

GENDER PERCEPTIONS OF PRESERVICE EARLY CHILDHOOD
TEACHERS: COMPARISON OF INTRODUCTORY AND SENIOR LEVEL
STUDENTS

by

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ABSTRACT

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Gender Perceptions of Preservice Early Childhood Teachers: Comparison of

Introductory and Senior Level Students
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The purpose of this study was to compare the perceptions of preservice introductory students majoring in Early Childhood Education at UW-Stout on gender equity to senior level students involved in their student teaching.

Preservice teachers have been studied at length, giving both teachers and researchers a rich source of information. In all of this information there is little research documenting what Bailey, Scantlebury, and Letts (1997) call gender-blindness. Practicing techniques to identify the subtle gender bias embedded in classroom behavior is an important element in preparing to be an equitable teacher. Education programs should include fundamental research in this training. The researcher sought to find out if teachers of young children understand gender-based differences. Differences

that mean young boys and girls are driven by not only nature (genetic) influences but also nurture (socio-cultural) (Hyun & Tyler; 1999; Sadker & Sadker, 1990; Shore, 1997; Wolfe & Brandt, 1998). Other considerations that needed investigation were the teachers' general perceptions of young children's gender difference: Do preservice teachers respond appropriately to gender-based differences? Are there any changes in gender perceptions of the preservice students from the time they enter the early childhood program until their graduation? And finally, how do early childhood students evaluate their gender instruction in their program?

Because of the need to answer these questions, the researcher investigated the awareness and sensitivity to gender bias of the early childhood majors at the University of Wisconsin-Stout.

The study researched four areas:

1. The freshmen and senior level student teachers on attitudes regarding gender equity;
2. The extent to which their early childhood program addresses gender equity;
3. The students' knowledge about gender and gender equity; and
4. The male and female early childhood education majors on attitudes regarding gender equity.

The questionnaire was divided into five sections. Section I contained demographic data. Section II consisted of 28 attitude items regarding gender

bias. Section III contained 10 true and false questions and section IV contained 9 multiple choice items that measured gender equity knowledge. Section V contained 5 items pertaining to early childhood education program assessment of gender equity. The data for the survey were collected during class time which yielded a 100% response rate. The data were analyzed using a T-Test; Cronbach's Alpha Reliability, and the Kuder-Richardson.

The findings indicate there was a significant difference overall between the freshman and seniors in attitude about gender sensitivity with student teachers being more sensitive than freshman.

When both groups assessed their teacher education programs on gender issues, the data revealed that the student teachers felt they had better preparation than the freshmen, although both groups felt their preparation was below adequate and responded so on the scale. On the gender equity knowledge base section there was no significant difference between freshman and the student teachers. Analysis revealed significant differences on some attitude statements between male and female students.

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Haim Ginott-"I have come to the frightening conclusion that I am the decisive element in the classroom. It's my personal approach that creates the climate."

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CHAPTER ONE

Introduction

Gender identity consists of two components: sexual identity, which is biological, and a person's role identity, which is cultural. Gender roles are the expectations every society has about people's attitudes and behaviors based on whether they are male or female. Although rooted in biology, gender roles are heavily influenced by culture (Olson & DeFrain, 1997). Differences in gender are driven by not only nature (genetic) influences but also nurture (socio-cultural) influences (Cushner, McCelland, & Safford, 1996; Hanlon, 1996; Hyun & Tyler, 1999; Sadker & Sadker, 1990; Shore, 1997; Wolfe & Brandt, 1998).

Gender Identity

Although nature determines an individual's sex, culture determines the attitudes and behaviors appropriate for an individual on the basis of his or her sex. In each culture, individuals learn to adapt to these expectations as they shape their lives. If one's anatomy changes, so does one's gender identity; if one's roles change, gender identity remains the same (Derman-Sparks, 1989).

Nurture Effects

To understand the complexities of creating and maintaining an equal and fair learning environment we need to look at gender and its nurture

effects. There are many contributing characteristics of gender perceptions that are socio-cultural and that define the school experiences of boys and girls.

Girls behave differently from boys in the classroom. This behavior difference comes from a combination of what they are born with and what they learn. Boys and girls often do not have the same educational experience; this difference in education has consequences for their adult life (Wilbur, 1991).

According to standardized test scores, girls start school equal to or ahead of boys in academic skills. By the time students graduate from high school, this pattern is reversed (Sadker & Sadker, 1989). Boys are now ahead.

The child, during this formative time of development, uses gender as a way to categorize herself or himself, other people, and the world around her or him. (cognitive-developmental paradigm (Kohlberg & Ullian, 1978). This categorizing of gender identity lays the foundation for future experiences.

Role of Early Childhood Educators

Early childhood educators need to be knowledgeable about the importance they play in contributing to that foundation. What early childhood educators do, say, or respond to in their classroom contributes to their students' gender identity.

An effective teacher is an equitable teacher (Sadker & Sadker, 1986). To be both effective and equitable requires educators to identify the

educational reality experienced by all students; likewise, they need to dispel the myths and stereotypes that have distracted attention from providing every student with the best education possible (Harvey, 1986).

How do early childhood teachers express and share their perceptions of young children's gender difference in the classroom? Do they respond appropriately to these gender-based differences, and are messages of fairness and empowerment being sent to all their students? What directions are being taken that will help every child to reach beyond stereotypes and be given tools to maximize their potential? Early childhood classrooms have an opportunity to influence a permanent difference, by offering gender fair experiences. These goals can be achieved through a combination of curriculum, language, activities, and organization of classroom settings.

Gender-Fair Curriculum

One of the six attributes that Wilbur (1991), a curriculum researcher, defines as part of a gender-fair curriculum is whether or not it is inclusive, allowing both females and males to find and identify positively with messages about themselves. Research in a review of more than 100 studies by Scott and Schau (1985) found the following:

Pupils who were exposed to sex-equitable materials are more likely than others to:

1. Have gender balanced knowledge of people in society.
2. Develop more flexible activities and more accurate sex role

knowledge. (p.9).

3. Imitate role behavior contained in the materials.

The educational environment that the teacher orchestrates has a huge impact. It is the educator's role to support and guide the tendencies of all the children. Teachers need to offer rich and unbiased curriculum and encourage the idea that the world is their students' oyster, not narrowing their choices and promoting stereotyped images of who they can become. It is crucial then that early childhood teachers are aware of and respond appropriately to gender-based differences and provide classroom climates that encourage all students to be involved in a range of equally fair activities, to free children from constraining, stereotypic definitions of gender role. Teachers need to provide the opportunity for the acquisition of equitable adult life skills. Early childhood educators need to ensure that all children begin this acquisition with instructional strategies and curriculum that benefit everyone and thus offer a gender fair and unbiased place in our society.

Sexual Biases

Educators must be conscious of the sexual biases that are presently reinforced in their own classrooms and not miss the subtle but pervasive gender inequalities. Educators need not only to be made aware of the problems but should also be taught the skills necessary to overcome them. To explore gender in a fair and unbiased way early childhood education curriculum should provide direction in identifying gender blindness in the

early childhood curriculum and help develop effective classroom strategies for dealing with gender bias.

Observation and assessment are necessary to enlighten the educator's sensitivity to the subject of gender fairness. With this new source of knowledge, we can then move forward to create classroom climates that are encouraging to all children and help design classrooms of educational excellence.

Research

Most research has focused on either teachers' unequal and different treatment by gender (e.g., Cahill & Adams, 1997; Fagot, 1984; Oettingen, 1985; Robinson & Canady, 1978) or teachers' different encouragement of gender typing in the classrooms (Cahill & Adams, 1997; Good & Brophy, 1994). Pauline S. Chandler (1994) developed a gender quiz for teachers in grades pre-K through 8 to help them determine if their classrooms were fair to students of both sexes. The questions examined such areas as teacher's expectations of students, classroom techniques, discipline, and gender roles, to name only a few.

Williams and Best (1982) developed a Sex Stereotype Measure II to assess children's knowledge of conventional, adult-defined, sex-trait stereotypes. A second procedure, the Sex Attitude Measure (SAM), was developed to measure general evaluative bias toward male and female

persons, independent of their stereotype knowledge. Also the National Survey on Gender Equity in Preservice Teacher Education, authored by Campbell and Sanders (1997), reported how instructors in methods classes in mathematics, science, and technology addressed issues of gender equity. The survey examined their attitudes toward, participation in, and satisfaction with their teaching about gender. Results indicated that the teacher educators were interested, but uninformed.

Statement of the Problem

The purpose of this study was to compare the perceptions of preservice introductory students attending UW-Stout on gender equity in the classroom, comparing that to senior student teachers in the same program. Data were collected via an attitudinal questionnaire given during the first semester of the 2000 academic year.

The study was conducted during the first semester of the 2000-2001 school year. The research addresses the various areas of gender: personal perceptions, biases, stereotypes, and knowledge. The subjects in the study were preservice students in the early childhood program, who were currently enrolled at the University of Wisconsin-Stout. The two groups under investigation were the introductory freshmen early childhood students and the senior level students doing their student teaching experience.

A pilot study involving 52 students was conducted a week before the instrument implementation. Revisions were made to the instrument as

suggested or deemed necessary from the pilot study. The subjects were then given the attitude survey to complete. The students filled out the questionnaire on two separate occasions: the freshmen students during their Introduction to Early Childhood Education class and the senior students during their seminar student teaching class. After discarding surveys from non-introductory or non- senior level students a final tabulation of subjects were 78 freshman and 49 student teachers.

Research Questions

The questionnaire constructed for this research investigation was developed with the following research questions in mind:

Question 1: Is there a significant difference between entering early childhood freshmen students and student teachers on attitudes regarding gender equity?

Question 2: Is there a difference between freshmen and student teachers in their assessment of the extent to which their early childhood program addressed gender equity?

Question 3: Is there a difference between the knowledge base scores on gender equity between entering early childhood freshmen students and student teachers?

Question 4: Is there a difference between male and female early childhood majors on attitudes regarding gender equity?

Assumptions

The first assumption. It was assumed that each person read the cover letter attached to the questionnaire and understood the purpose of the study and his or her rights as a research participant.

The second assumption. That the cluster sampling technique was representative of the identified population.

The third assumption. It was assumed that people participating understood the direction of each section of the questionnaire, that each subject answered the questions honestly, and that people took their time when filling out the questionnaire.

Limitations

1. The population was restricted to a heterogeneous group of college students from one university and one program within that university.
2. The data could be gender biased because of the number imbalance between male and female students enrolled in the program and subsequently the sample.
3. Three quarters of both the freshmen and student teachers were raised in families with both parents present. This family setting could affect the perceptions the students had on familial roles.

Definitions of Terms

The following terms are defined as they are used in the study.

