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Pre-service Teachers' Knowledge, Attitudes, and Perceptions of Gender in the Classroom

By

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An Undergraduate Thesis Submitted in Partial Fulfillment

of the Requirements for the

University Honors in Discipline in Education Program

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Contents

Abstract	3
Chapter One	4
Introduction	4
Key Definitions Section	5
Chapter Two.....	7
Literature Review	7
Gender vs. Sex	7
Gender Expression in Children	8
How Gender Stereotypes Impact Children in Schools	9
Teacher Education.....	10
Best Practice in Gender Equity.....	11
Chapter Three.....	13
Methods.....	13
Research approval	13
Participants.....	13
Gathering of participants	14
Method of research.....	14
Data analysis	15
Chapter Four	17
Results	17
Participants.....	17
Question Responses.....	17
Themes from Responses.....	20

Chapter Five.....	22
Discussion	22
Theme 1: Misconceptions about the definition of gender	22
Theme 2: Conflicting views on the origin of gender roles	23
Theme 3: Spectrum of plans regarding gender equality in future classrooms.....	25
Suggestions for Teachers Seeking Best Practices in Gender Equity	26
Strengths of the Study	26
Limitations of the Study	27
Future Research.....	27
Conclusion.....	27
References	29
Appendix	31

Abstract

This qualitative study examined the knowledge of gender definitions and attitudes toward gender that pre-service teacher candidates possess. Participants were students in an undergraduate elementary education program at a southeastern university. The participants responded to an open-ended paper survey. The survey consisted of questions asking about the definition of gender, gender roles, perceived differences between boys and girls, as well as plans for their future classrooms. Data was analyzed through a qualitative lens with the development of codes, categories, and themes. Responses varied, but the overall data suggested that teacher candidates have misconceptions about the definitions of gender, conflicting views on the origins of gender roles, and a spectrum of plans for gender inclusion and equality going forward in their future classrooms.

Chapter One

Introduction

Teachers are some of the most influential people in children's lives. The ways that they view their students, whether consciously or subconsciously, may influence the children they teach in significant ways. Because of this, it is important that teachers have open and egalitarian views of gender in relation to the students in their classrooms. The way that children perceive their own gender identity and stereotypes about gender can have a notable impact on their psychological wellbeing, both as children and into their future adult life. The institution of education has always been gendered, and though we have been working to change that in recent years the current students are still being impacted (Ridgeway, 2008). Because gender is a factor in all of society, adults bring their biases and expectations into schools with them and pass them on to kids. This can be everything from "boys vs. girls" matchups that accentuate differences and ask for competition, to the subtle fact that teachers tend to ask more math and science questions of boys and more reading and language arts questions of girls. In many pathways in life boys and girls are shown their differences (Denny, 2011). By reinforcing, whether unintentionally or on purpose, these differences in schools we risk the potential of raising adults who are more focused on differences than similarities in gender, and may instill an "us vs. them" mentality. This is harmful for those students and for all of society.

Because of this influence that teachers have regarding gender stereotypes, it is of utmost importance that teachers eliminate their own bias and use of harmful stereotypes about gender and have a good understanding of what gender is and how messages about gender are communicated to students. This education does not happen on its own. Teachers may need significant opportunities to be taught how to alter their thinking and strategies to put away the

stereotypes that society, and possibly teachers in past years, have put into their minds. This may suggest that the best place to start this process is in teacher education, with pre-service teachers. These future teachers are in the best position to learn about gender, and to address and discard harmful stereotypes before they enter the classroom.

The goal of this study was to find out what pre-service teachers know about gender and their attitudes and stereotypes about gender. This was studied using a survey given to teacher candidates. The results were analyzed and coded using a qualitative tradition and discussed later in this paper. The research questions guiding this study are:

- What definitions do preservice teachers have about gender?
- What attitudes and stereotypes do preservice teachers have about gender?

The literature supporting this study operates under the mindset that boys and girls, and men and women, are equal in all areas. It also uses the psychological definition of gender, which is a separate definition from the biological definition of sex. Sex is defined by a person's chromosomes (Carl, 2012) while gender is defined by the gender schema that that has developed (Carl, 2012). A glossary of key terminology used in this study is outlined below.

Key Definitions Section

Gender: refers to the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex. (APA, 2012)

Sex: typically assigned at birth (or before during ultrasound) based on the appearance of external genitalia. (APA, 2012)

Teacher Education: The process of educating pre-service teachers to become teachers.

