

GENDER EQUITY IN EDUCATION: MEANINGS AND PRACTICES

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The purpose of this study is to further understanding regarding how U.S. teachers make meaning about gender and how their conceptions translate into the classroom environment. The teachers were also asked to discuss any formal training they had in gender sensitivity, and how important they consider gender equity to be in today's educational system. Respondents included 20 teachers of various age groups and disciplines from Pennsylvania and Maryland, who participated in in-depth interviews over a four-month data collection period. Data were coded using the mixed-methods software Dedoose and then mined for themes with memoing. Results indicated that teachers perceived gender to be largely a biological distinction between the sexes, although some included sexual identity and personality traits in their definitions. The influence of being a parent and a teacher was found to be especially strong, with parents-as-teachers holding more sex-based notions of gender than teachers without children. None of the teachers interviewed had received any formal gender sensitivity training, although all perceived that such training would be beneficial in their schools. However, issues such as race and poverty were considered of more critical importance than gender. The data evince a classroom culture in which gender-differentiated treatment in pedagogical decision-making, including lesson planning, behavioral direction, and student-teacher interaction is the norm, not the exception. The findings suggest that the lack of clarity and intentionality in teachers' conceptions of gender, combined with the absence of gender sensitivity training, has contributed to an educational environment in which gender inequities are prevalent.

TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
1.1 OVERVIEW OF THESIS.....	2
1.2 PROBLEM STATEMENT/STATEMENT OF PURPOSE.....	2
1.3 SIGNIFICANCE OF THE STUDY	3
1.4 RESEARCH QUESTIONS.....	5
1.5 THESIS STATEMENT.....	5
1.6 THEORETICAL FRAMEWORK.....	6
1.7 THESIS ORGANIZATION.....	7
2.0 LITERATURE REVIEW.....	9
3.0 EXPLANATION OF METHODS AND METHODOLOGY	21
3.1 CONCEPTUAL FRAMEWORK.....	21
3.2 METHODOLOGY AND RESEARCH DESIGN.....	22
3.3 METHODS.....	22
3.4 INDICATORS OF QUALITY.....	24
3.5 RESEARCHER SUBJECTIVITY	26
3.6 LIMITATIONS.....	27
4.0 FINDINGS	29
4.1 CONCEPTIONS OF GENDER	29

4.2	GENDER: MEANINGS AND PRACTICES	31
4.3	GENDER SENSITIVITY TRAINING	38
4.4	PERCEIVED IMPORTANCE OF GENDER ISSUES IN EDUCATION... ..	39
4.5	PARENTAL STANDPOINT	40
5.0	CONCLUSION.....	45
5.1	SUMMARY OF FINDINGS.....	45
5.2	IMPLICATIONS	47
	APPENDIX A : GENDER EQUITY IN EDUCATION INTERVIEW QUESTIONS.....	52
	APPENDIX B : INTRODUCTORY SCRIPT	54
	APPENDIX C: PARTICIPANTS INFORMATION.....	55
	APPENDIX D: BOY DESCRIPTORS.....	56
	APPENDIX E: GIRL DESCRIPTORS	57
	BIBLIOGRAPHY.....	58

LIST OF FIGURES

Figure 1. Issues of Importance Based on Teacher Responses	40
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1.0 INTRODUCTION

In 2009, the U.S. Secretary of State, Hillary Clinton, stated, “If half of the world’s population remains vulnerable to economic, political, legal, and social marginalization, our hope of advancing democracy and prosperity is in serious jeopardy. The United States must be an unequivocal and unwavering voice in support of women’s rights in every country, on every continent” (U.S. Department of State, 2012). While this statement is theoretically aligned with gender equality policies established by the UN vis-à-vis the Millennium Development Goals and Education for All, the reality is that gender equality has not even been reached in the United States, the very country making such a bold declaration.

The 1970s witnessed a great push for social reforms in the United States, including gender equality reforms in education. While some progress was made, extensive reports by the American Institutes for Research found that gaps in treatment of boys and girls remained through the turn of the century, including areas such as subject tracking and standardized-testing practices (American Association of University Women, 1999). And yet while the more blatant forms of gender discrimination have been eliminated, societal expectations of gender roles continue to inhibit both boys and girls today; insidiously, perhaps, as gender discrimination is often considered to be a relic of a bygone era (Sadker & Zittleman, 2009). However, differential treatment remains, evidenced in boys’ behavior problems at school and poor grades; and in girls’ low test scores in higher education, plummeting self-esteem, and career tracking.