Anti-bias. An active/activist approach to challenging prejudice, stereotyping, bias, and the “isms.” In a society in which institutional

structures create and maintain sexism, racism, and handicappism. (Derman-Sparks, 1989)

Bias. Any attitude, belief, or feeling that results in, and helps to justify, unfair treatment of an individual because of his or her identity. (Derman-Sparks, 1989)

Gender. The learned characteristics and behaviors associated with biological sex in a particular culture. (Olson & DeFrain, 1997)

Gender Identity. A person's internal sense of being female or male, which is expressed in personality and behavior. (Olson, DeFrain, 1997)

Gender Role. The traits and behaviors assigned to males and females by a culture. (Olson & DeFrain, 1997)

Gender Role Stereotype. A rigid, simplistic belief about the distinctive psychological characteristics and behavioral patterns attributable to a man or woman based exclusively on sex. (Olson & DeFrain, 1997)

Sex. Being biological male or female. (Olson & DeFrain, 1997)

Sexual Prejudice and Bias. Refer to the sets of conscious or unconscious perceptions regarding gender that are based on personal and cultural values and that contain certain qualities. Bias may be injurious and/or negative, and may not be based on experience. Prejudice may be injurious and rigid, may not be based on any prior knowledge or experience, and may be reinforced by institutions and society. (Howe, 1971)

Stereotype. An oversimplified generalization about a particular group, race, or sex, which usually carries derogatory implication. (Derman-Sparks, 1989)

The following four chapters further describe how this study was conducted. In Chapter Two, a review of literature was conducted. Chapter Three presents the methodology. Findings and discussion are presented in Chapter Four. A summary, conclusion, and recommendations are given in Chapter Five.

CHAPTER TWO

Review of Literature

Introduction

From pink and blue tags in hospital nurseries, to Barbie dolls and G.I. Joe dolls, and on to cheerleaders and football players, our society holds different expectations for girls and boys. These expectations in turn generate different patterns of behavior toward children, depending on their sex (Wilbur, 1991). According to Cahill & Adams (1997) and Fagot (1984), teachers' perceptions of gender stereotypes guide their behavior with children. Parents, teachers, and caregivers help formulate the structures that socially initiate the young into their gender-specific roles. We not only learn sexual stereotypes early in life, we accept and continue to promote them. Our nation's schools function to reinforce the sexual stereotypes that children have been taught by their parents, friends, and the mass culture we live in (Howe, 1971).

When a child is born, gender-role stereotypes come into play. People comment, for example, that he is a "strong, healthy boy" or she is a "darling, adorable girl." Labeling affects a child's psychological development in a variety of ways. The child begins to adopt personality traits, attitudes, preferences, and behaviors considered appropriate to his or her sex (Olson & DeFrain, 1997). Gender roles are expectations about people's attitudes and

behaviors in life based on whether they are male or female. Stereotypes are destructive because they imply that all males, and only males, have the so-called masculine qualities, such as aggressiveness, independence, dominance, competence, and a predisposition for math and science, and that all females, and only females, possess the so-called feminine qualities, such as passivity, dependency, sensitivity, and a predisposition for art and literature (Olson & DeFrain 1997). These socially imposed gender role stereotypes create inequalities and limit behaviors and opportunities for all.

Educators have a tremendous opportunity to help students of both genders to expand their concept of what it means to be male and what it means to be female. Boys of all ages need permission and encouragement to learn about themselves, how to be a parent, and how to nurture children. Girls need to be given equitable learning opportunities within the classroom and society (Quants, 1983).

Gender Identity and Development

Gender development is a critical part of the earliest and most important learning experience of the young child. A child's understanding of what it means to be a boy or a girl develops between the ages of 2 and 7 years (Kohlberg, 1966; Fagot & Kronsberg 1982). This timeline in gender acquisition is what makes it so relevant to teachers of early childhood education. Before children enter elementary school, the foundation has already been laid for their understanding of gender. This understanding

guides their participation in, or avoidance of, specific activities and settings that may be instrumental in their learning and success in later years (Marshall, Robeson & Keefe, 1999).

Young children need adult help to understand that their gender identity is based on their anatomy; it is not dependent on what they like to do, how they dress, what they feel, or how they express their feelings. They do not yet know that gender identity remains the same, regardless of one's role change. Constructing gender constancy is an important part of developing a clear sexual identity; otherwise, preschoolers can think that play preferences will change gender (Derman-Sparks, 1989). Understanding that I am a girl, no matter what I like to do; that my body makes me a girl, not how I play is important in acquiring the comfortable acceptance of gender identification. In acquiring this gender identity, the child must first have an understanding of gender stability and constancy: I am a girl today and will always be a girl. (Kohlberg, 1966; Fagot & Kronsberg, 1982). Once children develop gender constancy, they begin to exhibit a preference for same-sex playmates and same-sex toys and activities (Perry, White, & Perry 1984; Smetana & Letourneau, 1984; Marshall, Robeson, & Keefe, 1999).

Differences and Similarities

Research shows that children begin to notice differences and similarities at a very early age. At two and three years of age, children are usually able to differentiate between colors and shapes. Some three-year-olds

may notice skin, eye, and hair color. At four years, children become increasingly interested in how they are alike and different from other children. They begin to see themselves as part of a family and group. They begin to classify people into groups. Young children mimic the way their parents talk and act, as well as the behavior of other adults in their lives. (Ceridian Performance Partners, 1998). By the age of five, preschoolers are strongly influenced by societal norms for gender behavior and accept that girls and boys do different things. They become firmly aware of gender and other differences among people. They begin to be curious about how other families live. They want to know about differences in family routines and compositions. They may also start to experience teasing or rejection by other children based on some aspect of their identity. Children this age may declare certain activities off-limits to girls or to boys. For instance, a boy might say that girls can't play in the wood working area; a girl might say a boy can't play in the dress-up corner (Ceridian Performance Partners. 1998).

Gender Schemas

As the child develops, he or she actively seeks out information about what makes a boy a boy and a girl a girl through the use of environmental cues (Brooks, Gunn, & Matthews, 1979; Archer & Lloyd, 1982). As the child processes these environmental cues, gender schemas are revised continually (Serbin, Powlishta, & Gulko 1993). It is through this process of self-

socialization that children develop the gender schemas that guide their behavior (Maccoby & Jacklin, 1974).

The research of Serbin, Powlishta, and Gulko (1993) supports the integrative theory that incorporates cognitive-developmental, schematic-processing, and social learning theories. In particular, this approach views the child's developing notions of gender-appropriate behavior as a function of a) the child's use of gender as a way to categorize the self, other people, and the world around him or her (cognitive-developmental paradigm) (Kohlberg & Ullian, 1978); b) the development of gender schemas networks of associated knowledge about gender that guide the cognitive processing of new information about gender (Serbin, Powlishta, & Gulko 1993); and c) social learning (learning through observation, reinforcement, and modeling of gender-specific behaviors) (Golomobok & Fivush 1994; Marshall, Robeson, & Keefe, 1999).

History and Focus of Early Childhood Education

Early childhood education in the United States has a long and well-documented practice of using developmental information about individual children collected by teachers as the core information base in planning for children's learning (Feeney & Christensen, 1979; Cartwright & Ward, 1982; Bentzen, 1985; Lambert, Clude & Reeves, 1986; Farquhar 1990). Teachers are encouraged to use their developmental understandings of each child in

the group to plan developmentally appropriate learning experiences (Spodek, 1988; Farquhar, 1990; Taylor, 1992).

Developmentally Appropriate Practice (DAP), from a pedagogical perspective, has its origin in the teachings of John Dewey (Roopnarine & Johnson, 1993), Jean Piaget (DeVries & Kohlberg, 1987) and Lev Vygotsky (1978). DAP believes that children make sense of their surroundings and the way they learn about their world through active integration and personal interactions. Children experiment and discover information while being actively connected with the curriculum. In this way the child internalizes information and makes necessary cognitive connections.

Position Paper

The National Association for the Education of Young Children (NAEYC) strongly favors developmentally appropriate practice. NAEYC published a position statement regarding quality environments for young children (Bredekamp & Rosegrant, 1992). The paper addressed not only what educators know about the way children develop but also how to accommodate individual needs and differences. In the original statement, the two concepts addressed were a) what is age appropriate and b) what is individually appropriate for each child. A third area was introduced cultural appropriateness, after the original document had been published (Bredekamp & Copple, 1997; Bredekamp, 1987).

NAEYC's goal is to build support for equal access to high-quality educational programs that recognize and promote all aspects of children's development and learning, enabling all children to become competent, successful, and socially responsible adults. NAEYC supports the belief that children's educational experiences should afford them the opportunity to learn and to become effective, functioning members of society. (Young Children, January, 1996). It's guiding document, Developmentally Appropriate Practice in Early Childhood Programs Serving Children From Birth Through Age Eight (Bredekamp, 1987) is an attempt to provide classroom teachers with an appropriate base upon which to build curriculum for young children. Actively integrated and creative learning environments are the focus of the method, referred to as DAP. The classroom instruction is founded on the key concept that children learn best from personal experience (Fields & Boesser, 1994). Children should be actively, playfully engaged in their own learning (Boyer, 1997/1998). These classrooms provide many opportunities for children to make choices and solve problems by using reasoning skills. The children then are the real participants in their own learning and not mere recipients of teacher dependency instruction.

Developmentally appropriate practice comes under some scrutiny in regard to the issue of gender and culture and the narrowness of the biases being promoted. Academic critics, such as Mallory and New (1994) argue that

developmentally appropriate practice is socially constructed, context-bound, and insensitive to cultural and individual differences in development.

Cannella (1995) in her article, "Early Childhood: A Call for the Construction of Revolutionary Images," takes a strong view stating that DAP teaching promotes values of gender inequality. The notion that we can describe appropriate practice universally immediately limits our views of learning for young children. She states that creators and supporters of Developmentally Appropriate Practice (DAP) have constructed what Apple (1992) calls "official knowledge" by claiming application to all children, consensus of professionals in the field, and scientific legitimization (Lubeck, 1994). This official knowledge, actually the values and property of the dominant class, then serves to control and oppress those with different experiences and perspectives. DAP, then supports only this one particular cultural view.

Early childhood educators at the end of the 20th century were constructing methodologies, guidelines, and policy recommendations that continue to privilege experiences most often found in middle-class environments and a form of logic that promotes both gender stereotypes and male domination. Excellent examples can be found in Piagetian constructivist programs and in the determinism and marketing (by NAEYC and others) of Developmentally Appropriate Practice (Cannella, 1998).

Critics

According to these critics, DAP was responsible for the promoting of gender stereotypes and not engaging of the diversity of the classroom combinations we see in our schools today. With this approach to children's learning, the teacher's gaze is on the individual. The child is the object and observes her/him through modernist developmental psychology (MacNaughton, 1992). The child is understood as having essential and naturally emerging human qualities, rather than as socially-constituted and gendered, and gender is excluded from the category of the individual. The need to move toward gender-specific observations, not just monitoring the developing child's individual human development is a shift towards a search for gendered dynamics and a knowledge of sexism in relationships between children. This responsiveness provides a teaching and learning environment that is equal, fair, and gender congruent.

The teacher education program at the University of Wisconsin-Stout is an advocate of the DAP method and applies this philosophy in their university lab school. The research for this paper directly comes from the students in that early childhood education program, and their perceptions on gender were the information gathered from the attitudinal survey used to conduct research for this paper.