Cisgender: An adjective used to describe a person whose gender identity and gender expression align with sex assigned at birth. (APA, 2012)

Heteronormativity: The view of heterosexual relationships as the “norm” and anything else being “abnormal.”

Gender Equity: Equitable service to all genders, which may mean working harder for the under-represented one.

Chapter Two

Literature Review

This study seeks to understand what pre-service elementary teachers going into the teaching profession know about gender, and what stereotypes and attitudes toward gender they hold in order to challenge the stereotypical views of gender that are being taught in our classrooms through overt and hidden curriculums. The foundational research in this literature review will therefore be focused on previous studies about how children learn about gender, gender expression, how stereotypes about gender impact children, studies that have examined the existing teacher knowledge about gender issues in the classroom, and best practices for gender-inclusive classrooms.

Gender vs. Sex

Gender and sex are often used as synonyms in everyday life, but this is not the case and is harmful to people who do not conform to gender stereotypes or who identify beyond the binary gender spectrum. The definition of sex refers to the biological makeup that you are born with, while gender is a societal construct that assigns roles and attitudes to people of the binary genders (Carl, 2012). While we do not see many cases of transgender and non-binary gendered children in elementary school classrooms, making this distinction between sex and gender is still of utmost importance. First, because these cases of children exploring their identity as a young age can still occur and teachers must be open and willing to address that child's distinct needs. Second, because the children that are being taught today are the adults of tomorrow. How the adults in their life view gender will impact how they view themselves, their gender, and the gender of others in the future. Even in the most open-minded of schools, we have the capacity to push gender messages onto children. For example, during mothers' and fathers' day ceremonies,

we often act very differently depending on the gender of the parent. We may give a rose and a poem to a mother while we give a t-shirt to a father (Carl, 2012). Carl (2012) further suggests that this potentially shows children that their fathers do not need the caring affection that they may give to their mothers, which is very harmful to both the fathers and the little boys that are being taught that they do not deserve overt affection.

Gender Expression in Children

Children begin to express gender at around age two and have developed a gender schema by around age four (Martin & Ruble, 2004). However, their adherence to gender norms and gender stereotypes changes over time, and their opinions about the other gender vary wildly with age. Children look to adults to understand how people of their gender are supposed to act, and absorb everything around them in order to figure this out. This suggests that they can end up absorbing messages and behaviors that we do not consciously intend for them to take in.

For instance, traditionally boys are taught to be more individualistic, rustic, and active, whereas girls are usually taught to be more artistic, caring, and group minded (Denny, 2011). Ironically, boys are then encouraged to pursue sports, which are very often team and group oriented, while girls are encouraged to draw, read, and craft, which are more individual hobbies. These traditional notions of gender roles are outdated and teaches stereotypical gender view that are not necessary and sometimes even harmful to children. These predetermined gender roles are communicated to them by adults are often reinforced even when not intended.

Luria & Herzog (1991) suggest that school-age children tend to separate into same-sex groups and conform to stereotypical gender roles, with boys more likely to play with automobiles, rockets, and other things that are considered “manly” while girls are more likely to play with supermarket items, home life scenarios, and child-rearing toys. This separation can be

harmful to students who would rather play with the other set of toys, but feel pressured by the group to act like the rest of their gender. This can have lasting effects on the child's life and on society.

How Gender Stereotypes Impact Children in Schools

Gender stereotypes have been part of society and American public schools since they were founded (Hansot & Tyack, 1988). Although there has been a significant effort to get more girls into STEM courses in recent years, this is not enough to combat the years of gender biased teaching and the societal gender norms that are taught in the overt and hidden curriculums in schools. While we encourage children of both genders on the surface to go into fields of science, literature, and math, it is in after school programs and much of outside-of-school life that the traditional gender norms are taught and enforced by adults with implicit biases and views about gender (Luria & Herzog, 1991; Denny 2011). These gender norms teach children that boys are better at science and math, while girls are better at reading and social studies. They are encouraged to go into fields that are already dominated by their gender in order to “fit in,” and this impacts them and society.

