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Measuring Knowledge Of Developmentally Appropriate Practice While Comparing And Exploring Disciplines Of Study, Learning Styles, Degree Of Flexibility, And Values Of Students Enrolled In A Home Economics Child Development Laboratory

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This research is a product of the graduate program in [Home Economics](#) at Eastern Illinois University. [Find out more](#) about the program.

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MEASURING KNOWLEDGE OF DEVELOPMENTALLY
APPROPRIATE PRACTICE WHILE COMPARING AND
EXPLORING DISCIPLINES OF STUDY, LEARNING
STYLES, DEGREE OF FLEXIBILITY, AND VALUES
OF STUDENTS ENROLLED IN A HOME ECONOMICS
CHILD DEVELOPMENT LABORATORY

O'ROURKE

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Measuring Knowledge of Developmentally Appropriate
Practice While Comparing and Exploring Disciplines
of Study, Learning Styles, Degree of Flexibility,
(TITLE)
and Values of Students Enrolled in a Home Economics
Child Development Laboratory

BY

Kathleen A. O'Rourke

THESIS

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FOR THE DEGREE OF

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IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
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1995

YEAR

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ABSTRACT

O'Rourke, Kathleen A. (1995). Measuring Knowledge of Developmentally Appropriate Practice While Comparing and Exploring Disciplines of Study, Learning Styles, Degree of Flexibility, and Values of Students Enrolled in a Home Economics Child Development Laboratory. Master of Science, Eastern Illinois University. Major professor: S. Jayne Ozier, Ph.D.

The purpose of this study was to measure child development laboratory practicum students' knowledge of developmentally appropriate practice for toddlers, three-, four-, and five-year old children while comparing and exploring students' college major, learning style, degree of flexibility, beliefs, and values. The sample was comprised of 36 students enrolled in a home economics child development laboratory practicum. Data were collected using the Developmentally Appropriate Practice Inventory (DAPI), the Learning Styles Assessment, the Flexibility Index, and the Values Clarification. The 96-item DAPI was adapted from the National Association for the Education of Young Children's integrated components of developmentally appropriate practice for toddlers through 5-year old children. The Learning Styles Assessment, the Flexibility Index, and the Values Clarification were adapted from Jorde Bloom, Sheerer, & Britz (1991). The Learning Styles Assessment placed students into one of three classifications of learning styles: analytical, global, or integrated. The Flexibility Index identified students as conservative or flexible and more open to change. The Values Clarification

tool provided qualitative data regarding students' beliefs and values concerning children, parents, and teaching roles. Out of a possible 96, the students scored an average of 72.25 on the DAPI pre-test and an average score of 74.33 on the DAPI posttest. Students scored highest on the DAPI subscale regarding 4- and 5-year old children. Out of 32 on the subscale, students scored an average of 26.36 on the pre-test and 27.31 on the posttest. Home Economics students scored an average of 74.06 on the pre-test compared to early childhood education students' average score of 70.63. On the DAPI posttest early childhood education students scored 75.53 and home economics students scored an average of 73.00. Five students had a strong preference for an integrated style of learning and four students an analytical style with the remaining 27 student falling short of having a strong preference of one learning style. There was not a significant correlation between learning style and students' DAPI scores. Thirty-three students were considered conservative while two students were considered flexible. There was not a significant correlation between degree of flexibility and students' DAPI scores. Students began and ended the semester with a slightly above average knowledge of developmentally appropriate practice. Further research is recommended on knowledge of developmentally appropriate practice, as well as students' various disciplines of study, learning styles, degree of flexibility, beliefs and values.

DEDICATION

This research is dedicated to the Eastern Illinois University, School of Home Economics, Child Development Laboratory staff, Dr. S. Jayne Ozier, Dr. Frances Murphy, Mrs. Carolyn Woolever, and Miss Dana Barber; and to Abigail, Andrew, Cassidy, Derek, Jacob, John Patrick, Kayla, Maggie, Peighton, Savannah, and Tommy, the children who reminded me of the importance of my research on a daily basis.

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CHAPTER I: INTRODUCTION

Background

With the rise in concern over the quality of child care, researchers (Bredekamp, 1987) have been attempting to identify factors that enrich child care practices. If child care programs are to be successfully implemented, individuals working with children need to utilize supported research which specifies the components of a quality program and the resulting outcomes.

When the topic of developmentally appropriate practice was first introduced (Bredekamp, 1987) to early childhood professionals as an approach to creating quality programs, the broad definition provided by the National Association for the Education of Young Children (NAEYC) was immediately in need of a more clearly defined description of appropriate practice. "Developmentally appropriate practice is a two-dimensional concept of age appropriateness and individual appropriateness in regard to young children" (Bredekamp, 1987, p.2). While clarifying the concept, NAEYC continued to actively promote the use of developmentally appropriate practice in all early childhood programs. NAEYC (1987) defined an early childhood program, as "any part-day or full-day group program in a center, school, or other facility, that serves children from birth through age 8 and includes child care centers, private and public preschools, kindergartens, and primary grade schools". (p.1)

NAEYC's (1987) definition of developmentally appropriate practice includes both age appropriateness and individual appropriateness. Knowledge of the age span of children served by the program enables caregivers to prepare a quality learning environment and appropriate experiences for each individual child. Caregivers would know the first nine years of a child's life involve universal, predictable sequences of physical, emotional, social and cognitive changes. Also, caregivers would respect that individuality of a child encompasses patterns and timing of growth, along with individual personality, learning style, and family background. Program curriculum and caregiver interactions should be responsive to children's individual characteristics and overall developmental levels.

Statement of the Problem

The researcher was primarily concerned with the problem of the quality of care and the quality of the environment children are exposed to in child development and early childhood programs. The concern for quality is the underlying foundation for the current research. The research involved a sample of home economics and early childhood education practicum students in a university child development laboratory setting. Research focused on students' knowledge, learning styles, flexibility, values, and beliefs; all variables which affect the quality of care offered to children.

Over twenty years ago a U.S. Government study issued the following statement (Joint Commission of Mental Health of Children, 1969):

"This nation, the richest of all world powers, has no unified national commitment to its children and youth. The claim that we are a child-centered society, that we look to our young as tomorrow's leaders, is a myth. Our words are made meaningless by our actions, by our lack of national, community, and personal investment in maintaining the healthy development of our young.... As a tragic consequence, we have in our midst millions of ill-fed, ill-housed, ill-educated, and discontented youngsters and almost 10,000,000 under age 25 who are in need of help from mental health workers...." (p. 2)

In 1988 Linton & Forster contended the 1969 Joint Commission's declaration remained true and the situation of children had worsened. Still later parents faced the child care system in the United States with "little confidence, little knowledge, and less power to change" the system (Boyer, 1991, p. 50). The United States responded with seven educational goals to ensure that all children will be "ready to learn" by the year 2000 (Boyer, 1991, p. 135). High quality preschool programs are needed for good care and school readiness. The child development and early childhood professions are challenged to develop a committed and unified approach to improving the quality of life and care for our nation's children.

According to Horm-Wingerd & Cohen (1991), campus child care research is imperative to ensure program quality both on campus and to the extended community. Campus child care and child development laboratory programs can promote

appropriate practices by making research findings and implications known to programs' staff within the community (Horm-Wingerd, et al. 1991; Winkelstein, 1992). Child development and early childhood professionals and researchers have a responsibility to possess knowledge of children's age and individual differences to improve the quality of programs and better serve children.

Effort for understanding developmental appropriateness for children may be examined by determining what influences a teacher's performance. Gove (1983) stated "teachers' attitudes and beliefs about children provide a foundation for their philosophy of teaching. Because beliefs are grounded in one's values, they have a strong impact on shaping behavior". The selection of activities and learning opportunities are influenced by the learning styles of a teacher (McCarthy, 1980). Adults working with young children need to have child development and educational training along with knowledge of positive guidance and developmentally appropriate practice principles. Berk (1985) found caregivers with college majors in child development demonstrate more responsive encouragement, provide indirect guidance, and encourage verbal skill development behaviors, and impose fewer restrictions on children. A solid child development foundation enabled students to combine curriculum, assessment, and management strategies with their

knowledge of how children of different age levels reason and learn (Elkind, 1989).

Purpose of the Study

The purpose of the study was to measure child development laboratory practicum students' knowledge of developmentally appropriate practice for toddlers through five-year old children while comparing and examining students' college majors of home economics and early childhood education, learning style, flexibility, beliefs, and values.

Research Questions

Six research questions were addressed within the study. The questions investigated included the following:

1. How much knowledge do students in the home economics and early childhood fields have of developmentally appropriate practice for toddlers through five-year old children at the start and conclusion of a practicum in child development course?
2. Is there a difference in students' knowledge of toddlers, three-year old, and four- and five-year old children?
3. Is there a difference in knowledge between students' studying home economics child development and early childhood education?
4. Is there a correlation between college students' type of learning style and their degree of knowledge of developmentally appropriate practice?

5. Is there a correlation between college students' flexibility and their degree of knowledge of developmentally appropriate practice?
6. What beliefs and values do students have regarding children, parents, and teaching roles?

Research Objectives

Six research objectives were included within the study. The objectives upon which the research was based included:

1. To measure and compare students' knowledge of developmentally appropriate practice for toddlers, 3-, 4-, and 5-year old children at the beginning and end of the child development practicum course.
2. To determine and compare students' knowledge of developmentally appropriate practice regarding toddlers, three-year old, and four- and five-year old children.
3. To determine if a difference between the knowledge of home economics child development and early childhood education students exists.
4. To determine whether or not a correlation between type of learning style and knowledge scores exists.
5. To determine whether or not a correlation between flexibility and knowledge scores exists.
6. To explore student beliefs and values regarding children, parents, and teaching roles.