Targets for Change: Teacher Education Programs

At the closure of the twentieth century it was expected that 80% of all children living in the United States younger than six would be in some kind of preschool setting (Day, 1988). This statement defines the magnitude of exposure that early childhood teachers have to the population of young children. Considering the timeline of gender acquisition and the magnitude of exposure, these environments are targets for change. The educational settings of these young students influence the development of their attitudes about who they are and what paths and directions are open to them. Materials, curriculum, teachers' communication and behavior, and interactions with other children are all contributing factors in acquiring a positive sense of oneself and one's gender identity.

Reevaluation

Greenburg (1980) suggested that early childhood teachers reevaluate existing early childhood curriculum and develop ways to prevent and remediate the developmental deficiencies created by gender stereotyping. She forcefully argued for active intervention to remedy the cognitive, social-emotional, and physical deficits brought about by constraining gender stereotypes that limit growing children's access to specific areas of experience.

When they enter an early childhood environment, children are more open to friendships with members of the other sex and more open to non-stereotypic play experiences than they are when they leave. Clearly, while the early childhood environment cannot be held solely responsible for this biased development, it cannot be held totally guiltless either (Greenberg, 1980).

It is crucial then that teachers are first aware of their gender perceptions and whether their decisions in curriculum, instruction, and communication are guided by gender sensitivity and equality or whether they are driven by gender stereotypes and biases, which in turn influence the learning outcome of their students. A teacher who is effective is also equitable. As teachers improve their method of instruction, with special emphasis toward gender equity, the results will be increased academic learning time and achievement for all. Sadker & Sadker (1986) found out that training could dramatically change teachers' habits. Because the teacher is the most critical person in ensuring student achievement, high levels of teaching skills will lead to more powerful learning outcomes for all groups of students.

Instrument for a Positive Change.

The University of Wisconsin-Stout's Early Childhood Education program can be an instrument for positive change. The program contains all the elements necessary to prevent and counter the damage of gender

stereotyping before it becomes too engrained. It educates preservice teachers to work with children during this vulnerable stage of child development, birth through 5 years of age, the age when children acquire their sexual identity and communicate learned values.

Teacher education has been slow to teach about and respond to gender bias. Campbell and Sanders (1997) found that two-thirds of education professors spent less than two hours teaching about gender equity and that they rarely provided practical classroom strategies to neutralize bias. More than half the professors were satisfied with this limited treatment.

The teacher education instruction should offer curriculum in providing multiple opportunities for students to explore gender in a fair and unbiased way. Direction should be provided in identifying gender blindness in the curriculum and promoting effective classroom strategies for dealing with gender bias. Educational practices can then focus on an enlightened sense of identity and a respect for the diversity, similarities, and differences of gender-based knowledge.

Gender Blindness and Equality

To offer an equitable classroom to all students, the issue of gender blindness and gender equality must be addressed. Wilbur (1991) stated that gender-fair curriculum has six attributes: It acknowledges and affirms variation (i.e., similarities and differences among and within groups of people). It is inclusive, allowing both females and males to find and identify

positively with messages about themselves. It is accurate, presenting information that is databased, verifiable, and able to withstand critical analysis. It is affirmative, acknowledging and valuing the worth of individuals and groups. It is representative, balancing multiple perspectives. And finally, it is integrated, weaving together the experiences, needs, and interests of both males and females.

An environment that is rich in possibilities for exploring gender sets the scene for practicing anti-bias curriculum. What is introduced in the environment also alerts children to what the teacher considers important. Likewise, what is omitted from the environment signals what the teacher feels is not important. Children are as vulnerable to omissions as they are to inaccuracies and stereotypes (Derman & Sparks, 1989).

Despite years of research detailing the significance of gender in children's development (Hoing; 1983; Libby & Aries, 1989), many early childhood teachers often fail to recognize the significance of gender in children's lives (Browne & France, 1986; Dunn & Morgan, 1987; Walkerdine, 1990; Morgan & Dunn, 1990; MacNaughton, 1992) and the complex and multiple ways it influences how, when, where, and what 4 and 5 year-old children learn in, and through, the early childhood curriculum.

Those who believe in gender equity face an uphill struggle:

Each time I begin a training program to help educators detect and eliminate bias from their classroom teaching, I am reminded of what some call gender blindness (Bailey, Scantlebury, & Letts, 1997, p.# 29).

Why does there exist a gender block? Why do teacher educators miss the subtle, but pervasive, gender biases that are present in classrooms? How can we motivate teachers to create equitable teaching strategies once they evaluate and acknowledge the bias?

Sadker and Sadker (1995) describe a syntax of sexism so elusive that most teachers and students were completely unaware of its influence.

Teacher education and staff development do little to prepare teachers to see the subtle, unintentional (but damaging) gender bias that still characterizes classrooms.

After practicing techniques to identify the subtle gender bias embedded in her classroom behavior, a teacher education student at the University of Wisconsin-Madison wrote: I really didn't think (gender bias) was very prevalent, particularly because it can be so subtle. I especially didn't think I would ever do it. But I had also called on the boys more, not realizing. They were being quiet, instead of noisy, and I called on them to reward them they could pick out the next book. Yet the girls had been good the entire time, yet I hadn't called on them, at all (Lundeberg, 1997,p .59). A subtle but influencing factor those teachers should consider when looking

for gender blindness is in the text and printed word to which we expose students.

Children's Role in Literature

The text and printed word teachers expose students to are subtle, but influencing, factors that teachers should consider when looking for gender blindness.

Major influences on gender role development and socialization of young children occur through picture books. Illustrated books play a significant part in gender development, as they are a vehicle for the presentation of societal values (Paterson & Lach, 1990). Stories do not merely entertain our young children; they also articulate cultural values and standards. They become learning texts for young children. So often in children's literature we see the boys play in the real world outdoors, while the girls sit and watch them, cut off from that world by the window, porch, or fence around their house (Paterson & Lach, 1990). Dominant roles are assigned to boys versus girls, plus the sheer volume of male dominated characters as opposed to their female counterparts is imbalanced. It seems obvious that repeated exposure to these kinds of images have a detrimental effect on the positive development of girls' self-esteem. Children's literature should become the tool for the conscious promotion of human values equally.

There have been numerous studies analyzing children's literature that find the majority of books dominated by male figures. For example, Ernst (1995) did an analysis of titles of children's books and found male names represented nearly twice as often as female names. Children's books

frequently portray girls as acted upon rather than active (Fox, 1993). Often, girl characters achieve their goals because others help them, whereas boys do so because they demonstrate ingenuity and/or perseverance. If females are initially represented as active and assertive, they are often portrayed in a passive light toward the end of the story. Girl characters who retain their active qualities are clearly the exception (Rudman, 1995).

May Narahara (1998) focused her study on children's literature. The study investigated whether some books read by kindergarten teachers to their students represented a higher proportion of female or male characters in text and imagery, and whether there was a higher proportion of female characters or male characters portrayed in stereotypical activities and roles. Her study, Gender Bias in Children's Picture Books: A Look at Teachers' Choice of Literature, serves as good examples of gender-free materials as well as several examples of clearly defined gender-biased books.

Equitable Classrooms

Gender biasing can occur within our nation's classrooms through overt segregation of males and females, or it may occur more discreetly through inequitable teacher interaction with one gender receiving an inproportionate amount of the teacher's time and attention (Sadker & Sadker, 1982).

Although most teachers believe that they treat girls and boys the same, this is not the case. Both female and male teachers have been found to interact more with boys and to provide boys with more approval, more disapproval,

and more opportunities to respond. Overall, boys receive more positive and more negative attention than girls (Oettingen, 1985; Libby & Aries, 1989).

A review of the literature indicated that teachers interact differently with female and male students in elementary, secondary, and postsecondary classrooms (Murphy, 1986). Teachers interact more with boys at every grade level. It does not matter whether the teacher is male or female; classroom scales tilt firmly in favor of the boys. Over time, that imbalance could put girls at a real risk (Sadker & Sadker, 1986).

Research

The current research revealed that boys in day care and early elementary classrooms are given more guidance and instruction to help them finish their physical and oral activities, while girls are given more actual assistance. That is, the teachers complete the girls' activities for them (Murphy, 1986).

Participation in classroom discussions is an important element of academic achievement. In many classrooms, boys talk more than girls because they are called on more often by the teacher. One way that boys get to do so much talking is by shouting out the answers without raising their hands (Sadker & Sadker, 1985).

Teachers also praise boys far more often than they praise girls. Boys also receive more criticism. Through praise, boys receive more encouragement and more chances to improve. Through criticism, boys

learn how to defend themselves and handle criticism (Sadker & Sadker, 1986).

Teacher Messages

Teachers give girls the message that they are dependent and boys are autonomous. Girls are taught to rely on the teacher to finish their tasks. Thus, girls receive the message that girls are less able and inferior to boys (Sadker & Sadker, 1985).

Teachers' Personal Beliefs

Research has indicated teachers' personal beliefs and stereotypical perceptions affect their attitudes and classroom practice. There has been a lot of research that has focused on teachers' different encouragement of gender typing in the classrooms (Good & Brophy, 1994) or teachers' unequal and different treatment by gender (e.g., Cahill & Adams, 1997; Fagot, 1984; Oettingen, 1985; Robinson & Canaday, 1978). According to Sadker & Sadker (1982) many teachers operate with preconceptions about the skills, behavior, and performance of girls and boys based on their gender.

Cahill and Adams (1997) conducted a study to explore early childhood teachers' beliefs and attitudes toward gender roles. Their study found that while early childhood teachers express some openness to children exploring gender roles, teachers generally felt more comfortable with girls, rather than boys, exploring both male and female gender roles (p. 526).

The damage of this stereotyping is irreparable. The perceptions we have of our abilities, talents, and characteristics follow us from childhood into the adult world. What a student learns or doesn't learn has lasting effects. They affect the familial and work environments we live and interact in every day of our lives.

Familial Environments

In a Gallop Poll done in 1996 involving 22 countries, women were perceived as more affectionate, emotional, talkative, and patient than men were. In the United States, 76% of those surveyed considered women to be the more affectionate sex; only 6% named men the more affectionate. When asked which sex is the more emotional, 88% said women, and only 4% said men. Men were perceived across cultures as being more aggressive, ambitious, and courageous than women (Olson, & DeFrain, 1997).

Boys learn from early on to conform to society's expectations of their sex. While parents may view their "tomboy" daughter with tolerance and affection, nobody wants a "sissy" son. The cardinal rule for boys is "don't be like a girl" (Gordon, 1980). When the father is present, he usually surpasses the mother in punishing the boy for being too "feminine" perhaps because of his own sex role insecurities. Through negative sanctions from parents and peers, boys find out that "boys don't cry," "boys don't cling," and so on (Lynn, 1969).

American couples still tend to exhibit gender-role family work patterns. In the home, men tend to do "men's work," and women do "women's work." In a similar vein, other researchers have found that women carry a larger share of the responsibility for the children than do men (Leslie, Anderson, & Branson, 1991).