Nearly everything in society is in some way impacted by gender, down to the language that is used in everyday life. Phrases that students hear on an almost daily basis such as “policeman,” “mailman,” “playing like a girl,” “man up,” and others shape how they view themselves and their classmates (Ridgeway, 2008). This in turn impacts how they express themselves in order to fit in, which may pressure them to not try as hard in subjects that they are “not supposed” to be good at. If boys in gym class are being told to “stop throwing like a girl,” then the girls may not try very hard to be good at gym. They may believe that just by being female, they are less than the boys in some areas. Alternatively, if a teacher says “whose paper is

this, the handwriting is pretty so I bet it's a girl's", this potentially suggests to boys that they do not have to work as hard at penmanship because boys are just bad at it. Neither of these assumptions are true, but they are being taught in schools and in society nonetheless (Ridgeway, 2008). Assumptions like these harm students of all genders throughout their school careers. Decreasing the prevalence of these stereotypes would benefit students. In one study, it was found that in middle school classrooms, only pictures of male scientists were found in science classrooms and there were even posters overtly sexualizing women in the math classroom. (Shurmak & Ratliff, 1994)

Teacher Education

Adults need to learn about gender and gender roles just as children do, but are potentially more set in their ways when it comes to changing their minds. This may suggest that they need to be provided opportunities to become more educated about gender roles, the many forms and ways that sexism can take, and the harm that it can do to children, adults, and society. This is not without challenges. O'Neil & Carroll (1988) found in their study on gender roles and sexism conducted for adults at a university, that the majority of adults experienced stress and self-reported crying due to pain that the workshop caused them. This could indicate that adults are not up to date about the changing understandings and definitions of gender, and that gaining an understanding of those new ideas about gender could cause them pain. It would be perhaps more helpful to teach children about gender, rather than having them wait until they are adults to learn brand new things about themselves and those they are closest too. Despite the pain it caused them, the adults in O'Neil & Carroll (1998) study also reported better relationships with their significant others' and parents due to their new knowledge. They suggested that learning about gender roles and sexism is productive and helpful for adults.

Teachers, outside of parents and guardians, spend the majority of their time working with children and would be in a position to build new understandings of gender and gender roles with young students. Typically, teachers spend four years at college in preparation for becoming a teacher. Currently, there are few programs in teacher education that focus on diversity. Those that do exist focus more on racism than sexism and rights for students who are not on the binary gender spectrum. Many studies that have been conducted about preparing teachers for diversity in classrooms only focus on this level of diversity. (Liou & Hermanns, 2017) More focus on the teaching of diversity of gender and sexism is needed.

Best Practice in Gender Equity

In 2019, Souto-Manning and Lanza did a study on how to “queer” elementary school classrooms and begin to break down gender stereotypes in young students. They have many different ways of doing this. To start, the teacher never uses “boys and girls” as a way to separate or call on students, but rather uses “friends” as a gender-neutral term. She also tells students to use “whichever bathroom most closely matches the gender you identify with.” These small changes may change the way her students see the world. During the school rummage sale, her class championed sorting clothes only by size for sale, rather than by gender. She also refers to parents as “the grown-ups at home” thus including single parents, grandparents, and same-sex parents in her statements rather than assuming that all students have a mother and a father at home. These changes are small and simple, but may mean the world to students who have non gender normative identities, or have parents who are not heteronormative. In the teaching side of things, the teacher in this study asks her students to look at who is being represented in each book that they read. The students can then explore the culture of cis and hetero-normativity through this lens, rather than seeing it as simply the way the world works. Another way that

teachers can make sure their classroom is gender equitable is to be prepared to address non-equitable language that their students may say or bring up. Teachers having a plan may makes it less likely that non-equitable language passes in the classroom without being addressed.

(Hansen, 2015) The same study also asks teachers to have resources ready to give students and families if the need arises, and information to help them understand the goals of the gender neutral classroom. By following what these studies suggest, teachers can do their best to ensure a classroom that is equitable to all genders, sexualities, and family types.

Chapter Three

Methods

This chapter discusses the research methods used to collect and analyze data for this thesis. Survey design, participant population, participant confidentiality, and data analysis are all discussed in this section.

The research questions guiding this study include:

- What definitions do preservice teachers have about gender?
- What attitudes and stereotypes do preservice teachers have about gender?

Research approval

Prior to conducting any research, the principle investigator and the thesis advisor completed all the necessary human-subject research paperwork to submit to the IRB at the supporting university. The proposed research was granted exempt approval due to the lack of identifying information being asked of the adult participants. After this approval was received, the principle investigator began to gather data.