Hypotheses

Five alternative hypotheses were proposed for this study. The hypotheses included:

1. Students' posttest scores on the DAPI will be significantly higher than the scores on the DAPI pre-test.
2. Students' knowledge of developmentally appropriate practice in regard to 4- and 5-year old children will be greater than their knowledge of toddlers and 3-year old children.
3. Students within a home economics discipline of study will have greater knowledge of developmentally appropriate practices than students within the early childhood education discipline of study.
4. Students having a global style of thinking will have a higher degree of knowledge as compared to those with an analytic style of thinking.
5. Students having a higher degree of flexibility and openness as compared to a conservative approach will have a higher degree of knowledge of developmentally appropriate practice.

Definition of Terms

In order to clarify frequently used terms within the study, eight definitions were provided. The terms include:

1. Accreditation Goals. The first accreditation goal is to help early childhood program personnel become involved in a process that will facilitate real and lasting improvements in the quality of the program serving young children. The second accreditation goal is to evaluate the quality of the program for the purpose of accrediting those programs that substantially comply with the criteria (interactions among staff and children, curriculum, staff-parent interaction, staff qualifications and development, administration, staffing, physical environment, health and safety, nutrition and food service, and evaluation) for high quality programs. (Bredekamp, 1991, p. 1)
2. Conservative. A conservative person is typically more cautious and possibly resistant in her/his approach to work and believes in routine, order, "tried and true" solutions, and stability. (Jorde Bloom, et al., 1991a, p. 77)
3. Developmentally Appropriate Practice. This is a two-dimensional concept of age appropriateness and individual appropriateness regarding young children. (Bredekamp, 1987, p. 2)
4. Flexible. A flexible person is typically more open-minded, dynamic, and change-oriented in her/his approach to work and believes in change, risk taking, and exploration of alternatives. (Jorde Bloom, et al., 1991a, p. 77)
5. Left-Brain Thinking. This describes a person who is likely to solve problems in a logical, sequential, and organized approach. (McCarthy, 1990, p. 30)
6. Right-Brain Thinking. This describes a person who is likely to wait and see what happens and be more intuitive in solving problems. (McCarthy, 1990, p. 30)
7. Toddler. This describes children from the time they are walking until they are between the ages of two-and-a-half and three years old. (Bredekamp, 1987, p. 34)
8. Young Children. This includes children from birth through age eight. (Bredekamp, 1987, p. iv.)

Limitations of the Study

Limitations of the study include the sample selection and some of the research instruments. The convenience sample was small and restricted to the number of students enrolled in a one semester course. While Jorde Bloom, et al. (1991b) developed instruments to track individual teacher growth and staff development over a period of time, the researcher's modified versions were used to collect data for a one-semester time period.

CHAPTER II: REVIEW OF LITERATURE

Overview of Literature

The review of literature focused on several areas related to the research topic. The sections of the review include: a historical overview of child development laboratories and campus child care programs from the 1920s to the present decade; developmentally appropriate practice; knowledge of child development; accreditation and quality; teachers learning styles; flexibility; beliefs and values. The research reviewed culminated in a summary and conclusion of the materials utilized by the researcher.

A Historical Perspective of Child Development Laboratories and Campus Child Care

Professionals in higher education are traditionally leaders in the field of research. Research promotes improvement in the quality of child care while furthering knowledge of child development principles. Research leads to change and improvement in the quality of campus child care. Campus child care was first established at the University of Chicago by John Dewey in 1896 (Keyes, 1990). University departments sponsored the half-day or all-day centers with all children arriving and departing at one time. Throughout the decades of the 1920s to the 1990s, centers were based upon a philosophy reflecting consensual areas of concern and need in child care. The following paragraphs provide an overview of the 1920s to the

present decade's challenges in regard to child care.

The objective basis of campus child care in the 1920s was to provide opportunities for child observation, teacher education, and parent education (Keyes, 1990). During the Depression and World War II, the decades of the 1930s and 1940s, college and university child care centers and war plants child care centers increased in number and were open for 24-hour periods. Several influences contributed to the focus of campus child care in the 1950s and 1960s. College and university programs were "innovative" and "compensatory" in an effort to support children from low-income families. The philosophy of the 1950s and the 1960s may be compared to current Head Start programs for economically disadvantaged children and families. The focus of the 1950s and the 1960s decades was due to the influences of Piaget, Bloom, and Bruner and Hunt, the poverty ramifications faced by families, and the civil rights movement.

Several variables came into consideration for campus child care during the 1960s and 1970s due in part to the redefining of the family structure and women's changing roles. Keyes (1990) cited the changing of family structures, increased student activism, affirmative action, and the women's movement as influential. Women graduates, faculty, and undergraduates contributed to increasing the number of

child care centers during these years (Horm-Wingerd, et al., 1991; Keyes, 1990).

Despite the influences of changing family structure and womens' roles, college and university sponsored child development laboratory programs decreased by 58% from 1964-1984 and many more were threatened with closure (Kasnic, 1986). Five major reasons cited for the decline of child development laboratories included: (1) financial; (2) retrenchment; (3) a decrease in enrollment of children and college students; (4) lack of space; and (5) political influences. Laboratory schools found it necessary to apply the following strategies to maintain existence: (1) enlist parental support; (2) raise tuition for families; (3) keep a waiting list of children to demonstrate need; (4) continue an active profile on campus; (5) maintain high visibility off campus; (6) develop and field-test practical, educational ideas; (7) publicize activities; and (8) make the laboratory school services essential to the undergraduate component.

Entering into the 1980s, an increased interest and re-emergence of campus child care occurred. Families experienced the lack of available, affordable, quality child care. The stress of inadequate child care may lead to increased lateness, absenteeism, and decreased productivity in the workplace (Keyes, 1990). The re-emergence of the need for child care was primarily due to increasing women,

especially mothers of infants and toddlers, in the workplace (Kamerman, 1986). In addition, child care became a prominent issue in the 1988 elections of politicians. (MacKinnon & King, 1988).

In 1993, the Child Care Information Exchange provided the Status Report on Children's Programs on Campus. Currently, there are over 1,800 child care facilities on or associated with college and university campuses in the United States. In a survey conducted by the National Coalition for Campus Child Care, Inc. (NCCCC), Child Care Information Exchange, the Wilson Marketing Group, and Software Inc. nearly half of the 1,800 campus child care programs showed preschool-age children are the majority served (97%) followed by toddlers (55%) (Child Care Information Exchange, 1993). Full-time care was offered by 73%, while 71% offer part-time care. In 70% of the colleges and universities parenting students were given priority for enrolling their children in programs. In reviewing accreditation by the National Association for the Education of Young Children (NAEYC) of campus child care programs, 33% were accredited while 25% were currently in the process of seeking accreditation (Child Care Information Exchange, 1993).

Developmentally Appropriate Practice

Meeting the National Association for the Education of Young Children's (NAEYC) criteria and guidelines for

developmentally appropriate practice in early childhood programs means having high quality child care. Teachers' knowledge and application of developmentally appropriate practices determines the degree of program quality (Snider & Fu, 1990). Through teacher support of play and investigation, children are able to learn new information and formulate new concepts. Bredekamp (1987) cited high quality early childhood programs by NAEYC's standards referred to a "safe and nurturing environment that promotes the physical, social, emotional, and cognitive development of young children while responding to the needs of families" (p. 1). NAEYC has been given support for the criteria by both the National Association of State Boards of Education (NASBE) and the National Association of Elementary School Principals (NAESP) (Kostelnik, 1993). Kostelnik (1993) cited NAEYC's criteria and guidelines as providing "an excellent resource for thinking about, planning, and implementing high quality programs for young children" (pp.73). Research conducted in regard to quality child care programs consistently cited the work of NAEYC's Developmentally Appropriate Practice in Early Childhood Programs Serving Children From Birth Through Age 8.

In 1962, the High/Scope Research Foundations's Ypsilanti Perry Preschool study was one of several longitudinal studies to examine the effects of early childhood education. The Ypsilanti study focused on 3- and 4-year old children,

who were classified in low socioeconomic brackets and at risk for school failure. (Weikart & Schweinhart, 1986). Children were placed in one of three curriculum models functioning in accordance with high quality criteria. Of the three programs, two were strongly based more on child-initiated philosophies resulting as the best of the three, compared to the remaining one which was primarily teacher-directed in approach. Long-term results yielded that an extremely effective way of bettering the life chances of disadvantaged children was through high-quality early childhood education (Weikart, et al., 1986). The results of a longitudinal study done by Howe (1990) may be compared. After using a sample population of 80 children and their families, Howe (1990) concluded that "children who entered low-quality child care as infants had the most difficulty with peers as preschoolers and were rated by their kindergarten teachers as more destructive" (p. 300). The results favored the two child-initiated approaches and concluded that "a high quality, preschool program must be based on child-initiated learning activities" (Weikart, 1986, p. 67). A vital component of developmentally appropriate practice was constituted by child-initiated, child-directed, and teacher-supported play (Fein & Rivkin, 1986).

Cassidy & Lancaster (1993) concluded "children can make a major contribution to the curriculum, but not the sole contribution" (p. 50). They proposed questions for

early childhood education teachers at the University of North Carolina at Greensboro's Child Care Educational Program to determine how appropriate practice should be implemented in the classroom. NAEYC's position statement and guidelines were used as a basis to draw conclusions. After following the University of North Carolina's curriculum for 6 months with teachers striving to employ age and stage developmentally appropriate practices, several teacher response patterns emerged during the process (Cassidy, et al., 1993). A summation of the patterns found teachers were the decision makers in the processes, always aware of children's input and assessing their own appropriate responses (Cassidy, et al., 1993).