Although it is imperative that women's rights be addressed on a global level, it is also necessary to redress continuing gender inequalities at the domestic level. As schools have long been considered one of the best arenas to confront social issues, understanding how gender plays out in the educational system is imperative.

Therefore, the purpose of the study is to further understanding regarding how educators make meaning about gender. In both the scholarly and lay community gender is often used ambiguously; this contributes, perhaps, to misunderstandings and miscommunication when gender policies are imposed in the school system. Previous researchers have noted the great disconnection between gender theory and research and education practices, which hinders gender studies and the application of research findings to the classroom. Therefore, for findings in educational gender research to be of use, it is imperative that researchers have a deeper understanding of how teachers conceive of gender, and how this may translate into the classroom setting.

1.1 OVERVIEW OF THESIS

1.2 PROBLEM STATEMENT/STATEMENT OF PURPOSE

Considering the abundance of literature on (female-oriented) gender equality in education beginning in the 1970s, to today's research on the "boys in the back," it is surprising that there is a lack of research on teachers' meaning-making about gender. Many studies have addressed connections between teacher gender biases and perceptions of specific subject ability (literature, arts, math, and science), or differential treatment based on gender, but few, if any, analyze how

educators define gender, and how they perceive gender equity to be actualized in the classroom experiences of today.

Thus, this study will address the gap in the literature by examining how teachers make meaning about gender, how they perceive gender to translate into classroom culture, and how important they consider gender equality measures to be today. Therefore, the study will contribute to the literature base in several ways. The issues above will provide a useful starting point for further research as to how to break the disconnection between policy and practice, and how to generate meaningful discourses about ongoing gender disparities in the classroom. Hence, gender equality will again be brought to the forefront of discussions in educational reform, with—hopefully—positive implications for the futures of both girls and boys within the educational system.

However, it is important to note that the intention of this research study is not to implicate teachers in being at fault for any ongoing gender discrimination or differential treatment in the classroom. It is my position that teachers have agency, but are also products of the social, cultural, and institutional processes that govern the quotidian norms and regulations, especially as they relate to the education field. The focus on teachers' perceptions is important here in that their voices have been relatively unheard in recent studies regarding gender and the classroom, and is not because they more greatly contribute to gender inequalities.

1.3 SIGNIFICANCE OF THE STUDY

There are numerous studies involving gender discrimination in education (Berekashvili, 2012), including a number of studies regarding teacher perceptions regarding gender-differentiated

ability (Riegle-Crumb & Humphries, 2012; Tiedemann, 2000), behavior (Sadker & Zittleman, 2009; Sommers, 2000), and discipline. However, none of these address the basic question: how do teachers conceive of gender? Nor has the issue of gender sensitivity training systemically been addressed in Western education, although programs offering these services have found to be successful in developing regions (Unterhalter & North, 2011). As well, a great majority of recent studies on gender perceptions have used quantitative measures, whereas those concerning gender-differentiated classroom behaviors have used qualitative or mixed-methods approaches.

Therefore, this study will contribute to the literature base of gender in education in several ways. From a theoretical perspective, the in-depth interviews will provide a greater depth of understanding teachers' perspectives, contributing to the generation of meaningful critical analysis, while also utilizing gender-related questions that previously have not been addressed by research. Conceptually, by moving from the micro (individual perspective) to the macro (usefulness of gender sensitivity training and equality programs), the research contributes to various levels of gender studies. In terms of practical significance, the research examines a perspective crucial to the development of gender equality through teacher-student influence, yet has yet to be broached by the research community. As conceived, the study intends to bridge the gap between gender researchers' notions of gender equality and development, and those of the teaching community, from which the values are conveyed to the student population. Finally, this topic has held personal significance for me ever since my mother encouraged me to read *Failing at Fairness: How America's Schools Cheat Girls* (Sadker & Sadker, 1994) in elementary school, generating a life-long interest in gender equality studies.