Participants

The participants of this study were elementary education teacher candidates partway through their senior year at the supporting university. All pre-service teachers during this senior year spent time in local elementary classrooms as a part of their coursework. This allowed them to have had experience working in classrooms with children before answering the survey questions. This purposeful sample population was selected due to their status as pre-service teachers, and their beginning experience working with children.

For confidentiality purposes, participants were asked to not put their name or any identifying information on the surveys. The informed consent document was attached to the front of each survey, and by continuing, they provided their consent. The only people who received access to the responses were the primary investigator and thesis advisor, and the author of each survey was unknown.

Gathering of participants

To gather these participants, the principle investigator and the thesis advisor visited the classes with the permission of that classes' instructor. A script was read to the potential participants informing them of the purpose of the study and an invitation to participate. The principal investigator shared that this survey was completely confidential and voluntary and passed out the survey. Of the 40 students in these classes, 37 filled out the survey. The script that the principle investigator read out to each group of participants, and the informed consent letter that the participants read, are included in the appendix.

Method of research

Data was gathered via a written survey given out to students during their regular class time, and they were given about 20 minutes to complete it. The survey consisted of nine short response questions, and was one page in length. The survey questions asked participants about their knowledge of the definitions of sex and gender, their opinions on different aspects of different genders related to personality and asked about future plans for the participants' classrooms regarding gender equality. After providing responses to any or all of the questions, or not responding at all, the students handed in their surveys with the informed consent covering the answers to prevent any loss of confidentiality due to handwriting. The surveys were then placed in a folder and transported to the home of the principle investigator.

Data analysis

For this project, a qualitative lens was chosen to analyze the data. Qualitative means that we rely heavily on human perception and understanding to produce scientific works. (Stake, 2010) This was necessary for this project as a quantitative survey, such as a Likert scale, would not capture the “human aspect” of the participants that seemed necessary to draw out the true answers and feelings that they had. On a simpler, more quantitative questionnaire, it would have been much easier for them to answer how they felt they were “supposed to” answer, or simply answer neutrally to questions they were not sure about. By writing out their answers, the participants were made to think more deeply about their answers and thus we received answers more accurate to their thoughts and feelings. Different science is needed for different situations, and thus qualitative research is needed for some topics while quantitative works for others. (Stake,2010)

The 37 responses were analyzed by the principle investigator for similarities, differences, links between the questions, and links between the surveys. They were coded quantitatively, with the number of surveys than answered each question a certain way being counted, and qualitatively, with the words being used and experiences being written about analyzed. Different colors were used to code different topics such as the mentions of God, statements suggesting that boys and girls are different, or that gender is “as you were born” or the same as biological sex, that gender is enforced by society, and that hormones cause differences in girls and boys. Any actionable plans were also highlighted. Each of these codes were then analyzed through In Vivo coding, with quotes from the surveys being used to describe each of the overall responses to each question. This was then used to find the three themes that are discussed later in this paper. In this case, In Vivo coding was used to summarize or condense the data in order to turn the 37 survey

responses into a cohesive format. In Vivo coding is often used in this way. (Saldaña, 2016) The survey questions are included in the appendix, and outlined in the following section.

Chapter Four

Results

This chapter covers the participants, the survey questions given to participants, and the findings of the study. It is presented in two parts; the first part being a breakdown of each question asked on the survey and the percentages of participants that answered each way, the second part being a discussion the themes that come from the questions asked.

Participants

Out of the 40 pre-service teachers asked to complete the survey, 37 responded, giving a 92.5% response rate. 36 of the participants responded to every question, with one participant not answering question two. Numbers were assigned to each survey for coding purposes and for tracking participant comments.

Question Responses

This section will break down the survey question by question, and provide both general descriptive statistics about participants' general responses for each question.

Question 1: What is the definition of gender?

Twenty of the 37 participants, or about 54%, responded that gender is the sex which you are born. Many stated that "gender is male or female and is assigned at birth" (survey 1). Twelve participants, or 32.4%, stated that gender is how you identify. The remaining five responses stated that gender was a result of stereotypes placed on us by society. For example, survey 13 said "gender is a societal construct assigned to people as a relative descriptor."

Question 2: Are gender and biological sex the same thing? Please explain.