Work Environments

Women make up 45% of the nation's work force, but women are concentrated in a narrow range of occupations traditionally considered appropriate for them. Sixty percent of all women working outside the home are working in clerical, service, or professional jobs and more than 60 % of these professional women are in female-intensive fields such as teaching and nursing (Taeuber, 1991).

Job segregation is not the only factor influencing women's lower earnings. Women earn less than men do even when they hold identical jobs. Female machine operators, secretaries, lawyers, and university professors all make less than their male colleagues do (U.S. Department of Commerce, 1990).

Goals of Gender Free Learning

Derman-Sparks (1989) states that children need adult encouragement to go beyond stereotypic gender role constraints and try out new behaviors. Young children need information and role modeling about expanding gender roles and guidance for their understanding of cultural criteria.

Teachers need to look more specifically at gender in thinking professionally and personally about gender issues and a belief in the necessity to critically assess their own understandings.

Teachers must be especially vigilant in their actions to shape unbiased learning environments. They must consider the following actions:

1. Free children from constraining stereotypic definitions of gender role so that no aspects of development will be closed off simply because of a child's sex.
2. Foster children's healthy gender identity by enabling them to gain clarity about the relationship between biological identity and gender roles.
3. Promote equality of development for both sexes by facilitating each child's participation in activities necessary for physical, cognitive, emotional, and social growth.
4. Develop children's skills for challenging sexist stereotypes and behaviors. (Sparks, 1989).

In the United States early childhood education programs, gender-fair learning environments have been identified as an important component in a teacher's daily practice. (Cannella 1995; Derman-Sparks, 1989). Education has focused primarily on the preparation of future workers (Wilbur, 1991). The need to redirect our attention and focus on every student's path of excellence is imminent.

The opportunities and choices available to our students should be fair and equitable to everyone. This reform begins with the individual teacher and the limitations and expectations he/she imposes by what he/she brings to his/her classroom. The arena he/she orchestrates does have a lasting and permanent effect on the children he /she teaches every day.

Summary

In summary, there are a number of clear conclusions. First and foremost is the importance of gender issues and its relevance to early childhood educators. Gender issues and the way we relate to people who are different from oneself in any dimension are tremendously important facets of one's life. They define all individuals in numerous, diverse and significant ways. They affect, and thus impact, the quality of everyone's lives. This crucial facet is shaped when an individual is very young. Thus, it is important for the teachers of young children to pay attention to this issue of gender free teaching.

The literature suggests that gender is a complex issue. Perceptions are shaped based on socio-cultural situations, on family perceptions, and, without question, on school experiences. Girls and boys are treated differently in our schools, and these differences shape children's perceptions about themselves for the rest of their lives.

The role of the teacher is central. Research shows that in promoting gender equity, how teachers respond to individual children, their ability to

select gender fair teaching materials and develop a gender free environment is critically important to gender equity in the classroom. Teachers inadvertently teach their own biases; therefore, it is important for each teacher to examine his or her possible biases and learn how he or she might influence children. Educators must be conscious and address sexual biases that are present in their classrooms and not miss the opportunity to optimize equitable instruction. It is not enough to teach tolerance of gender bias;; instead, our teachers should have the strategies and skills to eliminate them. Teachers must also be prepared to help young children make sense of gender issues and open up options for limitless choices.

While not wanting to oversimplify a complex issue, the manner in which teachers address gender issues determines how children develop their personal concept of gender. Therefore, training these teachers is a central issue. Most adults are so accustomed to stereotypes that they often fail to recognize them.

CHAPTER THREE

Methodology

The purpose of this study was to determine the attitudes and knowledge of freshman and senior level early childhood students at the University of Wisconsin-Stout in regards to gender perceptions and sensitivity to equality. The respondents were also asked to assess their teacher education program in the areas of preparedness, instruction, and skill use in dealing with gender equity.

This section includes the research questions, sample selection process, instrument development process, research procedure, instrument used, data collection procedures, and the analysis.

Research Questions

The questionnaire constructed for this research investigation was developed with the following research questions in mind:

Question 1: Is there a significant difference between entering early childhood freshman students and student teachers on attitudes regarding gender equity?

Question 2: Is there a difference between freshman and student teachers in their assessment of the extent to which their early childhood program addresses gender equity?

Question 3: Is there a difference between the knowledge base scores on gender equity between entering early childhood freshmen students and student teachers?

Question 4: Is there a difference between male and female early childhood education majors on attitudes regarding gender equity?

Subjects

The subjects chosen to participate in the study were ECE students currently enrolled at the University of Wisconsin-Stout during the first semester of the 2000-2001 school year. Subjects were enrolled in two sections of the class HDFL-100, Introduction to Early Childhood Programs, and senior students who were student teaching at the preschool, kindergarten, and grade 3 level.

There were 189 respondents to the final questionnaire. Nine freshman introductory students' questionnaires were discarded because of undecided majors. Subjects used to answer research questions 1, 2, and 3 were 78 freshmen subjects and 49 student teacher participants. 180 early childhood respondents were used to answer research question 4.

Instrumentation

The method used to collect data in this study was a questionnaire. It was designed to examine students' attitudes, their perceptions of gender, their knowledge in regard to gender equity, and an assessment of their

teacher education program in terms of gender equality. Refer to Appendix A for a sample of the instrument used to collect data for this research study.

The questionnaire was designed by the researcher after reviewing current literature related to gender equality in education. It consisted of four sections: a) demographic information of the student respondents, b) general attitudes in regard to gender, c) knowledge-based questions, d) program assessment.

The subjects responded to the questionnaire during their Introduction to ECE program classes or during a student teaching seminar. This format was chosen for the following reason a) availability of student contact, b) the in class questionnaire could reach a larger sample in a shorter amount of time and was less time consuming, c) return rate was excellent, with all students responding. Subjects were informed that their answers were anonymous and confidential.

Section One

The first section of the questionnaire was designed to secure demographic information about the students. Subjects were asked to place a check in the category best representing their response to the following items: gender, age, classification in school, transfer student, major, and courses completed. Also, information was gathered pertaining to ethnic background, sibling placement, family make-up, and a listing of their own children's ages if they were a parent.

Section Two

The second section was designed to measure attitudes of students related to gender perceptions. The 28-item attitude scale included statements relating to gender equity and perceptions and issues based upon the literature reviewed. The issues of six subscales, play, traditional roles, gender equity, work, child rearing and appearances. A Likert scale consisting of nine points that ranged from (1) strongly disagree to (9) strongly agree was used to elicit a response from each subject on each attitude statement.

Subjects were asked to read each statement carefully and place the number that best represented their response in the blank. The attitudes of the students and their perceptions of gender were represented in the 28 attitude statements. The attitude statements were derived from the literature reviewed. A factor analysis was done to form six subscales: play, traditional roles, gender equity, work, child rearing, and appearance. The eight attitude statements included in the subscale play were:

1. Boys do not choose certain activities for fear of being teased.
10. Children prefer playing with toys that are typically associated with their gender.
13. Boys are more physically active in the classroom than girls.
- 14 Young girls prefer to play with girls.

18. Boys are encouraged to play in the dramatic play corner of the classroom.

12. Girls should participate in activities that encourage spatial exploration.

24. Girls spend more time in the art area than boys.

9. Girls talk louder in the classroom than boys.

Statements 18 (Boys are encouraged to play in the dramatic play corner of the classroom) 22 (Girls should participate in activities that encourage spatial exploration) and 27 (Girls talk louder in the classroom than boys) are all reversal statements in the subscale play.

The eight attitude statements included in the subscale traditional roles were:

4. Men demonstrate support for women who take on roles that are traditionally male.

6. Women are expected to be more nurturing than men.

11. Women are stronger in character than men.

15. Women who do not show much warmth are looked down upon.

16. Men are considered the primary family earners.

19. Men are typically chosen for leadership roles over women.

23. Men are more authoritarian than women in their interpersonal relationships.

26. Boys hide their emotions.

Statements 4 (Men demonstrate support for women who take on roles that are traditionally male), 11 (Women are stronger in character than men) are reversal statements in the subscale traditional roles.

The four attitude statements included in the subscale gender equity were:

5. Children's literature adequately reflects the conditions and contributions of women in today's society.
12. Women are still responsible for most household work, while men "help out".
17. My teacher education program should teach more about gender equity in the classroom.
4. Fathers get more upset if their son acts like a sissy, than if their daughter acts like a tomboy.

Statement 9 (Children's literature adequately reflects the conditions and contributions of women in today's society) is the reversal statement in the subscale gender equity.

The five attitude statements included in the subscale work were.

1. Mothers of young children should not be employed in or outside of the home.
5. Teachers accept girls displaying masculine behavior more easily than boys displaying feminine behavior.
7. I would rather work for a man than a woman.

21. I would prefer having a male teacher.

25. The gender of my teacher makes no difference to me.

There were no reversal statement in the subscale work.

The two attitude statements included in the subscale childrearing were:

7. Boys should be encouraged to take on caregiver roles within the family.

20. I would raise my daughter, the same way I would raise my son.

Both statements were reversals in the subscale childrearing.

The one attitude statement included in the subscale appearance was.

2. At times I have been rewarded for my appearance, rather than skills and competencies. There were no reversal statements in the subscale appearance.

Section Three

The third section of the questionnaire was a knowledge -based section. It included 10 true and false questions and 9 multiple choice questions.

In the true and false section the subject was asked to respond by writing either true or false. Correct answers to these questions were supported by research found in the literature review.

In the multiple choice section, the subject was asked to select the best answer out of three to five possibilities. Correct answers to these questions were also supported by research found in the literature review.

Section Four

The fourth section of this questionnaire was program assessment. A five-point scale ranging from (1) none to (5) extensive was used to determine how extensively or minimally each early childhood major agreed with the statement. The five assessment questions were applicable to the student's evaluation of the UW-Stout early childhood teacher education program in which he or she was currently enrolled.

Pilot Study

A pilot study of the instrument was conducted on September 27 and 28, 2000 in two sections of HDFL 313, Parent Education /Involvement. There was an assortment of majors in the sample: Early Childhood Education, Human Development and Family Studies, Special Education and Family and Consumer Science Education. A total of fifty -one questionnaires, along with a cover letter, were handed out to the two different classes on the UW-Stout campus.

The pilot was used to determine if the questionnaire directions were clearly stated. The participants also made any structural or grammatical changes they viewed necessary and made comments and suggestions that they felt would improve the quality of the questionnaire.

Besides structural and grammatical changes, there was also an altering of the scales. Changes were made to the questionnaire as a result of

the pilot study. The scales were changed so that they resembled one another in uniformity. They were changed to read: strongly disagree, slightly disagree, undecided, slightly agree and strongly disagree. Prior to the change one of the scales read: disagreed strongly, disagreed slightly, undecided, agreed slightly, agreed strongly. The scale change was done to avoid the confusion of the two different labelings of the Likert scales.

A recommendation from the pilot study that was not altered by the researcher was the labeling of ethnic names. Several respondents suggested other labels, but after contacting the Office of International Studies and looking at other research questionnaires, the researcher felt the ethnic names were politically appropriate at this specific time.

The study is of a non-experimental design. The researcher was not attempting to induce changes by manipulation of the independent variable. The results obtained should have a connection between the demographic information of the preservice student and gender sensitivity and perceptions.