1.4 RESEARCH QUESTIONS

Drawing from Mears (2009) and Rubin and Rubin (2012) the key research questions will be:

- 1) How do teachers in the United States make meaning about gender?
- 2) How do they perceive these meanings translate into their classroom environment?
- 3) Do teachers receive gender sensitivity training, in any form, either through their formal preparation to become an educator or by their employer?
- 4) Is the issue of gender equality perceived to continue to be relevant in today's U.S. educational systems, or are other equality issues considered to be more prominent in the hierarchy of urgency?

These questions provide the foundation for a study of 20 teachers from Pennsylvania and Maryland, in the hopes of uncovering their beliefs about the meaning of gender, and how those meanings then manifest themselves in the educational environment.

1.5 THESIS STATEMENT

This study proposes that teachers' conceptions of gender are based on sex differentiation, some with an unclear conflation of sex and sexual identity factors, leading to a vague and muddled understanding of gender equality in education. The respondents demonstrated a comfort with

gender differentiated treatment in their lesson planning, behavior direction, and student-teacher interactions, and did not perceive this to be an issue of gender inequality in the classroom. The teachers interviewed have had no gender sensitivity training, reflecting a turn away from gender equality measures taken at the administrative levels of education. Thus, the findings highlight a couple of challenges facing gender researchers and teachers alike: a lack of clarity and intentionality in definitions of gender, ongoing gender differentiated treatment within the educational system, and educators who are ill-equipped to recognize and grapple with gender inequalities due to lack of training.

1.6 THEORETICAL FRAMEWORK

Based on Conrad and Serlin's (2011) explanation of epistemologies, I accept the constructivist understanding of truth, in that it is relative and situated within local contexts. As well, Schacter, Norman, and Koussal (1998) note, "memory is not a literal reproduction of the past but instead depends on constructive processes that are sometimes prone to errors, distortions, and illusions" (p. 289). Thus, I consider reality to be socially and historically constructed and open to innumerable interpretations; as a researcher, therefore, my task is to discover the lenses through which the interviewees interpret their realities, and maintain constant vigilance (and documentation) throughout the data collection process and analysis of my own expectations and biases.

Theoretically, I align my study with critical theorists who believe in the need to radicalize and transform what is considered to be objective reality (Freire, 1970). My motivation in the pursuit of my topic is the discovery and remediation of societal problems (Rubin & Rubin, 2011). In the context of the in-depth interviews provided by educators, I will attempt to discover the implicit assumptions of gender differences that undergird inequalities in the educational system.

1.7 THESIS ORGANIZATION

The thesis is organized into the following five sections: Chapter 1 provides an overview of the study, including a description of the research problem, the significance of the study, the study's main purpose, research questions, and theoretical framework.

Chapter 2 consists of the literature review of gender equality studies in education. First, the review briefly discusses gender theories undergirding the past 30 years of educational research regarding gender equity in schools. Next, the review will delve into recent studies of teachers' perceptions about gender, including: conceptions of innate intellectual abilities and skills; gender-differentiated behaviors; and subject strengths and weaknesses. Finally, the gap in the literature is identified after providing the overviews of recent literature on the topic.

Chapter 3 provides the description of the research, including methodology, research plan rationale, and methods. Drawing primarily from Freire (1970), the conceptual framework for the study is justified. A brief discussion of the methodologies used for data analysis follows. The

chapter concludes with analysis of researcher subjectivity and other limitations the study presents.

Chapter 4 presents the research findings according to the major themes uncovered during the data analysis. The first section delves into commonalities held between teachers' regarding their meaning making about gender, as well as any glaring outliers. The second section discusses trends in teacher beliefs about gender dynamics in the classroom environment, and their explanations for these patterns. Next, gender training for teachers is addressed, as well as whether educators find gender equality to remain a relevant topic in education policy today. Finally, any other major themes that were not intentionally addressed by the research questions but nevertheless were consistently raised by subjects are discussed.

Chapter 5 offers a summary of the research findings and conclusions. Using triangulation, implications for future studies and practices is addressed, including specific areas of concern for gender equity practices in the classroom. Limitations of the research methodology and data analysis are also provided. First paragraph.