Nineteen participants, or 51%, answered yes, while the other 17 or 46% answered no. One participant did not answer this question. Here many of the responses were closely linked to what the respondent answered for question 1. For example, survey 13, which stated that gender is a social construct in question 1, answered “no, gender is created by society, while biological sex is determined by the reproductive organs you were born with.” However, in survey 3, which stated that gender is the same as sex in question 1, answered “yes, either a person is male or female and either you are born with an xy or xx chromosome.”

Question 3: Do you believe gender roles are learned or innate? Please explain.

Sixteen surveys answered that gender roles were learned, while seven answered that they were innate. The remaining 12 answered that they were a mixture of both, stating things such as “from birth they have the makings of whatever gender but they learn behaviors from those around them” (survey 12). Some that stated that it was innate related it to a higher power, such as survey 14: “God makes you specifically as a male or female.” The majority, however, said that gender roles were learned, and influenced by our parents, school life, and other people as we grow up.

Question 4: Have you ever found yourself thinking “boys will be boys” on the playground?

Twenty-five respondents answered yes to this question. Some did not elaborate, but others did, providing insight that they think boys roughhouse more, or just play more messily in general. The remaining 12 answered no, and were often vehement that they did not like this saying and that boys should be held accountable. For example, survey 25 says “no. I think this is a stupid saying. We should raise both genders to be respectful.” If they stated no, they were more likely to elaborate.

Question 5: Are girls more emotional than boys? Why?

Twenty-one surveys stated yes, while 12 stated no and four said that it depends on the situation. However, many of the surveys that stated yes said it was because society tells girls to be more emotional, while boys are taught to hide their emotions. Many of the others stated hormones as the reason, often simply stating it as a single word or just “we girls have hormones.” (survey 24)

Question 6: Do you believe men and women have different academic strengths?

Far fewer people answered yes for this question, with only nine saying yes and 27 saying no. Most stated “I think it varies individual to individual” (survey 28) or something similar. The respondents that answered yes did not give any explanation, just answered with a single word.

Question 7: Are boys typically less organized than girls? Please give an example.

Tenty-two surveys answered affirmatively for this question, with 15 answering negatively. Most gave examples of boys having messier lockers, or simply “shoving papers into their backpacks” while girls had neater lockers and binders. However, those that said no often said “I know girls who are super disorganized and boys that are super organized, and vice versa” (survey 25) they provided examples stating that boys and girls can often be just as disorganized, and that young people are often disorganized in general.

Question 8: Who is easier to teach in the classroom, girls or boys? Why?

This question had a much wider range of answers. Six people answered girls, three answered boys, 25 answered neither, and two answered that it depends on the subject that is

being taught. However, the majority answered that neither were easier to teach often stating that “both are hard” (survey 36).

Question 9: What are your plans for your future classroom involving gender equality?

This question, while the most open ended, had the least variance in answers. Almost every survey that answered it stated “treat each child equally” (survey 15) or “treat them like a human” (survey 37). They almost all mention respecting their students, and treating them with kindness. However, there are few actual plans for gender equality in the answers, and few action words are used.

Themes from Responses

The responses discussed above fell into three categories: first, this surveyed group of preservice teachers has many misconceptions about gender and how it is determined. This paper is operating under the academic understanding that gender is based on gender schemas and societal expectations, rather than the sex organs with which you are born, and sex is based on chromosomes. The responses reflect that the majority of the participants do not understand this. In the first two questions, approximately half of the participants answered both that gender was defined by the sex that you are born as, and that gender and biological sex are the same thing.

In the second category, the participants had conflicting views on the origin of gender roles. Though most of them answered that gender roles were learned and not innate, the majority then answered that they thought girls were more emotional than boys, and that boys are typically less organized than girls. This is especially apparent by girls’ emotions being blamed on “hormones” in many of the responses.

The third category focused on the final question, looking at the fact that the participants have a spectrum of plans for their classrooms regarding gender equality. Not many of the participants listed actionable plans for their classrooms, with the majority simply stating that they would respect their students and treat them with kindness. Of those that did list actionable plans, the majority of them were surface level, such as drawing sticks with names on them to call on students in order to avoid gender bias.

Chapter Five

Discussion

This study sought to find out the attitudes toward and knowledge of gender in preservice teachers. It was guided by these research questions:

- What definitions do preservice teachers have about gender?
- What attitudes and stereotypes do preservice teachers have about gender?