Questions and concerns similar to those addressed by teachers in Cassidy & Lancaster's (1993) study were validated by Kostelnik's (1993) examination of NAEYC's developmentally appropriate practice criteria and guidelines. Kostelnik (1993) cited a "preoccupation with the details of developmentally appropriate practice as the basis for the concern of teachers" (p. 74). Rather than details, the essential meaning behind developmentally appropriate practice should be focused upon by child development and early childhood professionals. Looking at the meaning of developmentally appropriate practice rather than trying to apply specific details to classroom situations was found to be of greater value. According to

Kostelnik (1993), the basic ideas provided a common foundation for defining high quality early childhood programs. Knowledge of child development, more specifically knowledge of age and individual development levels of children, is a vital component for successfully applying and implementing developmentally appropriate practice.

Knowledge of Child Development

Knowledge of child development is essential in order for teachers of young children to understand the concept of developmentally appropriate practice. This belief is supported by David Elkind's (1989) statement: "There is a need for teacher training at the undergraduate level - not in traditional educational courses, but in child development" (p. 113). To work with children and their families, early childhood teachers need to have broad theoretical and practical knowledge of child development (Snider & Fu, 1990). Students who will work directly with children benefit from a college or university child development laboratory or child care center (Reed, 1990). Students enrolled in a multitude of study disciplines such as child development, early childhood education, physical education, special education, and child psychology, utilize such facilities at colleges and universities. With the current emphasis on developmentally appropriate practice, institutions of higher education must assist students to learn and practice this new educational

approach of developmentally appropriate practice (Mangione, 1992).

Furthermore, individuals with sound child development knowledge were better prepared and more apt to employ appropriate practices (Bredekamp, 1987; Elkind, 1989; Howe, Phillips, & Whitebook, 1992; Kostelnik, 1993). A result of child development knowledge enabled child development and early childhood professionals to accept age and individual difference in children and target possible special needs in children (Kostelnik, 1993). Kostelnik stated for those new to the field of early childhood education, NAEYC's guidelines increased their knowledge of the "fundamental nature of children" (p. 76). High quality in programs reflects knowledge of the environment and job satisfaction of teachers. Although knowledge of developmentally appropriate practice and child development is an integral part of working with children, other influential factors such as accreditation must be taken into account for quality programs.

Accreditation and Quality Child Care

Research was conducted by Pope and Stremmel (1992) on the relationship between the organizational environment and job satisfaction among child care teachers. Using Jorde Bloom's (1988) Early Childhood Job Satisfaction Survey and Early Childhood Work Environment Survey, 94 child care centers in Virginia comprised Pope and Stremmel's sample. The results of the study yielded higher ratings in

accredited centers than non-accredited centers in the staffing areas of decision-making, goal consensus, physical setting, and role clarity (Pope, et al., 1992). The environment provided insight to overall center quality and job satisfaction concerning individuals, their attitudes, and certain work characteristics. In regard to NAEYC accreditation, the relationship between environment and center quality should be noted. In sum, accreditation, as well as knowledge of child development and developmentally appropriate practice, is an indicator of quality programs. However, personal factors must be taken into account.

Learning Styles

Individual learning styles of early childhood teachers affect a center's learning environment for children. According to Dunn (1990), all individuals have learning styles that change with experience. Motivation to learn along with the skills for choosing the method of accomplishing learning were characteristic of self-directed teachers (Jorde Bloom, et al., 1991a). Individuals who were dependent on others for learning may have lacked motivation or the means to reaching their goals (Jorde Bloom, et al., 1991a).

Teacher selection of activities and learning conditions were also influenced by learning styles (McCarthy, 1980). Different approaches to learning included reflecting, observing, and the actual practice of skill

(Dunn, Beaudry, & Klavas, 1989). While some teachers preferred group learning, others chose individualistic learning. Perceptual preferences differed among individuals in that some were visual learners, and some auditory. Visual teachers selected formats including charts and graphs for a lecture, while brain-storming, debate, and group work is preferred by auditory learners. Teachers must have an awareness of the influence their words, actions, and learning styles have on their teaching and children's self concepts (White, 1993).

Learning styles are related to the two hemispheres of the brain. The brain is divided into two hemispheres which process information differently (McCarthy, 1990). Both the left (analytical) and right (global) hemispheres are equal in terms of whole brain functioning. Individuals depend on one half of the brain more than the other, especially when learning new information. The processing of the left hemisphere is systematic. Analysis, planning, sequencing, and step-by-step problem solving are characteristics of the left-mode. The right-mode involves a global, visual, and holistic approach. Patterns and connections are formulated by the right-mode and problems are solved by considering the whole situation. The right-mode relies upon intuition, beliefs, and opinions for thought processing. Neither the analytical nor the global style of thinking is right or wrong, but rather each allows for an understanding of

individual learning differences (Brandt, 1990; Dunn, 1990; Kelly, 1990; McCarthy, 1990; & O'Neil, 1990).

In addition to how individuals perceive situations, processing and assimilation of information influence learning styles. McCarthy's (1990) 4 MAT System encompasses two processing dimensions: (1) "Watching" and (2) "Doing". "Doers" learned through manipulation and apply what they have learned to future instances. "Watchers" had a tendency to stand back and observe while reflecting. McCarthy's 4 MAT System is based on the research and theories of Kolb, Jung, Piaget, Dewey, Bogen, Rico, Edwards, and Bradshaw and Nettleton. When the two dimensions of perceiving and processing are combined a 4-quadrant model is formulated. Four major learning styles are derived: (1) Imaginative Learners; (2) Analytic Learners; (3) Common Sense Learners; and (4) Dynamic Learners.

One's learning style may determine a preference for a director who allows independence, self-direction, and indirect guidance (Jorde Bloom, et al. 1991a). In addition to learning style, one's degree of flexibility and openness to change may influence teaching.

Flexibility and Openness to Change

Flexibility and openness to change are reflected in daily teaching routine. Order, routine, and stability were important to some teachers while others enjoyed change, risk-taking, and exploration (Jorde Bloom, et al., 1991a).

The degree of resistance or openness to change of a teacher was important to consider when planning new curriculum ideas or practices. Knowledge of individual flexibility and openness allow for directors or instructors to plan meetings or lectures accordingly.

Kirton (1976) categorized individuals by flexibility and openness: those who wanted to achieve a better product (adaptors) and those who wanted to achieve something different (innovators). The adaptors tended to adhere to precision and conformity while innovators approach tasks in unique and different methods (Kirton, 1976). A director's or instructor's knowledge of these characteristics may have assisted in explaining one's resistance and another's willingness to changing an aspect of the program.

When faced with pressure, the adaptive person and the innovative person would generally disagree on what measures to take and often times refuse to collaborate when that may have been more productive (Kirton, 1976). Innovative individuals viewed their adaptive counterparts as inflexible and submissive to authority. Adaptive individuals viewed innovators as lacking reason. The director or instructor needed to create an environment feasible for both types.

Beliefs and Values

Six different types of teachers were described in relation to beliefs and values in Ayers' The Good Preschool Teacher (1989). According to Jorde Bloom, et al. (1991a),

Ayers justified examining beliefs and values to better understand teacher practices. Directors and educators needed to pay close attention to teachers and prospective teachers to identify differences in beliefs and values (Jorde Bloom, 1992, Jorde Bloom, et al, 1991a).

By using active listening and reflection techniques, directors were able to assist teachers in identifying and verbalizing beliefs and values in their role as teachers (Jorde Bloom, 1992; Jorde Bloom, et al., 1991a). Beliefs may have been credited to one's upbringing or education (Jorde Bloom, et al., 1991a). Values leave a deep-seated impression on individual beliefs (Jorde Bloom, et al., 1991a). Identification of beliefs and values played an important role when developing a new curriculum and incorporating the philosophy of a center's staff (Jorde Bloom, et al., 1991a). An awareness of beliefs could shape one's behaviors or cause one to reflect upon behaviors.

Summary

The review of literature began with a historical background of child care with an emphasis on campus programs. Knowledge of developmentally appropriate practice and the importance of quality programs for young children were reviewed. Finally, learning styles, flexibility, beliefs, and values were examined to substantiate their relationship as influential in child care programs.

Conclusion

The historical overview of child care allows one to understand the issues of child care families and professionals were faced with from the 1920s to the present. The need for child care has continued to exist, but the challenges have varied. Looking to the future, it is projected that by the year 2000 there will be a 15% increase in children under the age of six whose families will need child care (Blank, 1986).

With the increasing need for child care, quality and knowledge of what constitutes quality are essential factors. Teaching child development concepts to prospective child development and early childhood education professionals while training them how to implement developmentally appropriate practice in their classrooms and programs will aid in ensuring quality for children. In addition to knowledge, prospective child development and early child education professionals must learn to identify and integrate individual learning styles, flexibility, values and beliefs as these also affect and influence interactions with children and their families. The study was conducted to measure the knowledge of developmentally appropriate practice and to compare and explore the influences of students' college majors of early childhood education and home economics child development, learning styles, degree of conservativeness or flexibility, learning styles, beliefs, and values.

CHAPTER III: METHODOLOGY

Chapter III includes the design of the study, the selected sample, and descriptions of the four research instruments. Following the instrumentation is the procedure for collecting the data. Finally, the data analysis is described.