Data Collection

The freshman subjects were given the questionnaire and cover letter during their introduction to early childhood education class on October 4, 2000. The senior student teachers were given the questionnaire and cover letter at their seminar meeting on October 13, 2000. The questionnaires were identical. The cover letters were a different color, visually separating the freshman from the senior level student. The cover letter explained the

purpose of the study, the value of their input, and their rights as a research participant.

The researcher supplied her address and phone number in case any of the participants were interested in learning the results of the survey (See Appendix B). This study had a 100% response rate because of the in-class participation.

Data Analysis

The questionnaires were taken to the University of Wisconsin-Stout Computer Center to be analyzed. Valid data were interactively entered into the computer by the secretarial staff. This interactive process allowed the operator to enter, edit, and verify data from each questionnaire, thereby reducing key entry errors.

Demographic information was analyzed by computed frequency distribution, standard deviations, and mean scores. Attitude information was analyzed by a t-test, in which the mean, standard deviation, t-value, and level of significance were analyzed.

The Cronbach's Alpha Reliability on gender equity was used to collect data on the six subscales: play, traditional roles, gender equity, work, child rearing, and appearance. It was also used in analyzing the total attitude scores as well as the program assessment scores.

Knowledge based questions on both sections were analyzed by the percentage of correct answers. The reliability of the knowledge items (10

true/false and 9 multiple choice) was evaluated using the Kuder-Richardson measure for reliability. This formula is most useful with traditional test items that are scored as right or wrong, as in the case of the knowledge based section. The Kuder-Richardson is based on the proportion of persons passing each item and the standard deviation of the total scores.

CHAPTER IV

Results and Discussion

Chapter IV presents findings from a questionnaire distributed to 180 University of Wisconsin-Stout students. The questionnaire consisted of four sections: demographics, attitudes relating to perceptions of gender, knowledge in regards to gender issues and program assessment. Following the results, a discussion of the findings can be found.

TABLE I
Sex of Respondents

SEX	FRESHMEN N=78	STUDENT TEACHERS N=49
Female	84.6%	93.9%
Male	15.4%	6.1%

TABLE II
Age Category of Respondents

AGES	FRESHMEN N=78	STUDENT TEACHERS N=49
18 and Younger	68%	0
19 and 20	24.4%	0
21 and 22	6.4%	42.9%
23 and 24	0	36.8%
25-30	1.3%	10.2%
31-40	0	6.1%
41 and Older	0	4.1%

TABLE III
Respondents Ethnic Background

	FRESHMEN N=78	STUDENT TEACHERS N=49
Latino	1.3%	2.0%
Asian	2.6%	2.0%
White	94.9%	93.9%
Black	1.3%	0
Multi-Racial	0	2.0%

Demographic Characteristics

The first two demographic questions that the subjects were asked to respond to were gender and age. The sample was made up of 112 females and 15 males. See Table I. A wide range of ages was represented in this study. The youngest category was 18 years or younger with a 68% respondents represented. The largest percentages of student teachers were in the category of the 21-22 year olds. A total of 20.4 % of the sample were student teachers who were 25 years or older when they did their student teaching experience.

Most early childhood majors ranged between 18 and 24 and accounted for 98.8 %of the total freshmen responses, and 79.7 %for the total student teacher responses. SeeTable II.

Table III shows the ethnic composition of the respondents. This mirrored the undergraduate enrollment at UW-Stout. The population was

primarily white with little ethnic diversity. Both freshman and student teachers showed predominately white populations. See Table III.

TABLE IV
Family Structure

	FRESHMEN N=78	STUDENT TEACHERS N=49
Single Parent Family	9.0%	12.2%
Family w/Both Parents	85.9%	77.6%
Remarried Family	5.1%	8.2%
Multiple Responses	0	2.0%

Family Structure

To get a sense for the type of family structure each of the subjects were raised in, the participant was asked to respond to family make up. See Table IV. The dominant family structure was the nuclear family with both parents present. Approximately ten per cent of the total respondents were raised in single parent families.

TABLE V Significant Differences in Attitudes between Freshmen and Student Teachers

QUESTION	FRESHMEN N=78	STUDENT TEACHERS N=49	T-VALUE	LEVEL OF SIGNIFICANCE
1. Boys do not choose certain activities for fear of being teased.	M 6.10 SD 2.06	6.39 1.98	.771	.442
2. At times I have been rewarded for my appearance, rather than skills and competencies.	M 6.03 SD 1.87	5.53 2.19	-1.308	.194
3. Mothers of young children should not be employed in or outside of the home.	M 3.13 SD 2.33	2.55 2.18	-1.394	.166
4. Men demonstrate support for women who take on roles that are traditionally male. R	M 5.15 SD1.97	5.24 1.56	.289	.713
5. Teachers accept girls displaying masculine behavior more easily than boys displaying feminine behavior.	M 6.31 SD1.83	5.71 2.12	-1.671	.097
6. Women are expected to be more nurturing than men.	M 7.72 SD 1.35	7.39 1.47	-1.298	.197
7. Boys should be encouraged take on caregiver roles within the family. R	M 2.21 SD 1.33	1.90 1.37	-1.250	.214
8. I would rather work for a man than a woman.	M 4.99 SD 2.08	4.59 1.92	-1.073	.285
9. Children's literature reflects the conditions and contributions of women in today's society. R	M 5.09 SD 1.46	4.88 1.75	-.737	.462
10. Children prefer playing with toys that are typically associated with their gender.	M 5.91 SD 2.2	5.61 1.72	-.806	.422
11. Women are stronger in character than men. R	M 5.36 SD 2.09	5.33 1.75	-.094	.925
12. Women are still responsible for most household work, while men "help out".	M 6.26 SD 2.51	6.08 2.38	-.389	.698

QUESTION	FRESHMEN	STUDENT TEACHERS	T-VALUE	LEVEL OF SIGNIFICANCE
13. Boys are more physically active in the classroom than girls.	M 5.18 SD 1.99	5.47 2.30	.753	.453
14. Young girls prefer to play with girls.	M 5.83 SD 2.18	5.08 2.28	-1.857	.066
15. Women, who do not show much warmth, are looked down upon.	M 5.95 SD 1.90	6.10 1.79	.452	.652
16. Men are considered the primary family earners.	M 6.50 SD 2.02	6.29 1.72	-.616	.539
17. My teacher education program should teach more about gender equity in the classroom.	M 6.26 SD 1.88	6.35 1.63	.297	.767
18. Boys are encouraged to play in the dramatic play corner of the classroom. R	M 4.69 SD 1.76	2.82 1.79	-5.812	.000
19. Men are typically chosen for leadership roles over women.	M 6.26 SD 1.94	6.49 1.82	.697	.500
20. I would raise my daughter, the same way I would raise my son. R	M 4.15 SD 2.45	3.29 1.81	-2.287	.024
21. I would prefer having a male teacher.	M 4.47 SD 1.59	4.76 1.70	.941	.348
22. Girls should participate in activities that encourage spatial exploration. R	M 3.59 SD 1.67	2.38 1.57	-4.058	.001
23. Men are more authoritarian than women in their interpersonal relationships.	M 5.47 SD 1.83	5.44 1.95	-.107	.915
24. Girls spend more time in the art area than boys.	M 4.21 SD 1.94	4.98 2.11	2.106	.037
25. The gender of my teacher makes no difference to me.	M 7.78 SD 1.93	7.04 2.03	-2.049	.043
26. Boys hide their emotions.	M 6.62 SD 1.83	5.23 2.07	-3.936	.000
27. Girls talk louder in the classroom than boys. R	M 5.38 SD 2.08	6.67 1.93	3.456	.001

QUESTION	FRESHMEN	STUDENT TEACHERS	T-VALUE	LEVEL OF SIGNIFICANCE
28. Fathers get more upset if their son acts like a sissy, than if their daughter acts like a tomboy.	M 7.36 SD 1.74	7.29 1.11	-.239	.811

R= reversed items

Research Question One

The second section of the questionnaire asked the respondents to indicate the degree to which they agree with each of the 28 attitude statements relating to perceptions on gender equity. A Likert scale of 1=disagree strongly, 3=slightly disagree, 5=undecided, 7=slightly agree, and 9=agree strongly were used.

To answer research question 1. There is no significant difference between early childhood entering freshmen students and student teachers on attitudes regarding gender equity a statistical analysis was computed. The mean, standard deviation, T-value and level of significance were calculated for each question. Refer to Table V for data results.

A high mean score, on an attitude item would represent that the group would be more gender stereotypical. A low mean score then would indicate greater gender sensitivity. In order for the statement to be statistically significant, it would need to be significant at the .05 level.

Statements 4, 7, 9, 11, 18, 20, 22, and 27 were reversal statements. For example, statement 27, girls talk louder in the classroom than boys, is a reversal statement. Research supports that boys talk louder in the classroom than girls.

There was a significant difference between freshmen and student teachers shown on the reversal statement 18: boys are encouraged to play in the dramatic play corner of the classroom. The freshmen mean was 4.69 and the student teacher mean was 2.82 with significance at the .000 level. The student teachers were more gender sensitive to this statement about children's play than were the freshmen.

Another reversal statement was item 20: I would raise my daughter the same way I would raise my son .A significant difference at the .024 level was found. A greater gender sensitivity of the student teachers was shown with a mean of 3.29, while the freshmen mean was 4,15. Statement 22 was also a reversal statement: girls should participate in activities that encourage spatial exploration. A significant difference was found at the .001 level. On this item the student teachers scored mean was 2.38 and the freshmen mean was 3.59. Again the student teachers showed more gender sensitivity than the freshmen. Statement 24: girls spend more time in the art area than boys. A significant difference at the .037 level was shown. The mean score of the student teachers was 4.98 while the freshmen mean was 4.21. The student

teachers response to items 22 and 24 indicated a greater sensitivity to gender perceptions of play than did the freshmen.

A significant difference at the .043 level was found between the two groups on statement 25: The gender of my teacher makes no difference to me. The t-Value was -2.049, with the freshmen mean at 7.78 and the student teacher mean at 7.04. Item 26 boys hide their emotions, was significant at the .000 level with a t-value of -3.936. The freshmen mean was 6.62 and student teacher mean was 5.23. Item 26: boys hide their emotions, was significant at the .000 level with a t-value of -3.936. The freshmen mean was 6.62 and student teacher mean was 5.23. Items 25 and 26 were the only statistically significant statements that the freshmen showed more gender sensitivity than student teachers.

The last significant difference was the reversal statement 27: girls talk louder in the classroom than boys. Student teachers showed greater gender sensitivity to this item with a mean of 6.67 whereas the freshmen mean was 5.38. The difference was significant at .001 level. Refer to Table V.