Information given in the survey responses has been divided into three themes in the previous section: that preservice teachers have misconceptions about the definition of gender, that they have conflicting views on the origin of gender roles, and that they have a spectrum of plans regarding gender equality in their future classrooms. These three themes will be discussed in this section

Theme 1: Misconceptions about the definition of gender

The misconception that gender and biological sex are the same thing was held by about half of the participants. This suggests that a large number of future teachers do not know the psychological definition of gender or that gender differs from the definition of biological sex. According to the American Psychological Association,

Gender refers to the attitudes, feelings and behaviors that a given culture associates with a person's biological sex. Behavior that is compatible with cultural expectations is referred to as gender- normative; behaviors that are viewed as incompatible with these expectations constitute gender non-conformity (APA, 2012).

This definition can be broken down. First, it states that gender is “attitudes, feelings and behaviors” and not biological chromosomes or body parts. Second, it talks about “a given culture” associating gender with a person’s biological sex. That means that it can change from

culture to culture. Biological sex, however, does not change from culture to culture. This further outlines that they cannot be the same thing. This misconception held by half of the participants may be due to a few different things. It may be a construct of religiosity. Multiple participant surveys listed God in their answers as being related to gender, and stated things such as “I believe that [sex and gender] are the same and should not be changed or questioned.” These presuppositions come from somewhere, and may have been instilled, either purposefully or unconsciously, by parents or teachers. Unraveling these beliefs through education is one opportunity available to help teacher candidates understand the current definition and psychological view of gender. Understanding this definition will allow the teacher candidates to better serve their students, because they will have a better understanding of where gender comes from. It will especially help teachers who may have a child who is gender-nonconforming, and allow them to revise their beliefs and viewpoints before this happens in order for their classroom to be a safe space for these students.

Theme 2: Conflicting views on the origin of gender roles

This theme focusses most on the responses to questions three through eight. It is interesting because on many responses, conflicting answers were given about gender roles. The majority of participants responded that gender roles were learned or a mixture of learned and innate, but their answers on the next few questions did not support or reflect that. Participants often went on to answer that they thought that girls were more emotional than boys, often stating “hormones” as the reason, and that boys were less organized than girls. Some participants stated that this was due to societal expectations, but many did not. This suggests a couple of areas of discussion. First, they may not have a good picture in their minds of what gender roles entail. Many of the pre-service teachers may have preconceived views that gender roles only cover

extreme things, such as “women belong in the kitchen” and “men are the breadwinners.”

However, this is not the case. Gender roles also imply other thoughts and behaviors such as the idea of women being more emotional than men, being expected to cry more often and being gentler with their feelings. It includes things such as the idea that women are more nurturing than men and as a result are more suited to work with children. These stereotypes are especially harmful to boys and men who are told that they need to hide their feelings so that they are not “acting like a girl.” (Carl, 2012) Preservice teachers need to understand that gender roles include these stereotypes, rather than believing that these stereotypes are true. They also would benefit by learning how to deconstruct these stereotypes in their classrooms. Teacher education programs could serve as the initial space of learning about these issues.

Secondly, this confusion in whether gender roles are truly learned or innate may show that while they are responding in the way they have been taught, they do not truly believe what they are saying. They may have been told that gender roles are learned, but have not reconciled that with how they have seen parents and teachers act throughout their lives. This cycle has an opportunity to end with preservice teachers, so that they can teach their students from a young age that they do not need to conform to traditional gender roles. Teachers need to truly believe that there are not limiting differences between boys and girls for this to happen. Otherwise, through unconscious actions and biases, they may unwittingly support gender roles in their classrooms.

One area of concern is that one fourth of the participants stated that they believe that men and women have different academic strengths. Though this was not a majority of the responses, it is a high percentage of future teachers who generally do not believe that all children can learn equitably at high levels. Education opportunities about gender for pre-service and veteran

teachers is one way to combat teachers bringing these beliefs into the classroom. Pre-service teachers need to be taught to challenge these beliefs if we want to get more women into the STEM fields and more men into the arts and humanities. (Liou & Hermanns, 2017) Teachers modeling these beliefs could lessen the possibility of students in their classrooms believing that their gender excludes them from some career choices.

Theme 3: Spectrum of plans regarding gender equality in future classrooms.