Design of the Study

A quasi-experimental one-group pretest-posttest design was used for the study to measure knowledge of developmentally appropriate practice. Additionally, questionnaires were used to collect correlational data.

Sample

A non-probability convenience sample of 36 college students was utilized for the study. Selected subjects were students enrolled in the School of Home Economics Child Development Practicum course. Class ranks of the subjects varied among sophomore, junior, and senior levels. Students' disciplines of study were early childhood education or home economics.

Research Instrumentation

A multi-method approach was used to collect data. Four instruments were given to the subjects. The following categories describe each instrument in detail.

Developmentally Appropriate Practices Inventory

The Developmentally Appropriate Practices Inventory (See Appendix A) was adapted from the integrated components

of developmentally appropriate practice for toddlers, three-year olds, and four- and five-year olds from the National Association for the Education of Young Children (NAEYC) (Bredekamp, 1987). The intent of the DAPI was to measure knowledge of developmentally appropriate practice for toddlers, three-, four-, and five-year old children. Items were forced-choice with responses of Agree or Disagree. The DAPI includes 96 items divided into the categories of toddlers, three-year olds, and four- and five-year olds each having 32 items. A total of 48 appropriate and 48 inappropriate items were included. The three age categories comprised three equal-item number subscales of the instrument. Each of the 96 items was assigned one point with 96 being a perfect score on the DAPI. The items were scored by measuring the frequencies and percentages of correct responses.

After conducting a pilot test with a sample of 32 university child development laboratory practicum students, the DAPI was modified in several areas. The name of the instrument was changed from the Appropriate/Inappropriate Practices Rating Scale to the Developmentally Appropriate Practices Inventory because "inappropriate" denotes a negative connotation. Each item was refined to contain only one concept within the statement. Statements were re-worded to address the child development laboratory practicum student (i.e., "students" replaced "staff"). The instrument was shortened to include equal-item statements regarding

the three age groups of toddlers through 5-year olds.

Three instruments adapted from the NAEYC guidelines in other research supported the validity of the DAPI. These included: The Primary Teacher Questionnaire (Smith, 1992); The Classroom Practices Inventory (Hyson, Hirsh-Pasek, & Rescorla, 1990); and the Measure of Knowledge of Developmentally Appropriate Practices (Snider & Fu, 1990). To the researcher's knowledge, instruments using the NAEYC guidelines have not been previously tested in a forced-choice approach. Reliability coefficients (KR20 - Internal Consistency) were computed. Content and criterion referenced validity were present due to the fact that items were developed by professionals affiliated nation-wide with NAEYC.

Learning Styles Assessment

The Learning Style Assessment (LSA) was a modified version (See Appendix B) adapted from Jorde Bloom, et al. (1991b) and based on the work of Wonder and Donovan (1984), McCarthy (1980), Torrance (1979), and Dunn and Dunn (1978). Individual learning styles determine why certain learning experiences stimulate and interest some people while others' experiences are considered boring. The LSA examined styles of thinking from a right-brain/left-brain perspective. The LSA consisted of 20 forced-choice (a or b) items. Left-brain thinking is associated with "a" responses and reflects an analytic style of thinking. Right-brain thinking was

associated with "b" responses reflecting a global thinking style. An indicator for a strong preference of left-or right-brain thinking was a 10-point difference in scores favoring either "a" or "b" responses. A balance of both "a" and "b" indicated that the individual had an integrated style of thinking. The LSA was correlated with the DAPI scores by taking the number of "a" (analytical) responses as scores on the LSA. Reliability of the exact LSA was not provided by Jorde Bloom, et al. (1991b). However, reliability and validity of the LSA were established due to Jorde Bloom's instruments having been based on the work of Dunn & Dunn (1978, 1990), Kolb (1976, 1985; Perry, 1994) and McCarthy (1980, 1990). Research on these theories of learning styles has been conducted at more than sixty institutions of higher education and has been tested at grade levels three through fourteen (Dunn, 1990).

Flexibility Index

The Flexibility Index (See Appendix C) was a modified version of the assessment tool of Jorde Bloom, et al. (1991b). The intent of the Flexibility Index was to identify an individual's possible resistance to change. Twenty forced-choice items, beginning with "I generally..." required a response of "Yes" or "No". A flexibility profile could be charted from the responses. Profiles included a dynamic, change-oriented approach to work which was indicated when fewer than 6 "Yes"

answers were present. More than 6 "Yes" responses described a person who was more conservative, and possibly more resistant, to change. The Flexibility Index was correlated with DAPI scores by taking the total number of "Yes" responses as a score on the Flexibility Index. Reliability and validity of the Flexibility Index were not specified by Jorde Bloom, et al. (1991b).

Values Clarification

The Values Clarification instrument (See Appendix D) was directly adapted from the work of Jorde Bloom, et al. (1991b). Values and beliefs concerning children give a foundation for teaching philosophies. The Values Clarification assessment tool reflects attitudes and beliefs about children, parents, and classroom teaching roles. Qualitative data were obtained by completing eight sentences in Part I. In Part II subjects circled five traits or characteristics desired of children or of results from their preschool experience with the subjects. There were no right or wrong answers for this instrument. Responses were combined to formulate common themes. The frequency rates of themes were used to score the instrument. Reliability and validity were not stated by Jorde Bloom, et al. (1991b).

Procedure for Collecting Data

Permission was obtained from the child development laboratory staff prior to distributing research instruments to students. College students were briefed by the

researcher during a class meeting time on the first day of the practicum course. The briefing included instructions for completing each research instrument. Instruments, biodata forms (See Appendix E), and cover letters (See Appendix F) were placed in number coded envelopes. In addition, students entered their social security numbers for coding and scoring purposes. The researcher distributed the envelopes to students. Confidentiality of the students' responses was assured by the researcher. The researcher's telephone number was provided in the cover letter in the event that students had further concerns and/or questions. A date, time, and setting for the return was specified verbally and in the cover letter. The same researcher collected the instruments in the envelopes two days later during the regular meeting time of the course.

The second phase of data collection occurred one week before the conclusion of the semester with the same 36 students. Time frames and briefing procedures were similar to the first phase. Included in the envelopes were the DAPI and a cover letter. A date, time, and setting for the return were specified verbally and in the cover letter. The same researcher collected the final portion of the data two days later.

Data Analysis

Data were analyzed by Eastern Illinois University Academic Computing staff, a statistician using Statistics

with Finesse computer software program and hand-tabulation.
The data analysis tests for each hypothesis were as follows:

Hypothesis 1: To compare the total of student means on the DAPI pre- and posttest, one-tailed t-tests at the .05 level were done.

Hypothesis 2: To compare the subscale mean scores on the DAPI pre- and posttest, two repeated measures ANOVA were done along with one-tailed t-tests between each subscale.

Hypothesis 3: To compare the DAPI pre- and posttest scores of early childhood education and home economics child development students one-tailed t-tests were done.

Hypothesis 4: Pearson's product moment correlational test was used to compare the relationship of learning style and DAPI pre- and posttest scores.

Hypothesis 5: Pearson's product moment correlational test was used to compare the relationship of flexibility to DAPI pre- and posttests scores.

The Values Clarification qualitative data for objective six were recorded; themes were identified with the comments categorized according to the themes. The traits were hand-tabulated in order to determine the five traits selected most frequently.

CHAPTER IV: RESULTS AND DISCUSSION

The purpose of the study was to measure child development laboratory practicum students' knowledge of developmentally appropriate practice for toddlers, three-, four-, and five-year old children while comparing and examining the knowledge of students majoring in early childhood education and home economics along with students' learning styles, flexibility, and values. The results are reported according to the order of the research objectives. Of the 46 students enrolled in the child development laboratory practicum course, 36 students returned the questionnaires indicating a 78.6% return rate.

Knowledge of Developmentally Appropriate Practice for Toddlers, Three-, Four-, and Five-Year Old Children

The first research objective was to measure and compare students' knowledge of developmentally appropriate practice for toddlers, 3-, 4-, and 5-year old children at the beginning and end of the child development laboratory practicum course. The quality of child care is dependent upon teachers' knowledge and application of developmentally appropriate practice (Snider & Fu, 1990). Child-directed, teacher-supported play allows children to learn and integrate new information. Individuals who teach and care for young children must be adequately prepared for their roles. The Classroom Practices Inventory (Hyson, et al., 1990) is based on NAEYC's guidelines for developmentally

appropriate practice for 4- and 5-year old children, appeared to be a credible measure for exploring characteristics of child development and early childhood education programs, therefore lending support to utilizing the DAPI. For this research objective the Developmentally Appropriate Practice Inventory (DAPI) was administered as a pre-test and posttest. The 96-item DAPI was adapted from NAEYC's integrated components of developmentally appropriate practice for toddlers, 3-year old, and 4- and 5-year old children. Of the 96 items, 48 are appropriate and 48 are inappropriate in terms of NAEYC's guidelines.

Students' scores on the DAPI pre-test ranged from 44-80 ($M_1=72.25$, $SD=7.24$) out of a possible range of 0 to 96. This score indicated that all of the 36 students responded to 72.25 (75.3%) of the 96 statements in accordance with NAEYC's guidelines of developmentally appropriate practice for toddlers, 3-year old, and 4- and 5-year old children. The DAPI pre-test had a reliability coefficient (KR20 - internal consistency) of 0.74.