TABLE VI
Significant Differences Between ECE Freshmen
and Student Teachers on Attitude
Subscales and Total Score

SUBSCALES	FRESHMEN N=78	STUDENT TEACHERS N=49	T-VALUE	LEVEL OF SIGNIFICANCE
1. Play	M 5.6462 SD 1.1514	4.8042 1.4301	-3.630	.000
2. Traditional Roles	M 6.3154 SD 1.1968	6.3020 .9875	-.065	.948
5. Gender Equity	M 6.8077 SD 1.7362	6.6771 1.4785	-.433	.666
4. Work	M 4.7244 SD 1.2707	4.4031 1.2928	-1.378	.171
5. Child Rearing	M 3.1795 SD 1.4549	2.5918 1.1667	-2.385	.019
6. Appearances	M 6.0584 SD 1.4667	5.9592 1.5540	-.362	.718
Attitude Analysis Total Score	M 5.4981 SD .5587	5.2366 .5199	-3.630	.000

Significant differences on the attitude subscales and total 28-item attitude instrument are shown in Table VI. On the subscale play, a significant difference was found between the freshman with a mean of 5.6462 and the student teachers at the 4.8042 level. The t-value was -3.630 with a level of significance at the .000 level. Student teachers were more gender sensitive on the play subscale than freshmen.

Student teachers were more gender sensitive on the subscale child rearing than freshmen. The level of significance was at the .019 level between the two groups with a t-value of -2.385.

In addition the subscales of traditional roles, gender equity, work and appearances were tested. These subscales did not reveal significant differences between the two groups.

The attitude analysis total score revealed significant difference at the .000 level between the two groups. This indicated a heightened level of gender sensitivity of the student teachers in comparison to the freshman students. See Table VI.

TABLE VII
Cronbach's Alpha Reliability on Attitude
Total Scale and Subscale on Gender Equity
N =179

SUBSCALES	ALPHA RELIABILITY
Play	.6333
Traditional Roles	.5902
Gender Equity	.4809
Work	.5350
Child Rearing	.0849
Appearances	.3755
Attitude Scores	
TOTAL	.6237

Cronbach's Alpha reliability coefficient was used for both individual and group prediction. All six subscales including play, traditional roles, gender equity, work, child rearing, and appearances were calculated. These subscales did not reach .65 and higher needed for group prediction. The subscale play had a reliability coefficient of .6333 level and for the attitude score .6237. See Table VII.

TABLE VIII
Cronbach's Alpha Reliability on Gender Equity
Total Program Assessment
N=179

PROGRAM ASSESSMENT SCORES TOTAL	.8490
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The reliability of the program assessment scale was calculated using Cronbach's Alpha reliability coefficient. The reliability of the five-item scale was found to be .8490. See Table VIII.

TABLE IX
Program Assessment-Extent to Which ECE Program
Addressed Gender Issues

	FRESHMEN N=78	STUDENT TEACHERS N=49	T-VALUE	LEVEL OF SIGNIFICNACE
48. I have studied gender equity in my early childhood program	M 2.52 SD 1.01	2.80 .87	1.583	.116
49. I have developed effective classroom strategies for dealing with gender bias	M 2.19 SD 1.01	3.24 .80	6.125	.000
50. Gender equity instruction of young children was a major consideration in my early childhood program	M 2.34 SD 1.06	2.67 .80	2.020	.046
51. My early childhood program provided me with the necessary tools to identify gender blindness in my curriculum.	M 2.38 SD 1.06	2.94 .88	3.226	.002
52. My teacher education program has helped me to evaluate my own gender bias	M 2.49 SD 1.26	3.12 .83	3.368	.001
Average Total Score Program Assessment	M 2.38 SD .87	2.95 .64	4.226	.000

Research Question Two

The second research question dealt with the difference between freshmen and student teachers in their assessment of the extent to which their early childhood program addressed gender equity. The participants were asked to respond to the five items on a frequency scale of (1) none, (2) minimal, (3) some, (4) adequate, (5) extensive.

Four out of the five program items indicated a statistical difference existing between the two groups. On Item 49: I have developed effective classroom strategies for dealing with gender bias, the level of significance was at the .000 level. The freshmen mean was 2.19 and the student teacher mean was 3.24. The seniors indicated that they were better prepared in this area than the freshmen did.

On item 50: gender equity instruction of young children was a major consideration in my early childhood program, a significant difference computed at .046. The mean of the freshmen was 2.34 and the mean for the student teachers was 2.67. T-value was 2.020. Again the seniors indicated greater preparation on this item than did the freshmen.

On Item 51: my early childhood program provided me with the necessary tools to identify gender blindness in my classroom, a difference was found at the .002 level of significance. The freshmen mean was 2.38 and the student teacher mean was 2.94. The t-value was 3.226. Student teachers

indicated a greater preparation in their program than did the freshmen students.

The last item that showed a significance difference was item 52. my teacher education program has helped me to evaluate my own gender bias the t-value of 4.226 was significant at the .000 level. The freshmen mean was 2,38 and the student teacher mean was 2.95. There was a statistically significant difference on 80% of the statements in the program section. Student teachers indicated a greater extent of preparation in instruction, strategies and tools for effectively dealing with gender issues than did the freshmen. The only item that did not show significance was item 48: I have studied gender equity in my early childhood program.

Although the student teachers showed a greater preparedness for this specific role in education, neither group was in the adequate category on the scale. The data analyzed reveals that both groups, freshmen and student teachers, were in the (some) instruction category when assessing their teacher education program. See Table IX.

TABLE X
T-Tests Results on Knowledge Based Items

	FRESHMEN N=78	STUDENT TEACHERS N=49	T-VALUE	LEVEL OF SIGNIFICANCE
TOTAL SCORE Knowledge (True-False)	M 5.4872 SD 1.6806	5.7755 1.8626	.902	.369
TOTAL SCORE Knowledge (Multiple Choice)	M 3.7564 SD 1.6371	4.2857 1.6330	1.775	.078
TOTAL SCORE Knowledge	M 9.2436 SD 2.4077	10.0612 2.2399	1.913	.058

Research Question Three

The third research question dealt with the knowledge base scores on gender equity between entering freshmen early childhood students and student teachers.

The total score for the 9 true and false items, revealed that the student teachers showed a higher score on this part of the knowledge section than did the freshmen. The student teacher mean was 5.7755 and the freshmen mean was 5.4872. The student teachers total score for the 10 multiple choice items indicated a higher result. The mean was 4.2857 for the student teachers and 3.7564 for the freshmen. The total knowledge score for

the student teachers was a mean of 10.0612 and the total knowledge score for the freshmen was a mean of 9.2536. There was no statistically significant difference in the knowledge section of the instrument. X.

TABLE XI
True and False Questions
Percentage Correct on True-False Items

	FRESHMEN N=78	STUDENT TEACHERS N=49
29. Sexual identity is a component of gender identity	76.3%	77.8%
30. Role identity is a component of sexual identity.	71.1%	75.6%
31. Children are more open to friendships with members of the other sex when they enter preschool, then when they leave.	55.3%	70.2%
32. Television programming is a powerful tool in gender training.	75.0%	87.2%
33. Where one lives defines their gender role.	25.0%	52.2%
34. Boys consistently dominate preschool, and elementary school interactions.	26.7%	17.0%
35. Men are verbally supportive of women's changing gender roles.	22.7%	17.4%
36. Women make less money doing some of the same jobs men do.	93.4%	95.7%
37. Negative stereotypes are usually untrue and harmful.	78.9%	85.1%
38. Gender and sex mean the same thing.	60.0%	68.1%

Table XI, the percentage correct on true and false items also pertains to question three. There is no difference between the knowledge base scores on gender equity between freshmen and student teachers.

Student teachers had a greater percentage of correct answers on eight true and false statements than freshmen. These items were: 29=Sexual identity is a component of gender identity; 30. =Role identity is a component of sexual identity; 31= Children are more open to friendships with members of the other sex when they enter preschool than when they leave; 32= Television is a powerful tool in gender training; 33= Where one lives defines their gender role; 36. = Women make less money doing some of the same jobs men do; 37= Negative stereotypes are usually untrue and harmful, and 38= Gender and sex mean the same thing,

The remaining two statements, the freshmen had a greater percentage correct. These true and false items were 34= boys consistently dominate preschool, and elementary school interactions. 35= men are verbally supportive of women's changing gender roles.

Three quarters of the item statements analyzed indicate that the seniors had a greater percentage of correct answers. When the T-test analysis was run on the total score for this true and false section however, it revealed a t-value of .902 and a level of significance at .369. See Table XI.

TABLE XII
Percentage Correct of Multiple Choice Items

	FRESHMEN N=78	STUDENT TEACHERS N=49
39. Gender roles are: 2. Learned 3. Hereditary 4. Both	28.2%	40.8%
1. Who reinforces gender behavior more in children? 1. Mothers more than fathers 2. Fathers more than mothers 3. Mothers and fathers equally	38.5%	32.7%
2. The timeline for understanding what it means to be a boy or a girl develops between 13. 1-2 years of age 14. 1-2 years of age 15. 2-7 years of age 16. 5-7 years of age	39.7%	40.8%
3. At what age do children reinforce their peers for gender appropriate play? 1. 1 year of age 2. 2 years of age 3. 3 years of age 4. 4 years of age 5. 5 years of age	33.8%	34.7%
4. Which child is most likely to receive positive teacher attention? 24. Susie who demands the attention	13.3%	25.0%

25. Bill who politely asks for the attention 26. Bob who demands the attention 27. Betty who politely asks for the attention		
	FRESHMEN N=78	STUDENT TEACHERS N=49
5. Teachers respond more frequently to: 1. Males in the classroom 2. Females in the classroom 3. Equally to both	32.5%	54.2%
6. Parents are more accepting of cross gender behavior in: 8. Their daughters 9. Their sons 10. Equally to both sexes	80.5%	85.7%
7. Teacher time is demanded more by 6. Girls in the classroom 7. Boys in the classroom 8. Equally by both sexes	46.2%	51.0%
8. In children's literature: 26. There is an equal distribution of females and males in main character roles 27. Boys outnumber girls in main character roles 28. Girls outnumber boys in main character roles	41.6%	58.3%

Table XII is also in reference to research question 3. There is no difference between the knowledge base scores on gender equity between entering freshmen early childhood students and student teachers. Nine questions were asked on the multiple-choice section of the instrument. Of the

nine questions, the student teachers had a greater percentage of correct answers on eight of the statements. See Table XII.

The only item that the freshmen students had a greater percentage of correct answers was item 40: who reinforces gender behavior more in children? Mothers, fathers, or mother and fathers equally. In the multiple choice section the student response of the seniors while correct more often than the freshmen were never above 50%. The researcher concludes that there was again little or no evidence of growth in the knowledge questions pertaining to gender issues.

The reliability of the knowledge items (10 true and false and 9 multiple choice) was .320 using the Kuder-Richardson on all 180 majors who participated in the study. The Kuder-Richardson is based on the proportion of persons passing each item and the standard deviation of the total scores. The estimates of reliability provide information about the degree to which the items in the assessment measure similar characteristics.