This theme is informed by the last question on the survey, which asked participants about their future plans for gender equality in their classrooms. Many participants did not have actionable plans for their classrooms as answers to this question, most simply stating that they would treat all children with respect and kindness. The participants did not address or discuss how they will challenge their own biases and articulate a thought out plan of action. Some participants stated that they would use craft sticks with names of the students on them to call on students, which is a good start as it keeps biased calling during specific subjects from happening (for example, calling on more boys during math.) However, this is a low-impact plan and does not address many of the biases that the participants showed in their answers to the other survey questions. Pre-service teachers should have opportunities to learn strategies and actionable steps and plans that will help them address biases that society holds. (Hansen, 2015) For example, making sure they have posters of men and women scientists, authors, and historical leaders equally represented in their classroom. (Shmurak & Ratliff, 1994) Only one participant in this study included actionable comments about gender-nonconforming students, stating that they would call students by their preferred name and have gender neutral restrooms. Again, teacher education is one space where pre-service teachers could be exposed to the importance of these things so that they know what to do if they have a gender non-conforming student in their

classroom. The lack of actionable plans in the participant's answers perhaps implies that they have insufficient ideas of how to create a truly equal environment for students of all genders. More education is needed in this area in order to help these future teachers understand and have concrete plans for gender equality in their classrooms.

Suggestions for Teachers Seeking Best Practices in Gender Equity

Teachers seeking a gender equitable classroom can keep up with the psychological definition of gender, and understand that gender and sex are different. They can also ensure that they have posters showing people in gender-nonconforming fields, such as female authors and male nurses, and that they showcase these people during their courses of study. They can include books that have people in roles that break gender stereotypes, such as single dads or families with same-sex parents. (Hansen, 2015) They can encourage their students to play with whatever toys they like at recess, such as playing basketball with girls and "house" with boys. They can make sure not to group their students in "boys against girls" groupings, and try to help their students see that boys and girls are not that different after all.

Strengths of the Study

This study was conducted on two classes of elementary teacher candidates, and due to the research design, the majority of them participated in the survey and submitted it. The research was designed so that students could answer the survey questions during the already scheduled class time, allowing for a higher response rate than an online survey. Secondly, the survey had a variety of questions that lead to multiple themes being pulled from the survey answers. The questions were also written rather than multiple choice, allowing for greater freedom of answers from the participants.

Limitations of the Study

The main limitation of this study is the small sample size and the fact that all the participants came from the same teacher education program. This means that we did not get to see how a variety of teacher education programs would have prepared pre-service teachers to answer the survey. Since the results are not generalizable, it is limited to the description provided in this one case.

Future Research

The next step in research for this topic would be to study teacher education programs that are outstanding in their inclusivity and gender equity. This might be completed by interviewing teachers in the field, rather than preservice teachers, and by visiting classrooms and viewing what goes on day to day. The study could also be replicated on a larger scale, with online surveys for teacher candidates in different teacher education programs and in different areas of the country.

Conclusion

The goals of this study were to find out what preservice teachers at the target university knew about gender definitions, and also what attitudes and stereotypes were held about gender they held. The research questions asked were:

- What definitions do preservice teachers have about gender?
- What attitudes and stereotypes do preservice teachers have about gender?

Finally, the study concluded:

- preservice teachers have misconceptions about the definition of gender, often stating that it is the same as biological sex,

- they have conflicting views on the origins of gender roles, and
- they have a spectrum of plans regarding gender equity in their future classrooms.

The results showed that the participants may need more education in the area of diversity and gender in order to have more plans for gender equality in their future classrooms.

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Appendix



EAST TENNESSEE STATE
UNIVERSITY

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IRB APPROVAL – Initial Exempt

November 12, 2019

Victoria M McIlquham

RE: Knowledge of and Attitudes toward Gender in Preservice Teachers
IRB#: c1119.8e
ORSPA#:

On **November 12, 2019**, an exempt approval was granted in accordance with 45 CFR 46. 101(b)(2). It is understood this project will be conducted in full accordance with all applicable sections of the IRB Policies. No continuing review is required. **However, an annual administrative check-in must be submitted for this study.**

The exempt approval will be reported to the convened board on the next agenda.

- New Protocol Submission xForm; Gender bias survey; Informed consent script; Informed Consent form; Resume; Bibliography

Projects involving Mountain States Health Alliance must also be approved by MSHA following IRB approval prior to initiating the study.