Scores on the DAPI posttest ranged from 53 to 83 ($M_2=74.33$, $SD=7.59$) out of a possible range of 0 to 96. Students responded to 74.33 (77.4%) of the 96 statements in accordance with NAEYC's guidelines of developmentally appropriate criteria for toddlers, 3-year old, and 4- and 5-year old children. The reliability coefficient (KR20 - internal consistency) for the DAPI posttest was 0.79.

A one-tailed t-test was computed to determine significance of the mean scores of the DAPI pre- and posttest, $t(36) = 1.10, .$ Although students scored higher on the posttest, the results were not significant at the .05 level. Therefore, the researcher failed to reject the null hypothesis of $H_0: M_1 > M_2 p < .05.$

Students' Scores on the DAPI Subscales: Toddlers, Three-Year Old Children, and Four- and Five-Year Old Children

The second research objective was to determine and compare knowledge of developmentally appropriate practice among three age groups: (1) toddlers; (2) three-year old children; and (3) four- and five-year old children. Preschool children are the majority (97%) served in university programs with toddlers being the second largest group (55%) (Child Care Information Exchange, 1993). Mothers of young children, especially toddlers, account for part of the increase in women returning to the work force (Kamerman, 1986). Developmentally appropriate practice includes knowledge of the various age and individual characteristics of children such as toddlers, 3-, 4-, and 5-year old children (Bredenkamp, 1987). To measure and compare knowledge of the age groups, the DAPI was divided into three 32-item subscales. The range for each subscale was 0 to 32.

On the DAPI pre-test subscales, students' scores ranged as follows: (1) toddlers: 17 to 28 ($M_1 = 23.08, SD = 2.42$); (2) three-year old children: 12 to 28 ($M_2 = 22.72, SD = 2.87$); and

(3) four- and five-year old children: 11 to 31 ($M_3=26.36$, $SD=3.89$) (See Table 1). A repeated measures ANOVA was conducted to determine the significance of the 3 subscale scores. The DAPI pre-test score of the 4- and 5-year old subscale was significantly higher than the toddler subscale and the 3-year old subscale scores ($F=24.08$, $p<.0001$). In addition, two separate one-tailed t-tests were computed. The 4- and 5-year old subscale scores were significantly higher than the toddler subscale scores [$t(36) = -5.03$, $p<.0001$] and the 3-year old subscale scores [$t(36) = 3.64$, $p<.0001$]. Therefore, the researcher rejected the null hypotheses of $H_0: M_1 > M_3$ $p<.0001$ and $H_0: M_2 > M_3$ $p<.0001$.

Table 1
DAPI Pre-test and Posttest Subscale Mean Scores

	Frequencies	SD
<u>DAPI Pre-test</u>		
Toddlers	23.08	2.42
Three-Year Old Children	22.72	2.87
Four- and Five-Year Old Children	26.36	3.89
<u>DAPI Posttest</u>		
Toddlers	23.47	2.61
Three-Year Old Children	23.56	3.17
Four- and Five-Year Old Children	27.31	3.41

On the DAPI posttest subscales, students' scores ranged as follows: (1) toddlers: 17 to 27 ($M_1=23.47$, $SD=2.61$); (2) three-year old children: 17 to 30 ($M_2=23.56$, $SD=3.17$); and (3) four- and five-year old children: 18 to 31 ($M_3=27.31$, $SD=3.41$). A repeated measures ANOVA was computed to determine the significance of the 3 posttest subscale scores. The DAPI posttest scores of the 4- and 5-year old subscale were significantly higher than the toddler and 3-year old subscale scores ($F=37.19$, $p<.0001$). In addition, two separate one-tailed t-tests were computed. The 4- and 5-year old subscale scores were significantly higher than the toddler subscale scores [$t(36) = -7.37$, $p<.0001$] and the 3-year old subscale scores [$t(36) = 7.81$, $p<.0001$]. Therefore, the researcher rejected the null hypotheses of $H_0: M_1 > M_3$ $p<.0001$ and $H_0: M_2 > M_3$ $p<.0001$.

Comparing and Determining Early Childhood Education and Home Economics Child Development Students' DAPI Scores

The third research objective was to determine if a difference exists between knowledge of students studying early childhood education and home economics-child development. In a study by Snider & Fu (1990), results indicated that the most influential factors on knowledge of developmentally appropriate practice were academic degrees in child development and early childhood education, the number of child development and early childhood education courses taken, and teaching experience. Assessing knowledge

of developmentally appropriate practice is necessary while considering these influential factors. Of the 36 students, 19 students were early childhood education majors and 17 students were home economics majors.

Early childhood education students' (n=19) scores on the DAPI pre-test ranged from 44 to 80 ($M_1=70.63$, $SD=9.12$) out of a possible 0 to 96 (See Table 2). This score indicated that early childhood education students responded to 70.63 (73.54%) of the 96 statements in accordance with NAEYC's guidelines of developmentally appropriate practice for toddlers through five-year olds. A reliability coefficient (KR20 - internal consistency) for the DAPI pre-test of early childhood education majors was 0.82.

The home economics students' (n=17) scores on the DAPI pre-test ranged from 65 to 80 ($M_2=74.06$, $SD=3.83$) out of a possible 0 to 96 (See Table 2). This indicated that home economics students responded to 74.06 (77.19%) of the 96 statements in accordance with NAEYC's guidelines of developmentally appropriate practice for toddlers through five-year olds. A low reliability coefficient (KR20 - internal consistency) of 0.19 was obtained with no evident explanation.

The pretest DAPI scores indicated that home economics students scored higher ($M_2=74.06$) than early childhood education students ($M_1=70.63$). A one-tailed t-test determined that although scores approached significance

Table 2

DAPI Pre-test and Posttest Mean Scores of Early Childhood
Education and Home Economics Students

	Frequencies	Percentages	SD
<u>DAPI Pre-test Scores</u>			
Early Childhood Education	70.63	73.54%	9.12
19			
Home Economics	74.06	77.19%	3.83
17			
Total	72.25	75.3%	7.24
36			
<u>DAPI Posttest Scores</u>			
Early Childhood Education	75.53	78.68%	7.52
19			
Home Economics	73.00	76.04%	7.67
17			
Total	74.33	77.4%	7.59
36			

($p < .0797$), home economics students did not score significantly higher [$t(17,19) = -1.4386$] on the DAPI pre-test than early childhood education students. The researcher failed to reject the null hypothesis of $H_0 = M_1 > M_2$ at $p < .05$.

Early childhood education students' scores on the DAPI posttest ranged from 60 to 84 ($M_3 = 75.53$, $SD = 7.52$) out of a possible range of 0 to 96. This score indicated that early

childhood education students responded to 75.53 (78.68%) of the 96 statements in accordance with NAEYC's guidelines of what constitutes developmentally appropriate practice for toddlers, 3-, 4- and 5-year old children. A reliability coefficient (KR20 - internal consistency) of 0.78 was obtained. Early childhood education students' mean score of 75.53 on the DAPI posttest increased from the pre-test score of 70.63. A one-tailed t-test was computed to analyze the difference of early childhood education students' pre- and posttest mean scores, $t(19) = 1.61$. The results indicated that although early childhood education students' scores approached statistical significance ($p < .0631$), scores on the DAPI posttest were not significantly higher than the early childhood education student's pre-test scores at the .05 level.

The home economics students' scores ranged from 53 to 80 ($M = 73.00$, $SD = 7.67$) out of a possible range of 0 to 96. This score indicated that home economics students responded to 73.00 (76.04%) of the 96 statements in accordance with NAEYC's guidelines of developmentally appropriate practice for toddlers through 5-year old children. A reliability coefficient (KR20 - internal consistency) of 0.79 was obtained. Home economics students' mean score of 73.00 on the posttest was lower than the pre-test score of 74.06. Early childhood students' posttest mean score of 75.53 was higher than the home economics students' posttest mean score

of 73.00. A one-tailed t-test determined that early childhood education students did not score significantly higher than home economics students [$t(19,17) = 0.9965$]. Therefore, the researcher failed to reject the null hypothesis.

Learning Style and DAPI Knowledge Scores

The fourth research objective was to determine whether or not a correlation between type of learning styles and DAPI knowledge scores exists among students. Individual learning styles are not necessarily right or wrong but knowledge of how students learn allows for a focus on strengths and improving upon weaknesses (Spinner, 1992). In addition, knowledge of learning styles can provide a premise for curriculum development, implementation, and evaluation (Perry, 1994).

By separately summing the number of "a" and "b" responses on the 20-item Learning Styles Assessment it was determined if students fell into one of three categories: (1) analytical; (2) global; and (3) integrated. The analytic category included a sum of 15-20 "a" responses; the global category included a sum of 15-20 "b" responses; and the integrated category had a sum of < 15 "a" or "b" responses. The research hypothesis stated that students with a global style of thinking would score higher on the DAPI pre- and posttest than students with an analytical or integrated style of thinking.

TABLE 3
A CORRELATION OF STUDENTS' LEARNING STYLE & DAPI SCORES

Student Posttest	Learning Style Score	DAPI Pre-Test Score	DAPI Score
1	13	73	60
2	14	73	79
3	10	78	78
4	13	79	83
5	13	52	78
6	14	72	74
7	11	80	84
8	12	72	77
9	13	78	66
10	10	63	63
11	13	70	79
12	13	69	74
13	14	74	74
14	13	76	60
15	15	69	82
16	12	77	79
17	13	69	83
18	11	74	66
19	11	44	84
20	11	78	75
21	15	78	74
22	7	75	80
23	12	77	80
24	13	72	77
25	13	80	77
26	12	72	60
27	14	77	53
28	16	73	78
29	13	74	77
30	10	72	73
31	10	74	76
32	17	70	62
33	12	69	80
34	10	76	73
35	13	77	76
36	13	65	70

N=36

$\bar{X} = 12.47$

$\bar{X} = 72.25$

$\bar{X} = 74.33$

$r = 0.0160$

$r = -0.2175$

Analytical Students n=4

Global Students n=0

Integrated Students n=32

After hand-tabulating the "a" and "b" totals, the following results were obtained. Thirty-two students had an integrated style; four students had an analytical style; and none of the students had a global style. However, to compute the statistical correlation of the Learning Styles Assessment, the categorical sums were converted into single sets of scores for each student, thereby changing the nominal level of data to interval level. Scores ranged from 7 to 17 out of a possible range of 0 to 20 (0 = non-analytical; 20 = highly analytical) (See Table 3).

