	1	2	3	4	5
26. It is _____ for children to dictate stories to the teacher.	1	2	3	4	5

	1 Not Important At All	2 Not Very Important	3 Fairly Important	4 Very Important	5 Extremely Important
27. It is _____ for children to see and use functional print (telephone books, magazines, etc.) and environmental print (cereal boxes, potato chip bags, etc.) in the kindergarten classroom.	1	2	3	4	5
28. It is _____ for children to participate in dramatic play.	1	2	3	4	5
29. It is _____ for children to talk informally with adults.	1	2	3	4	5
30. It is _____ for children to experiment with writing by inventing their own spelling.	1	2	3	4	5
31. It is _____ to provide many opportunities to develop social skills with peers in the classroom.	1	2	3	4	5
32. It is _____ for kindergartners to learn to read.	1	2	3	4	5
33. In the kindergarten program, it is _____ that math be integrated with all other curriculum areas.	1	2	3	4	5
34. In teaching health and safety, it is _____ to include a variety of activities throughout the school year.	1	2	3	4	5
35. In the classroom setting, it is _____ for the child to be exposed to multicultural and nonsexist activities.	1	2	3	4	5
36. It is _____ that outdoor time have planned activities.	1	2	3	4	5
37. Input from parents is _____.	1	2	3	4	5

INSTRUCTIONAL ACTIVITIES SURVEY

Please respond to the following items by circling the number that most nearly represents how often your children participate in the following activities, on the average.

	1 Almost Never (less than monthly)	2 Rarely (monthly)	3 Sometimes (weekly)	4 Regularly (2-4 x week)	5 Very Often (daily)
1. building with blocks	1	2	3	4	5
2. children selecting centers (home, book, math, science, writing, etc.)	1	2	3	4	5
3. participating in dramatic play	1	2	3	4	5
4. listening to records and/or tapes	1	2	3	4	5
5. doing creative writing (combining symbols/ invented spelling and drawing)	1	2	3	4	5
6. playing with games and puzzles	1	2	3	4	5
7. exploring animals, plant, and/or wheels and gears	1	2	3	4	5
8. singing and/or listening to music	1	2	3	4	5
9. creative movement	1	2	3	4	5
10. cutting their own shapes from paper	1	2	3	4	5
11. playing with manipulatives such as pegboards, puzzles, and/or Legos	1	2	3	4	5

	1	2	3	4	5		
	Almost Never (less than monthly)	Rarely (monthly)	Sometimes (weekly)	Regularly (2-4 x week)	Very Often (daily)		
12.	coloring and/or cutting predrawn forms		1	2	3	4	5
13.	children reading in ability level groups		1	2	3	4	5
14.	circling, underlining, and or marking items on worksheets		1	2	3	4	5
15.	using flashcards with sight words and/or math facts		1	2	3	4	5
16.	rote counting		1	2	3	4	5
17.	practicing handwriting on lines		1	2	3	4	5
18.	reciting the alphabet		1	2	3	4	5
19.	copying from the chalkboard		1	2	3	4	5
20.	sitting for longer than 15 minutes		1	2	3	4	5
21.	waiting for longer than 5 minutes between activities		1	2	3	4	5
22.	large group teacher directed instructions		1	2	3	4	5
23.	children coordinating their own activities in centers		1	2	3	4	5
24.	tangible rewards for appropriate behavior and/or performance		1	2	3	4	5
25.	losing special privileges (trips, recess, free time, parties, etc.) for misbehavior		1	2	3	4	5

	1 Almost Never (less than monthly)	2 Rarely (monthly)	3 Sometimes (weekly)	4 Regularly (2-4 x week)	5 Very Often (daily)
26.	social reinforcement (verbal praise, approval, attention, etc.) for misbehavior				
			1	2	3
				4	5
27.	using isolation (standing in the corner or outside of the room) to obtain child compliance				
			1	2	3
				4	5
28.	games/activities directed by or made by parents				
			1	2	3
				4	5
29.	specifically planned outdoor activities				
			1	2	3
				4	5
30.	multicultural and nonsexist activities				
			1	2	3
				4	5
31.	competitive math activities to learn math facts				
			1	2	3
				4	5
32.	health and safety activities				
			1	2	3
				4	5
33.	drawing, painting, working with play dough, and other art media				
			1	2	3
				4	5
34.	math incorporated with other subject areas				
			1	2	3
				4	5

Thank you for completing this survey.

Is there anything else you would like to say about your kindergarten program or your teacher preparation? Any comments you would like to make about problems and concerns would also be appreciated. If so, please use the space below for that purpose.

For participating in this survey, you will receive two informational brochures which may be useful to you in working with parents in your area. This is just a small token to thank you again for your participation.

Please place your completed questionnaire in the enclosed stamped, self-addressed envelope and mail. It would be appreciated if you would return this survey as soon as possible.

Your contribution to this project is greatly appreciated. Remember, if you would like a summary of the results, please print your name and address on the back of the return envelop (NOT on the survey itself).

APPENDIX C
FOLLOW-UP POSTCARD

Recently a survey on Montana Kindergarten Teachers' Beliefs and Practices was mailed to you. If you have already completed and returned the survey, please accept my sincere thanks. If not, please do so today. Because the survey has been sent to only a small, but representative sample of Montana kindergarten teachers, it is extremely important that yours be included in the study if the results are to accurately represent the beliefs and practices of Montana kindergarten teachers.

If by some chance you did not receive the survey, or it was misplaced please call me at 994-4746 during the day, or in the evening, collect, at 587-2191 and I will get another one in the mail to you.

Sincerely,

Debbi Hamilton

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