TABLE XIII
Significant Difference in Attitudes between Male and Female
ECE Students

QUESTION	MALE N=28	FEMALE N=152	T-VALUE	LEVEL OF SIGNIFICANCE
2. At times I have been rewarded for my appearance, rather than skills and competencies.	4.68	5.80	2.475	.014
5. Teachers accept girls displaying masculine behavior more easily than boys displaying feminine behavior.	7.11	6.10	-2.721	.007
7. Boys should be encouraged take on caregiver roles within the family.	2.86	2.05	-2.721	.006
11. Women are stronger in character than men.	6.14	5.23	-2.351	.02
17. My teacher education program should teach more about gender equity in the classroom.	5.54	6.34	2.206	.029
20. I would raise my daughter, the same way I would raise my son.	5.00	3.65	-2.976	.003
22. Girls should participate in activities that encourage spatial exploration.	3.86	3.03	-2.441	.016

Research Question Four

To answer research question four, there is no difference between male and female early childhood education majors on attitudes regarding gender, the mean, standard deviation, t-value and level of significance were calculated. There were four reversal statements in this section.

On item 7: boys should be encouraged to take on caregiver roles within the family, the female mean was 2.05 and the male mean was 2.86. This indicated that the females were more gender sensitive to this statement at the level of significance at .006. On item 11: women are stronger in character than men, the males agreed more than the females with a mean of 6.14 compared to 5.23. At the .02 level of significance. This item was reversed.

Item 20, I would raise my daughter, the same way I would raise my son indicated an interesting result. The females were more gender sensitive to this statement with a mean of 3.65, while the males were uncertain with a 5.00 mean. The last reversal statement was item 22: girls should participate in activities that encourage spatial exploration. Females showed more gender sensitivity to this item, with a mean of 3.03, compared to the male mean at 3.86.

Male students agreed more than females on statements 5: teachers accept girls displaying masculine behavior more easily than boys displaying

feminine behavior. The mean was 7.11 for the males, and a mean of 6.10 for the females. It was statistically significant at the .007 level.

On item 2: at times I have been rewarded for my appearance, rather than skills and competencies, the females showed greater gender sensitivity.

Their mean was 5.80, while the male mean of the men was 4.68. The level of significance was .014.

In item 17, again the women show greater sensitivity to gender issues. The statement, my teacher education program should teach more about gender equity in the classroom, drew more support from the females students with a 6.34 mean, compared to the males mean at 5.54. See Table XIII.

Discussion

The researchers primary intent was to identify the perceptions on gender that freshmen and student teachers have using an attitude gender survey. Additionally the secondary expectation was to compare the growth that UW-Stout students have in regard to attitudes and gender sensitivity. Third to evaluate student knowledge in respect to gender and fourth to evaluate the student's education instruction as it applies to gender issues.

Seventy-eight freshmen and forty-nine student teachers took part in the survey the first semester of the year 2000. It was a comparative study given to the freshmen entering the program and to the seniors nearing their completion of studies. UW-Stout's Early Childhood

Education program is designed to educate students and prepare them to work with children from birth through grade three.

A child's understanding of what it means to be a boy or a girl develops between the ages of 2 and 7 years (Kohlberg, 1966; Fagot & Kohlberg, 1982). This timeline in gender acquisition is what makes it so relevant to early childhood education and more specifically the relevance to the Early Childhood program at UW-Stout.

Stereotypes are destructive because they imply that there are certain options open to individuals and not to others. These socially imposed gender role stereotypes create inequalities and are limiting behaviors and opportunities for all. Home and school environments are vehicles by which stereotyped images are encouraged. While we are somewhat limited at positively effecting student's home environments, we can impact school settings, instruction and communication. We can educate our preservice teachers to be equitable, instructors. To encourage all university students to expose their students to instruction that crosses gender lines and opens opportunities beyond the stereotypical norm and expectations.

Ceridian Performance partners: 1998 states, that by the age of five, preschoolers are strongly influenced by societal norms for gender behavior and accept that girls and boys do different things. For instance, a boy might say that girls can't play in the wood working area; a girl might say a boy can't play in the dress up corner.

Item 24 on the attitude survey states that: girls spend more time in the art area than boys. This statement showed a significant difference between the freshmen and student teachers at the .037 level. In another item statement, 18: boys are encouraged to play in the dramatic play corner of the classroom the statement was significant at the .000 level. Once again the student teacher's gender perceptions are more aware than are the freshmen. Item 22; girls should participate in activities that encourage spatial exploration computed at a .001 level of significance. Another statement that indicates that the student teachers are more sensitive to this gender issues than the introductory freshmen students. We would like to think that the teacher education program has somewhat of an influence on the perceived sensitivity of the student teachers. That something we are doing in our instruction and modeling has an effect on the growth of these students comparatively to the freshmen students. There is an extraneous variable that could account for the increase in gender sensitivity of the senior students as opposed to the freshmen students. Perhaps age maturation is the key variable at work, the differences could be as attributable to this variable as they are to the acquisition of learned gender awareness.

Knowledge base questions are more attributed to instruction than attitudes on gender perceptions. They are not as likely to have other plausible reasons for growth other than that of being learned. On the knowledge section of the survey, the total score for the 9 true and false

items, revealed that the student teachers showed a higher score on this part of the knowledge section than did the freshmen. The student teacher total score for the 10 multiple choice items indicated a higher result as well. The total knowledge score for both sections of the survey, true and false and multiple choice for the student teachers was a mean of 10.0612 and the total knowledge score for both sections for the freshmen was a mean of 9.2536. There was no statistically significant difference in the knowledge section of the instrument. The fact that there was no significant difference between the freshmen and student teachers would strongly suggest that as students matriculate through the program, they make no significant progress in their personal knowledge base in regards to gender and gender issues.

The data indicates that the students are acquiring some gender information in their classes, perhaps intermittently in the education preparation. They receive no formal instruction in this specific area, Perhaps that has implications for future educational tendencies and would be worthy of consideration.

On the true and false items of the knowledge section Item 31; children are more open to friendships with members of the other sex when they enter preschool than when they leave, the student teachers had a greater percentage 14.9% of correct answers than did the freshmen. Greenburg (1980) suggested that early childhood teachers reevaluate existing early childhood curriculum and develop ways to prevent and remediate the

developmental deficiencies created by gender stereotyping. She forcefully argued for active intervention to remedy the cognitive, social-emotional, and physical deficits brought about by constraining gender stereotypes that limit growing children's access to specific areas of experience. According to Greenburg when children enter an early childhood environment, they are more open to friendships with members of the other sex and more open to non-stereotypic play experiences than they are when they leave.

Item 34; boys consistently dominate preschool, and elementary school interactions indicated that the freshmen had 9.7% increase of correct answers over the student teachers. A review of the literature indicated that teachers interact differently with female and male students in elementary, secondary, and postsecondary classrooms (Murphy, 1986). Teachers interact more with boys at every grade level. Participation in classroom discussion is an important element of academic achievement. In many classrooms boys talk more than girls because they are called on more often by the teacher. One way that boys get to do so much talking is by shouting out the answers without raising their hands (Sadker & Sadker, 1985).

Item 36; women make less money doing some of the same jobs men do showed that the student teachers were more aware of the answer with a 2.3% increase of correct responses. According to the U.S. Department of Commerce, 1990, women earn less than men do even when they hold

identical jobs. Female machine operators, secretaries, lawyers, and university professors all make less than their male colleagues do.

The last section of the survey dealt with the student's assessment of their education program. Of the five program items 48; I have studied gender equity in my early childhood program, 49; I have developed effective classroom strategies for dealing with gender issues, 50; gender equity instruction of young children was a major consideration in my early childhood program, 51; my early childhood program provided me with the necessary tools to identify gender blindness in my curriculum and 52; my teacher education program has helped me to evaluate my own gender bias, four out of the five items indicated a statistical difference existing between the two groups. The only item that did not show a significant difference was item 48; I have studied gender equity in my early childhood program. Although the student teacher's showed a greater preparedness for gender equity in education, neither group felt their teacher education program prepared them adequately to deal with the gender issues.

CHAPTER FIVE

Summary, Conclusions and Recommendations

This summary includes procedures and findings. Conclusions and recommendations are based on the findings of this study. The purpose of this final chapter were threefold: a) to summarize the investigation b) to draw conclusions based upon analysis of the data and c) to make recommendations for further study.

Summary

The purpose of the study was to identify the gender equity attitudes of UW-Stout students. The emphasis was to answer four research questions, which involved the relationship between selected demographic questions and either a) gender sensitive attitude statements, b) gender equity knowledge base items, or c) overall program assessment of the gender equity portion of the total early childhood education program. The main objectives were to a) determine the demographic characteristics of the students; b) examine and compare attitudes of freshmen and senior level students; c), examine and compare knowledge base of the freshmen and senior level students; and d) examine and compare program assessment of the freshmen and senior level students.

There were 179 University of Wisconsin-Stout students who were chosen to participate in the study. Each selected subject received a

questionnaire to be completed during class time in October 2000. A pilot study was done in September of 2000.

The questionnaire was developed by the researcher and was revised based on pilot study results. The questionnaire was divided into five sections. Section I contained information pertaining to the demographic data of each subject. Each respondent was asked questions regarding gender, age, and ethnic background. In addition, questions pertaining to education, classification, major, courses completed, and whether or not he or she was a transfer student were pertinent to the study. Sibling number, ordinal position, type of family structure in which the participant was raised, and whether he or she was a parent were also asked. Section II consisted of 28 gender equity attitude items based on a Likert scale from 1 (Strongly Disagree), to 5 (Undecided), to 9 (Strongly Agree).

Sections III and IV were constructed of two knowledge sections, 10 true and false questions and 9 multiple choice questions. The subjects were asked to identify the first 10 items as being either true or false and to select the best possible answer out of the available choices on the 9 multiple-choice items.

Section V was program assessment of the gender equity portion of the UW-Stout Early Childhood Program. This section consisted of five items. A frequency scale ranging from (1) none to (3) some, to (5) extensive was used to determine the students' evaluation of their teacher education program.

The response rate was 100% because in-class time was given to complete the questionnaire. The demographic data revealed that there were 78 freshmen and 49 senior level student teachers in the final analysis. The average age of the freshmen respondents was 18 years and younger, accounting for 68%. The largest age category for the student teachers was 21 and 22, representing 42.9%. There were 10.2% of students who were in the 31 or over category, and they were student teachers only. Approximately 98% of the freshmen students were younger than 22.

After the data were computed, the results were analyzed using a t-test, Cronbach's Alpha Reliability, and Kuder -Richardson Reliability test. Four research questions were developed and used as a basis for the study.

Conclusions

The conclusions based upon the analysis of the data are discussed according to each of the four research questions.

Research Question One

Research question one dealt with the significant difference between early childhood freshmen and student teachers on attitudes regarding gender. The data showed a significant difference between the two groups. The student teachers were significantly more sensitive than were the introductory students. Questions in regard to boys being encouraged to play in the dramatic corner of the classroom as well as girls being encouraged to participate in spatial relationship activities were both significant. Seniors

were also more gender sensitive than freshmen to girls spending more time in the art area than boys.

When like items were grouped together in six subscales, the analyzed data again showed that senior student teachers scored higher on their gender perception issues than the freshmen. There was a significant difference in the play subscale with a freshmen mean of 5.6462 and a student teacher mean of 4.8042. The other subscale that showed a significant difference was child rearing with the freshmen mean being 3.1795 and the student teacher mean 2.5918. The student teachers responded to this with more sensitivity than did the freshmen. The four subscales that showed no significant difference were traditional roles, gender equity, work, and appearances.