Pearson's product moment correlational test was used to determine if a relationship between global learning style and DAPI scores existed. The statistical test showed no correlation between global learning style and DAPI pre-test scores ($r=0.0160$). A correlation did exist between global learning style and DAPI posttest scores ($r=-0.2175$). This relationship was consistent with the research hypothesis but not significant at the .05 level. Therefore, the researcher failed to reject the null hypothesis.

Degree of Flexibility and DAPI Knowledge Scores

The fifth research objective was to determine whether or not a correlation between students' degree of flexibility and DAPI knowledge scores existed. Teachers' degree of openness or resistance to change may be of useful consideration for curriculum development or teaching practices (Jorde Bloom, et al., 1991a). Kirton (1976)

described two types of individuals by flexibility and conservativeness. Conservative students were comparable to adaptors, individuals who were more precise and conforming. Flexible students may be compared to innovators, who approach tasks with unique methods. The Flexibility Index identified students as flexible or conservative.

By separately summing the number of "a" and "b" responses on the 20-item Flexibility Index, it was determined if students were "conservative" or "flexible" category. If students had fewer than 6 "a" (yes) responses, then the "flexible" category applied. More than 6 "a" (yes) responses placed students in the "conservative" category. The research hypothesis stated "flexible" students would score higher on the DAPI pre- and posttest than "conservative" students. The "a" and "b" responses were hand-tabulated by the researcher to obtain the following results. Thirty-three students were "conservative" and two students were "flexible". One student did not respond to the Flexibility Index (See Table 4). To compute statistical correlation the Flexibility Index categorical sums were converted into single sets of scores. Again, the data were changed from a nominal level to an interval level of data. Scores ranged from 5 to 16 out of a possible range of 0 to 20 (0 = non-conservative; 20 = highly conservative).

Pearson's product moment correlational test determined if a relationship between degree of flexibility and

TABLE 4

A CORRELATION OF STUDENTS' FLEXIBILITY INDEX & DAPI SCORES

Student Posttest	Learning Style Score	DAPI Pre-Test Score	DAPI Score
1	5	73	60
2	7	73	79
3	9	78	78
4	8	79	83
5	9	52	78
6	9	72	74
7	10	80	84
8	9	72	77
9	6	78	66
10	12	63	63
11	9	70	79
12	11	69	74
13	11	74	74
14	16	76	60
15	14	69	82
16	14	77	79
17	15	69	83
18	15	74	66
19	14	44	84
20	5	78	75
21	6	78	74
22	9	75	80
23	10	77	80
24	11	72	77
25	6	80	77
26	11	72	60
27	8	77	53
28	9	73	78
29	7	74	77
30	7	72	73
31	9	74	76
32	8	70	62
33	13	69	80
34	16	76	73
35	14	77	76
N=35	$\bar{X} = 10.06$	$\bar{X} = 72.25$ $r = -0.2589$	$\bar{X} = 74.33$ $r = 0.1284$

Flexible Students n=2

Conservative Students n=33

No response n=1

DAPI scores existed. The statistical test showed that a negative correlation between degree of conservativeness and the DAPI pre-test scores ($r = -0.2589$) did exist. The correlation was consistent with the research hypothesis but not significant at the .05 level. Therefore, the researcher failed to reject the null hypothesis. A correlation did not exist between degree of flexibility and DAPI posttest scores ($r = 0.1284$).

Students' Beliefs and Values

The sixth and final research objective was to explore students' beliefs and values in regard to children, parents, and teaching roles. An awareness of one's beliefs and values assists in understanding teacher practices (Jorde Bloom, et al., 1991a). Identifying beliefs and values may be important to curriculum development and integrating the philosophy of the staff. The Values Clarification tool consisted of two parts. Part I asked students to complete eight open-ended statements; the responses were grouped into common themes. Those answers not fitting into a common theme were omitted. Part II included 27 traits the students would like children to have as a result of their preschool experience. The results were hand-tabulated.

The qualitative data from statements were grouped by themes. Frequencies were not always equivalent to the sample 36 due to multiple responses and omission of a response not fitting with the themes. The results are

presented by stating the open-ended questions with the emergence of themes and the frequency that the theme was identified by the students.

1. "I think children are generally": eager to learn (n=18, 50%); cute, loveable, sweet (n=13, 36.1%); active, energetic (n=8, 22.2%); and happy (n=5, 13.9%).
2. "When children are unhappy, it's usually because": they are frustrated or things do not go their way (n=18, 50%); they are mistreated (n=7, 19.4%); they want attention (n=6, 16.7%); and they are physically sick (n=6, 16.7%).
3. "I get angry when children": are rude, talk disrespectfully (n=12, 33.3%); deliberately misbehave (n=8, 22.2%); are abused or neglected (n=8, 22.2%); and do not follow directions or rules (n=6, 16.7%).
4. "The most important thing a teacher can do is": foster self-confidence in children (n=14, 38.9%); love and support children (n=14, 38.9%); help children learn (n=10, 27.8%); and to be a respectful, trustworthy friend (n=8, 22.2%).
5. "Children should not": harm themselves or others (n=14, 38.9%); and be forced to compete/conform (n=12, 33.3%).
6. "All children are": individual, unique (n=18, 50%); and able, excited, and ready to learn (n=16, 44.4%).
7. "I wish parents would": be more actively involved and supportive (n=30, 83.3%); and provide more positive guidance, manners, and/or morals (n=6, 16.7%).

8. "When parents": abuse/neglect their children (n=17, 47.2%); take interest in their children and/or teachers (n=12, 33.3%) "I feel": angry, sad (n=17, 47.2%); and happy, motivated (n=12, 33.3%), respectively.

From the list of 27 traits, the subjects were asked to select five. Subjects most frequently chose the following five characteristics which they would like children to be or to have from their preschool experience: 1. Confident (n=26, 72.2%); 2. Respectful (n=16, 44.4%); 3. Proud (n=14, 38.9%); 4. Open-minded (n=14, 38.9%); and 5. Creative (n=13, 36.1%).

BOON HIGGINS

CHAPTER V: SUMMARY, CONCLUSION, & RECOMMENDATIONS

Summary

The purpose of the study was to measure child development laboratory students' knowledge of developmentally appropriate practice for toddlers, 3-, 4-, and 5-year old children while comparing and examining students' college majors of early childhood education and home economics, learning style, degree of flexibility, beliefs, and values. The Developmentally Appropriate Practices Inventory (DAPI) was developed using NAEYC's guidelines of developmentally appropriate practice for toddlers, 3-, 4-, and 5-year old children. The DAPI was a pre-test/posttest measure of students' knowledge at the beginning and end of a child development laboratory practicum course. The DAPI consisted of three 32-item subscales relating to toddlers, 3-year old children, and 4- and 5-year old children.

Three additional instruments were utilized: the Learning Styles Assessment (LSA), the Flexibility Index, and the Values Clarification. The Learning Styles Assessment identified students' learning styles as analytical, global or integrated. Each student's learning style was correlated with DAPI pre- and posttest scores to determine whether or not a correlation existed. The Flexibility Index identified students as flexible or conservative and possibly more resistant to change. Students' degree of conservativeness was then correlated with DAPI pre- and posttest scores

to determine whether or not a correlation existed. The Values Clarification tool explored students' beliefs and values regarding children, parents, and teaching roles through open-ended responses and selection of desired traits in children.

The procedure for collecting data was conducted in two phases. Phase one occurred at the beginning of the semester in the laboratory practicum course. At this time students were given the DAPI, Learning Styles Assessment, Flexibility Index, and the Values Clarification tool. Phase two occurred at the end of the semester. Students were given the DAPI posttest. The DAPI, Learning Styles Assessment, and Flexibility Index were analyzed by Eastern Illinois University Academic Computing staff and a statistician using Statistics with Finesse computer software program.

The 96-item DAPI showed students' mean score to be 72.25 (75.3%) on the pre-test. Posttest DAPI scores increased to a mean score of 74.33 (77.4%). Students' knowledge of developmentally appropriate practice for 4- and 5-year old children was greater than their knowledge of toddlers and 3-year old children on the DAPI pre- and posttest. On the DAPI pre-test students' mean subscale scores of a possible 32 were: toddlers 23.08; 3-year olds 22.72; and 4- and 5-year olds 26.36. On the DAPI posttest students' mean subscale scores out of 32 were: toddlers 23.47; 3-year olds 23.56; and 4- and 5-year olds: 27.31.

Early childhood education students' average DAPI pre-test score was 70.63 (73.54%) compared to home economics child development students' average score of 74.06 (77.19%). Early childhood education students' average posttest score increased to 75.53 (78.68%) and home economics students' average posttest score decreased to 73.00 (76.04%).