Unanticipated Problems Involving Risks to Subjects or Others must be reported to the IRB (and VA R&D if applicable) within 10 working days.

Proposed changes in approved research cannot be initiated without IRB review and approval. The only exception to this rule is that a change can be made prior to IRB approval when necessary to eliminate apparent immediate hazards to the research subjects [21 CFR 56.108 (a)(4)]. In such a case, the IRB must be promptly informed of the change following its implementation (within 10 working days) on Form 109 (www.etsu.edu/irb). The IRB will review the change to determine that it is consistent with ensuring the subject's continued welfare.

Sincerely,
Stacey Williams, Chair
ETSU Campus IRB
Cc:



Accredited since December 2005

This informed consent form is for pre-service teachers who I am inviting to be part of my research study for my thesis, titled “Knowledge of and Attitudes toward Gender in Preservice Teachers”

Principle Investigator: Victoria McIlquham
Organization: ETSU
Sponsor: Dr. Lori Meier

Introduction

I am Victoria McIlquham, and I am doing research for my Senior Honors Thesis at East Tennessee State University. I am researching the knowledge of gender and the attitudes toward gender of people going into the teaching profession. If you have any questions at any time during, before, or after the study I would be happy to answer them to the best of my ability.

Purpose of Research

The purpose of this research is to understand how much the people that are going into the teaching profession know about gender, and what gender biases they may be bringing into the classroom.

Duration

All you will be doing for this study is filling out this survey. It will take 10-20 minutes.

Procedures

I will be analyzing and coding the responses to this short answer survey to understand what preservice teachers think about and know about gender.

Confidentiality

No names will be put on the survey and I, the researcher, and my advisor will be the only ones who see the raw information. A copy of your surveys will be kept for at least 6 years at ETSU.

Possible Risks/Discomforts:

There is always the risk of break in confidentiality if a survey response identifies you, but it is very slim. There is also the risk of handwriting identifying you, but no handwriting will be included in the final paper.

Possible Benefits:

By participating, you will help us gather data that may improve the teacher education program in the future.

Financial costs and Benefits:

There will be no financial costs or benefits for participating in this research study

Voluntary Participation:

Your participation in this research study is *voluntary*. **You may choose not to participate.** If you decide to participate, you may change your mind at any time and withdraw. This study will have no effect of your grades.

Contact for Questions:

If you have any questions or research related problems you may email me at mcilquhamv@etsu.edu at any time. You may also call the Chairperson of the ETSU Institutional Review Board at 423-439-6054 for any questions you may have about your rights as a research participant. If you have any questions or concerns about the research and wish to talk to someone independent of the research team, you may call an IRB Coordinator at 423-439-6055 or 423-439-6002.

By continuing with this survey, I confirm that I have read and understand this Informed Consent Document. I also confirm that I had the opportunity to have it explained to me verbally. I confirm that I was able to ask questions and that all my questions have been answered. By continuing, I confirm that I am 18 years or older and I freely and voluntarily choose to take part in this research study.

Informed consent script

I am doing research for my senior honors thesis, and I would appreciate your help. I am researching the topic of gender and the attitudes about gender that new pre-service teachers have. The purpose of this research is to understand how you define gender and how you believe gender impacts the classroom environment. No names will be put on the survey and my advisor, Dr. Meier and I will be the only ones who see the survey you complete. If you don't feel comfortable completing this survey you are not required to. A copy of the surveys will be kept for at least 6 years at ETSU (with Dr. Meier). Feel free to be honest and candid on this survey. No names or identifying information will be collected or used. I hope to use this research to help better understand pre-service teacher's understanding of gender in the elementary classroom. It is possible that what I learn could contribute to improvements in teacher education programs regarding gender. If you have any questions about my research project you are welcome to ask and I'll do my best to answer them.

Please do not include any identifying information on this form

What is the definition of gender?

Are gender and biological sex the same thing? Please explain.

Do you believe gender roles are learned or innate? Please explain.

Have you ever found yourself thinking “boys will be boys” in the classroom or on the playground?

Are girls more emotional than boys? Why?

Do you believe that men and woman have different academic strengths?

Are boys typically less organized than girls? Please give an example.

Who is easier to teach in the classroom, girls or boys? Why?

What are your plans for your future classroom involving gender equality?