The total score for the gender equity attitude analysis showed a statistically significant difference at the .000 level. The student teachers showed greater sensitivity to gender equity attitude perceptions than freshmen.

Research Question Two

Research question two examined the assessment of their early childhood program and how well it addressed gender equity. On question 17 of section II, Attitudes, the teacher education program was addressed. On this attitude scale statement student teachers felt slightly stronger about their program's inclusion of gender equity than did the freshmen.

Looking at the program assessment items, four out of the five items found significant differences existing between the two groups. On the items, Developing effective classroom strategies for dealing with gender bias, Gender equity was a major consideration in my early childhood program. My early childhood program provided me with necessary tools to identify gender blindness in my curriculum, and My teacher education program has helped me to evaluate my own gender bias, the student teachers all felt better prepared than the freshmen. Neither group, however, felt it had adequate instruction in this area as mean scores did not reach the adequate category of 3.00 on the five-point scale.

Research Question Three

Research question three compared the knowledge base scores on gender equity between the entering freshmen and graduating seniors. The knowledge section did not prove to be statistically significant in this study. The results of the investigation revealed no evidence that would support the findings that senior students were any more informed or less informed than freshmen.

Research Question Four

Research question four examined the difference between male and female early childhood majors on attitudes regarding gender equity. The sex of the participant did not prove to be a statistically significant variable in this study. The results of the investigation revealed no evidence that would

support sensitivity to perceptions of gender equity based upon the sex of the respondents.

Recommendations for Future Research

The methodology of this investigation as well as the findings prompt several recommendations relative to research and the implementation of gender equity programs.

The following recommendations focus on areas for further study:

6. Clearly, there is a need for further research in the area of gender perceptions. Long-term research, perhaps completed by a number of masters students over a period of years, could prove useful. Do student perceptions about gender vary from their freshman to sophomore years and subsequently from sophomore to junior and then senior years? Does their university experience at UW-Stout have any significant impact on their perceptions of gender equity or are these perceptions somewhat fixed upon arrival at the university. These questions could lead to a series of research projects that more clearly define student perceptions and the university role in changing these perceptions.
7. Another line of research to evaluate is the nature of other university program efforts on influencing Early Childhood Education student attitudes towards gender equity during their undergraduate program. How do other universities address this

issue in formal instructional settings? What is "best practice" in the area of promoting a gender fair curriculum in early childhood?

8. A broader research question among university teacher education students relative to gender equity would also make for a very interesting study: How do the gender equity perceptions of early childhood majors compare and contrast to those of other teacher education majors at UW-Stout?
9. An extremely useful piece of research might be to produce and validate an instrument that practicing teachers might use to evaluate the gender fairness of instructional materials. This tool would assess all types of instructional media to ascertain if they address issues of gender in a fair, acceptable fashion.

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University of Wisconsin-Stout
Early Childhood Preservice Teacher Gender Perceptions Survey

Dear Early Childhood Preservice Teacher,

The perceptions we have about gender impacts decisions in our classrooms. I am interested in finding out how these perceptions play a part in the way we teach, and the implications they have for our students. To learn more about this issue, I have compiled an instrument of attitudes and knowledge based questions on this subject. I am gathering data from preservice teachers at UW-Stout.

I would very much appreciate it if you would participate in this study. Please take about 20 minutes to complete this survey. Return the completed survey to the classroom professor. Your answers will be confidential and anonymous. The following statement is the university's official assurance that your participation is both valued and protected.

I understand that by returning this questionnaire, I am giving my informed consent as a participating volunteer in this study. I understand the basic nature of the study and agree that any potential risks are exceedingly small. I also understand the potential benefits that might be realized from the successful completion of this study. I am aware that the information is being sought in a specific manner so that no identifiers are needed and so that the confidentiality is guaranteed. I realize that I have the right to refuse to participate and that my right to withdraw from participation at any time during the study will be respected with no coercion or prejudice.

I would be happy to talk with you about the results of this survey when the study has been completed. Please feel free to contact me about the results of the survey.

Thank you for your help on this important project!

Maureen Hendricks
St. Joseph's School
Menomonie, Wisconsin
715-235-4509

Questions or concerns about participation in this research may also be addressed to Ted Knous, Chair, UW -Stout Institutional Review Board for the Protection of Human Subjects in Research, 11 HH,UW-Stout, Menomonie, WI 54751, phone 715-232-1126.

Appendix A

Gender Perceptions Survey

This questionnaire is part of a study designed to explore the gender perceptions of Stout students enrolled in the Early Childhood major at UW-Stout. **Do not write your name on the survey.** The questionnaire is completely anonymous. Please answer all of the following questions to the best of your ability.

Section I: Demographic Data

26. Gender
 Female
 Male
2. Age Category
 17 20 23 31-35
 18 21 24 36-40
 19 22 25-30 41 or older
3. I am classified as a:
 Freshman Junior
 Sophomore Senior
4. Are you a transfer student? No
 Yes If yes, how many credits do you have? _____
5. My major is:
 Early Childhood Education
 Human Development and Family Studies
 Family and Consumer Science Education
 Other- please list _____
6. I have completed the following classes (please check all that apply)
 EDUC-303 Educational Psychology
 HDFL-115 Individual and Family Relations
 HDFL-124 Human Development: Early Child
7. My ethnic background is
 Latino White Black
 Asian American Indian
 Other _____

1. I have _____ brothers and/or sisters _____ (indicate number of each)
9. I am the : (check one)
 _____ oldest child in the family
 _____ middle child in the family
 _____ youngest child in the family
10. I was raised : (check one)
 _____ in a single parent family
 _____ in a family with both parents
 _____ in a "remarried" family
 _____ by other relatives or a guardian
11. I am a parent
 _____ no
 _____ yes If yes, list ages of all children _____

Section II: Attitudes

Indicate the extent to which you agree with each of the attitude statements below by selecting a number from **1 to 9**.

If you strongly agree with the statement, enter a **9**. If you strongly disagree, enter a **1**. If your feelings are not as strong, select a number **between 1 and 9**.

Consider each statement carefully, but make your choice as rapidly as you can. There are no right answers. The best responses are your personal opinions. Remember to answer all of the questions.

1	2	3	4	5	6	7	8	9
Strongly Disagree		Slightly Disagree		Undecided		Slightly Agree		Strongly Agree

EXAMPLE: 6 1. High school girls should be offered football as a sport choice.

1. _____ Boys do not choose certain activities for fear of being teased.
2. _____ At times I have been rewarded for my appearance, rather than skills and competencies.

3. ____ Mothers of young children should not be employed in or outside of the home.

9. **R** Men demonstrate support for women who take on roles that are traditionally male.

1 2 3 4 5 6 7 8 9

Strongly Slightly Undecided Slightly Strongly

Disagree Disagree Agree Agree

10. ____ Teachers accept girls displaying masculine behavior more easily than boys displaying feminine behavior.

6. ____ Women are expected to be more nurturing than men.

7. **R** Boys should be encouraged take on caregiver roles within the family.

8. ____ I would rather work for a man than a woman.

4. **R** Children's literature reflects the conditions and contributions of women in today's society.

5. ____ Children prefer playing with toys that are typically associated with their gender.

11. **R** Women are stronger in character than men.

12. ____ Women are still responsible for most household work, while men "help out".

13. ____ Boys are more physically active in the classroom than girls.

14. ____ Young girls prefer to play with girls.

15. ____ Women, who do not show much warmth, are looked down upon.

4. ____ Men are considered the primary family earners.

17. ____ My teacher education program should teach more about gender equity in the classroom.

18. R Boys are encouraged to play in the dramatic play corner of the classroom.
19. Men are typically chosen for leadership roles over women.
20. R I would raise my daughter, the same way I would raise my son.
5. I would prefer having a male teacher.

1 2 3 4 5 6 7 8 9

Strongly **Slightly** **Undecided** **Slightly**

Strongly

Disagree

Disagree

Agree

Agree

22. R Girls should participate in activities that encourage spatial exploration.
23. Men are more authoritarian than women in their interpersonal relationships.
24. Girls spend more time in the art area than boys.
25. The gender of my teacher makes no difference to me.
26. Boys hide their emotions.
27. R Girls talk louder in the classroom than boys.
11. Fathers get more upset if their son acts like a sissy, than if their daughter acts like a tomboy.

Section III: Knowledge Based Questions

True or False

29. Sexual identity is a component of gender identity.
30. Role identity is a component of sexual identity.

9. ____ Children are more open to friendships with members of the other sex when they enter preschool, then when they leave.
32. ____ Television programming is a powerful tool in gender training.
33. ____ Where one lives defines their gender role.
34. ____ Boys consistently dominate preschool, and elementary school interactions.
35. ____ Men are verbally supportive of women's changing gender roles.
36. ____ Women make less money doing some of the same jobs men do.
37. ____ Negative stereotypes are usually untrue and harmful.
4. ____ Gender and sex mean the same thing.

Section IV: Multiple Choice (select the best answer)

- ____ 39. Gender roles are:
A. Learned
B. Hereditary
C. Both
- ____ 40.. Who reinforces gender behavior more in their children?
A. Mothers more than fathers
B. Fathers more than mothers
C. Mothers and fathers equally
- ____ 41.. The timeline for understanding what it means to be a boy or a girl develops :
A. 1-2 years of age
B. 2-4 years of age
C. 2-7 years of age
D. 5-7 years of age
- ____ 42. At what age do children reinforce their peers for gender appropriate play?
A. 1 year of age
B. 2 years of age
C. 3 years of age
D. 4 years of age
E. 5 years of age
- ____ 43. Which child is most likely to receive positive teacher attention?

- A. Susie who demands the attention
- B. Bill who politely asks for the attention
- C. Bob who demands the attention
- D. Betty who politely asks for the attention

- _____ 44. Teachers respond more frequently to:
- A. Males in the classroom
 - B. Females in the classroom
15. Equally to b
16. oth sexes
- _____ 45. Parents are more accepting of cross gender behavior in
- A. Their daughters
 - B. Their sons
 - C. Equally to both sexes
- _____ 46. Teacher time is demanded more by
- 10. Girls in the classroom
 - 11. Boys in the classroom
 - 12. Equally by both sexes
- _____ 47.. In children's literature:
- A. There is an equal distribution of females and males in main character roles
 - B. Boys outnumber girls in main character roles
 - C. Girls outnumber boys in main character roles

Section V: Program Assessment

Indicate the extent to which you agree with the statement by selecting a number from 1 to 5.

1	2	3	4	5
None	Minimal	Some	Adequate	Extensive

48. _____ I have studied gender equity in my early childhood program.

29. _____ I have developed effective classroom strategies for dealing with gender bias.

30. _____ Gender equity instruction of young children was a major consideration in my early childhood program.
51. _____ My early childhood program provided me with the necessary tools to identify gender blindness in my curriculum.
52. _____ My teacher education program has helped me to evaluate my own gender bias.