The Learning Styles Assessment showed five students to have a strong preference for an integrated style of thinking which included both an analytical and global perspective. Four students had a strong preference for an analytical style of thinking. None of the 36 students had a strong preference for a global style of thinking. The remaining 27 students did not have a strong preference for one particular style of thinking. However, all but one of the remaining 27 students chose more analytical responses than global responses. There were no significant correlations between learning styles and knowledge of developmentally appropriate practice in the study. The Flexibility Index showed students to be predominantly conservative and possibly more resistant to change (n=33, 94.3%). Two students fell into the category of flexible and more open to change. There were no significant correlations between degree of flexibility and knowledge of developmentally appropriate practice.

Regarding students' beliefs and values, 50% of the students thought children were eager to learn. Students

perceived children's unhappiness to be related to frustration and not getting a desired outcome (50%). Disrespect and rudeness angered 33.3% of the students. Fostering self-confidence and providing love and support were the most important things a teacher could do for children (38.9%). Causing harm to oneself and/or others were cited as things children should not do by 38.9% of students. "All children" were seen as individual and unique (50%). Students wanted to see more active involvement and support from parents (83.3%). Anger and sadness were felt if parents abused and/or neglected their children (47.2%). The five most desired traits students hoped children had because of their preschool experience were: confidence, respect, pride, open-mindedness, and creativity.

Conclusions

Both early childhood and home economics students began and ended the child development laboratory practicum course with a slightly above average degree of knowledge regarding developmentally appropriate practice for toddlers, 3-, 4-, and 5-year old children. These results may be interpreted in two ways. First, students are pre-professionals, not yet highly experienced and qualified in their disciplines of study. Their knowledge of what is best for children regarding developmentally appropriate practice may improve with time, increased experience, and further related course work. A second interpretation may be that students'

philosophies in relation to children could differ in regard to what constitutes appropriate and inappropriate practice. NAEYC's guidelines of developmentally appropriate practice are not necessarily right or wrong. Rather, the guidelines serve as one approach and philosophy for teaching and working with young children.

Learning style, degree of flexibility, beliefs, and values are highly individualized personal traits. Awareness of one's own learning style and those of students could assist in course curriculum development while identifying the most effective teaching strategies. Students were primarily conservative and possibly more resistant to change as opposed to flexible and more open to change. Degree of flexibility or conservativeness may be dependent upon the environment and the situation. The Values Clarification tool established that personal beliefs and values require experience, insight, and knowledge. Students may have strengthened or altered their beliefs and values as a result of direct experience working with children. Students' beliefs and values clarification responses provided a means for exploring students' thoughts and feelings regarding children, parents, and teaching roles. Knowledge of beliefs and values could possibly assist in predicting students' approaches to children and in setting personal goals.

Recommendations

In an effort to improve and increase the quality of care and education for children and the knowledge of pre-professionals working with children, eleven suggestions have been formulated. In reviewing the findings of this study, the researcher recommends the following educational suggestions:

1. The child development laboratory course needs to continue and expand instruction regarding developmentally appropriate practice for young children utilizing NAEYC materials.
2. The child development laboratory course and related courses need to place more emphasis on education concerning toddlers due to the number of infants and toddlers in child care.

In addition, the following research suggestions are recommended:

3. The DAPI may be expanded to include an infant subscale for students enrolled in an infant development laboratory practicum course.
4. Direct observation and recording of students' application practices and skills in the infant or child development laboratory may be compared to DAPI knowledge scores.
5. A comparison of the knowledge of developmentally appropriate practice may be done with students enrolled

in the laboratory practicum and students not required to enroll in the practicum but who are or will be working with young children.

6. A comparison of learning style and flexibility to students' selection of activities for children may be done.
7. Part one of the Values Clarification tool may be expanded and modified to further explore beliefs and values regarding children, parents, and teaching roles.
8. Part two of the Values Clarification may be expanded to include two lists of traits. One list would still apply to children and one would apply to the student respondent. The two may be compared to determine if a correlation exists.
9. The study may be replicated utilizing a larger sample.
10. The study could explore a possible correlation between grade level (sophomore, junior, or senior) and DAPI scores.
11. The study could explore a possible correlation between parenting/non-parenting students and DAPI scores.

In conclusion, the researcher strongly recommends further study and integration of developmentally appropriate practice within the university setting. More education on toddlers is needed because of the growing number of infants and toddlers in child care. Observing students' interactions with young children may provide further insight

into students' knowledge and the application of developmentally appropriate practice. Research may include students in other disciplines of study which work with children and families to explore knowledge of developmentally appropriate practice. Students' learning style and degree of flexibility may be compared to their selection and implementation of activities. Students' beliefs and values may be further examined through expanding the Values Clarification instrument. Future studies may be conducted with a larger sample. Finally, future studies may explore potential correlations between grade level and DAPI scores; and parenting/non-parenting students and DAPI scores. With more research and knowledge, the quality of child care and education will address the demands and challenges facing the children in the year 2000 and thereafter.

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Appendix A
Developmentally Appropriate Practice Inventory
(DAPI)

PART II

After reading through each of the items , indicate whether or not you agree or disagree that the statement reflects a developmentally appropriate practice for young children ages 2- to 5-years old.

Blacken the circle on the BLUE scantron sheet to correspond with A=Agree and B=Disagree.

1. Adults permit children to keep their own favorite objects and provide limited options from which children may choose what they prefer to eat or wear.
2. Maximum group size is 18 with 1 adult for no more than 10 toddlers.
3. Activities are always on a strict time schedules to avoid an unpredictable day.
4. When children fight over the same toy, the adult provides another like it or removes the toy.
5. Toddlers are helped by a teacher to produce a product and follow the model of the teacher.
6. Time schedules are dictated more by children's needs than by adults.
7. College students should come to the child development laboratory even when ill.
8. Toddlers are expected to patiently wait at the table until snack is ready.
9. Child care staff do not detect normal changes in children's patterns.
10. Staffing patterns require toddlers to relate to several different adults who may not be familiar.
11. Staff needs to talk with parents only at conferences.
12. Adults only say "No" when the prohibition relates to children's safety.
13. The toddler environment does not need to provide private spaces for children.
14. Toddlers indoor space is small since they are just learning to use their bodies.
15. Adults do not expect toddlers to produce a finished art product.

16. Food is ready for toddlers before children are called for snacks
17. The toddler environment contains private spaces with room for no more than 2 children.
18. Toddler's toys can be carried and moved about in the environment as children choose.
19. Staff and college students are in good health and take precautions not to spread infection.
20. Several toddlers may have their diapers changed on the same surface.
21. Staff avoids controversial issues with parents rather than resolving them.
22. Toddler's names are used to label every personal item.
23. Adults discourage toddlers from carrying around blankets or security toys.
24. Toddler disputes should be ignored in the hope that the problem will pass.
25. Toddlers need to be told "No" often.
26. Toddlers may share sleeping quarters in shifts.
27. Adults should remember to restrict toddler's toys in certain areas like dramatic play or blocks.
28. Adults are aware of toddler's changes in behaviors that might indicate illness or allergies.
29. Diaper areas are changed and sanitized after each diaper change.
30. Parents are always viewed as the child's primary source of affection and care.
31. Parents and staff talk on a daily basis to share information about the child.
32. Staff have previous training in child development and early childhood education specific to the toddler age group.
33. Adults should assume three-year olds will get over fears.
34. Adults should perform tasks for three-years olds regardless of whether or not they are capable of performing themselves.

35. Adults recognize that three-year olds sometimes resort to toddler behaviors of thumb-sucking and baby talk.
36. Adults expect that 3-year olds will do activities together with friends or share toys often.
37. Adults need to allow 3-year olds to help pour their own drinks and set the table.
38. Adults should not repeat a task over and over again when 3-year olds persist.
39. Adults should limit language and music activities because children sometimes become too silly or loud.
40. Adults provide plenty of coloring books and pre-cut shapes for 3-year olds to use.
41. For the majority of the time, adults attempt to maintain quiet in the classroom of 3-year olds.
42. Adults know that 3-year old's appetites decrease and therefore encourage small portions of food.
43. Large amounts of uninterrupted time for 3-year old children should be provided for self-chosen tasks and activities.
44. For 3-year olds, blocks and dramatic play should be restricted to certain areas of the room.
45. Adults guide 3-year olds to take periodic naps or rest times throughout the day.
46. Adults encourage children to take turns and share but do not always expect 3-year old children to give up items.
47. Adults should limit large muscle activity to a short outdoor recess time for 3-year olds.
48. Adults know 3-year olds do not usually understand or remember rules.
49. Adults provide plenty of materials and time for 3-year olds to explore and learn about their environment.
50. Adults recognize that talking may be more important than listening to 3-year olds.
51. Adults should insist that 3-year old children pick up all of the toys every time.

52. Adults provide many opportunities for three-year olds to play by themselves, next to another child, or with one or two other children.
53. Disciplinary need to accompany meal times for 3-year olds.
54. Nap time for 3-year olds is a must.
55. Three-years olds are expected to sit quietly and listen to a story.
56. Adults provide many experiences and opportunities to extend 3-year old children's language and musical abilities.
57. Three-year olds need to remember and abide by a list of classroom rules.
58. Adults recognize that 3-year olds often overestimate their newly developed physical powers and will try activities that are unsafe or beyond their ability.
59. Adults do not expect representational art products from 3-year olds.
60. Adults know three-year olds require the same amount of supervision that 4- to 5-year old children do-equal amounts are sufficient.
61. Adults provide plenty of space and time indoors and outdoors for 3-year olds with adults close by to offer assistance.
62. Adults plan experiences to alleviate three-year old's fears.
63. Adults allow three year olds to do what they are capable of and what they want to do themselves.
64. Adults know 3-year olds should not behave immaturely or play baby.
65. Children's worth is measured by how well they perform to on standardized tests.
66. Large group teacher-directed instruction is used most of the time for 4 & 5 year olds.
67. Four- and five-year old children work best individually at desks or tables most of the time.
68. Memorization is highly encouraged for 4- and 5-year old children.

69. Each 4- and 5-year old is viewed as a unique person with an individual pattern of timing of growth and development.

70. Activities are designed to develop positive feelings toward learning.

71. Reading and writing are stressed for 4- and 5-year old children.

72. Teachers should spend a great deal of time enforcing the rules for 4- and 5-year olds.

73. Children work individually or in small informal groups most of the time at age 4 and 5.

74. All 4- and 5- year olds are expected to perform the same tasks and achieve the same skills.

75. Teachers accept that there is often more than one right answer.

76. Teachers facilitate self-control through modeling and encouragement.

77. Four- and five-year olds should talk with people to solve interpersonal problems.

78. Children are provided many opportunities to see how reading and writing are useful before they are instructed in letter names, sounds, and word identification.

79. Opportunity for large muscle activity for four and five year olds is limited to avoid interfering with instructional time.

80. Group size for 4- and 5- year olds can be the same for those in elementary grades.

81. Children's natural curiosity is used to motivate them to become involved in learning activities.

82. Four- and five- year olds should be strongly encouraged to develop memorization skills.

83. Teachers are qualified to work with 4- and 5-year olds through college-level preparation in Early Childhood Education or Child Development and supervised experience with this age group.

84. Learning about math, science, and health are all integrated through meaningful activities for 4- and 5-year olds.

85. Outdoor activity is planned in part daily so children can express themselves freely and loudly.
86. A variety of art media is available for creative expression for 4 and 5 year olds.
87. Four- and five-year olds are in groups of no more than 20 children with 2 adults.
88. Teachers with no specialized training or supervised experience working with 4- and 5-year olds are viewed as qualified because they are state certified, regardless of the level of certification.
89. Eligible age children are denied entry to kindergarten because they are judged not ready on the basis of inflexible expectations.
90. Psychometric tests are used as the sole criterion to prohibit entrance to the program or to recommend that children be retained or placed in remedial classroom.
91. Teachers work in partnerships with parents.
92. Decisions that have a major impact on children are based mostly on observations by teachers and parents instead of single test scores.
93. In public schools there is a place for every child of legal entry age, regardless of the developmental level of the child.
94. Art for 4- and 5-year olds should consist primarily of pre-drawn forms.
95. Children ages 4 and 5 are required to participate in all activities in order to receive rewards like stickers.
96. Teachers primary conversation with 4- and 5-year olds parent should primarily emphasize problems or conflicts.

Appendix B
Learning Styles Assessment

BRUNNEN 1000000 1

Blacken the appropriate circle on the GREEN scantron sheet with a No. 2 pencil.

1. In a problem situation do you...
 - a. write and consider all alternatives, then pick the best?
 - b. wait to see if the situation will right itself?
2. Do you think daydreaming is...
 - a. a waste of time?
 - b. a viable tool for planning your future?
3. In making decisions, are you more apt to...
 - a. rely on facts, information, and logic?
 - b. rely on gut feelings and intuition?
4. In planning a typical day, do...
 - a. make a list of all the things you need to do?
 - b. just let it happen?
5. With respect to organization, do...
 - a. have a place for everything and a system to keep things organized?
 - b. feel comfortable with clutter?
6. Do you learn new sports and athletic skills by...
 - a. learning the sequence and repeating the steps mentally?
 - b. imitating, getting the feel of the sport?
7. Do you express yourself well verbally?
 - a. yes
 - b. no
8. Are you goal oriented?
 - a. yes
 - b. no
9. To remember directions, names, or news items, do you...
 - a. write down notes to help you remember?
 - b. visualize the information?

10. Do you remember faces easily?
 - a. yes
 - b. no
11. In attending meetings and keeping appointments, are you...
 - a. on time?
 - b. often late?
12. In an argument, do you tend to...
 - a. find an authority to support you point?
 - b. become animated or talk louder?
13. Do you have a sense of how much time has passed without looking at you watch?
 - a. yes
 - b. no
14. Do you gesture to...
 - a. make a point?
 - b. express your feelings?
15. In preparing yourself for a new or difficult task, do you...
 - a. prepare notes and gather data regarding the task?
 - b. visualize yourself accomplishing the task effectively?
16. Which handwriting position do you prefer?
 - a. right handed
 - b. left handed
17. When you clasp your hands in your lap, which thumb is on top?
 - a. left
 - b. right
18. With respect to mood shifts, do you...
 - a. experience almost no mood changes?
 - b. experience frequent mood changes?

Appendix C
Flexibility Index

The following statements require a Yes or No answer. Use the introductory words, "I generally....," before each phrase. Note that a=Yes and b=No. Blacken the corresponding circle on the scantron sheet with a No. 2 pencil.

I generally....

21. try to cope with things as they are.
22. feel there is a right way and a wrong way to teach young children.
23. think change will often interrupt the efficiency of a routine or a task.
24. must believe I will succeed before I try something new.
25. believe changes in routine will make teaching more difficult.
26. believe a rational approach to problem solving is best.
27. choose alternatives according to their risk factors.
28. believe I'm not particularly creative in my teaching.
29. believe if I fail to manage a job position, I'll probably lose my job.
30. tend to set short term rather than long term goals for children.
31. have trouble evaluating alternatives quickly.
32. am skeptical of plans that will change a basic routine.
33. believe that if change happens slowly, in the end it is ineffective.
34. have liked past or present jobs because of security reasons.
35. believe that routine is an important element of teaching.
36. feel an old way of doing things works just as well or better than a new way.
37. feel that many changes don't make any real difference.
38. believe that most people are quite satisfied with the way things are.

39. see most risks as win/lose situations.

40. must understand every facet of a problem before I make a decision.

Appendix D
Values Clarification

Complete the following sentences.

1. I think children are generally _____

_____.
2. When children are unhappy, it's usually because _____

_____.
3. I get angry when children _____

_____.
4. The most important thing a teacher can do is _____

_____.
5. Children should not _____

_____.
6. All children are _____

_____.
7. I wish parents would _____

_____.
8. When parents _____
I feel _____.

Circle the five traits or characteristics you would like children to be or have as a result of their preschool experience with you.

adventurous	open-minded	determined
affectionate	inquisitive	energetic
polite	respectful	friendly
altruistic	self-starter	obedient
caring	sense of humor	spontaneous
honest	industrious	persistent
assertive	creative	proud
confident	independent	risk-taker
cheerful	desire to excel	appreciate beauty

Appendix E

Biodata

SPRING 1995

BIODATA

Social Security # _____

Sex: F M

Class Rank: Sophomore Junior Senior

Laboratory Session: Morning Afternoon

Major: _____

Minor: _____

If you have children, how many do you have? _____

Please list their ages: _____

Check past/present experiences in the early childhood field:

Camp: _____

Child care provider, Babysitter: _____

Day Care Center: _____

Home Day Care: _____

Practicum Experience, Student Teaching: _____

Teacher: _____

None: _____

Other (Please specify): _____

Appendix F
Cover Letters



Eastern
Illinois
University

BOARD OF GOVERNORS UNIVERSITIES

College of Applied Sciences
School of Home Economics
Charleston, Illinois 61920
217 / 581 - 6076

January 10, 1995

Dear Child Development Pre-professional,

Welcome to all of you. I am looking forward to working with you as the graduate assistant in the Child Development Practicum, HEC 3853.

Currently I am working on my thesis for my Master's degree program in Home Economics. The focus of my thesis is to examine pre-professionals' experiences in a child development laboratory. There will be two phases to my data collection. The first phase is now, and the second phase will be the last week of classes.

What I need from you are your honest and candid responses to my research instruments. The responses will help answer the questions in my research.

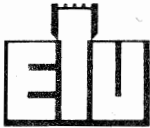
Your responses will be confidential. Do not write your name on the packet. I have provided a space for your social security number on each scantron as a means of scoring the results. Dr. Ozier, Dr. Murphy, and Mrs. Woolever have given me permission to distribute these packets in class. At no time will anyone know the name of the person who has completed these questionnaires.

I will need these instruments completed in full by Thursday, January 12. I will collect them at the 8:00 class session. If you have any questions, please call me at 348-7912. Thank you for your valuable assistance.

Sincerely,

Kathleen O'Rourke

Kathleen O'Rourke
Graduate Assistant



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School of Home Economics
Charleston, Illinois 61920
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April 20, 1995

Dear Child Development Pre-professional,

Enclosed is a follow-up questionnaire to the research instrument that you completed at the beginning of the semester. To successfully complete the research for my Master's thesis, your cooperation is important and valuable.

The scantron sheet is to be completed in full with a No. 2 pencil. On both the questionnaire and the scantron sheet PLEASE FILL IN YOUR SOCIAL SECURITY NUMBER. Social security numbers will be used as a means of scoring the results. The questionnaires are confidential.

I will need the completed instrument to be returned by TUESDAY, APRIL 25. I am in the child development laboratory daily from 9:00 a.m. to 11:00 a.m. and during the 8:00 class sessions. If you have any questions, please call me at the laboratory (581-6043) or at home (348-7912). Thank you for your assistance.

Sincerely,

Kathleen A. O'Rourke

Kathleen A. O'Rourke
Graduate Assistant