2.0 LITERATURE REVIEW

Considering the import bestowed upon gender equity issues in the international community within the past decade (with special consideration for gender equity involving the rights of women and girls), the dearth of literature regarding Western teachers' perspectives on gender is surprising. Most literature that emerges from research about Western education has focused instead on children's constructions of gender within the school setting, conflating variables (including gender) that lead to discrimination, the impact of teacher/student gender relations, and the underachievement of boys. As girls have been outpacing boys in overall grades, Advanced Placement courses, and tertiary graduation rates, this lack of research on gender equity—at least as it pertains to girls—is not too surprising.

Yet even in developed countries, gender equity has yet to be reached. Due to horizontal segregation, women are still relegated to the economic sidelines because the professions that tend to draw women denote lesser social and monetary benefits than those of men. Even when women are employed in the same occupation (with the same educational background) as their male counterparts, they are paid significantly less (Sadker & Zittleman, 2009). Women still shoulder greater household burdens, even when they work full-time. Why, then, has the scholarly community turned away from the issue of gender equity in the classroom—as it pertains to educators' beliefs—when the socialization process during education has been proven

to be of great importance in shaping students' construction of gender? And why have the voices of the educators remained relatively unheard in the research studies?

There are a number of difficulties in the assessment of these questions. First, the term "gender" is used in various meanings throughout the policies of international and domestic organizations, at times interchangeably with "women" or "sex" (Glasser & Smith III, 2008; Hales, 2007). And although gender is the focus of this study, its intersectionality with other factors, both individual and collective, cannot be ignored. As noted by Hancock (2007), "gender never really operates independently from other aspects of political life, and so it is misleading to think of gender as an autonomous category of analysis" (p. 229). As well, there is no standard, universal definition of gender equality in education, which affects both measurements in practice, and the ability to synthesize the literature (Subrahmanian, 2005).

Ideally, this review will use the term "gender" to refer solely to the socially constructed behaviors and roles prescribed to the sexes by a given society, in accordance with the definition delineated by the World Health Organization. In actuality, however, this study was conceived and implemented using "gender" and "sex" interchangeably, in a similar fashion as other authors in the educational research field, wherein "gender has largely eclipsed sex...as the preferred term for naming differential aspects of male and female experience, thinking, and practice" (Glasser & Smith III, 2008, p. 3 49). Based on the work of Aikman, Halai, and Rubagiza (2011), the terms gender equality and gender equity will be used interchangeably, recognizing that the former is often considered a normative trait, while the latter is associated with the social, political, and institutional barriers in various contexts. However, it should be noted that many scholars delineate between the two definitions of equality and equity in their writing and research.

Recent Theoretical Underpinnings of Gender Studies

There have been, historically, multiple and varied attempts to discern explanations for the so-called differences between the sexes, and these debates are ongoing today in the form of polemics regarding gender identity, attitudes, and stereotypes. The explanations for these phenomena have fallen under three categories: biological, psychological, and sociological, and have generally shared the limelight. How gender is accepted to be understood by the media, the scientific community, and society plays an important role in its manifestations within education.

The male-female continuum of the sex role theory, dependent largely on each gender's "internal psychological organization" matching the "external behavioral manifestation" fell out of favor in the 1970s due to its binary construction of gender roles, positioning of "natural" gender behaviors, and its incomplete theoretical structuring of roles: gender was not perceived as being constructed in relation to another gender, but as a separate entity in and of itself (Kimmel, 2004). However, the term "gender role" is still widely used in discussions regarding the effects of gender stereotypes today.

The social-psychological explanation of sex roles was supplanted with sociological theories, which posit "gender differentiation as the result of a social construction process, and argue that peoples' conceptions about gender are derived from internalized sex roles and stereotypes, often perpetuated to justify gender inequalities, occupational stratification or discrimination" (Todor, 2010, p. 45). Gender differences as they pertain to inequalities are extremely important in sociological theories, as they highlight social and institutional power structures; as Kimmel (2004) states, "it is impossible to explain gender without adequately understanding power—not because power is the consequence of gender difference, but because power is what produces

those gender differences in the first place” (p. 99). Sociological explanations for gender differences are still widely used today, often coinciding with biological and psychological theories as well.

Feminism, too, has had a major role in shaping the scholarly discourse concerning gender equity. The three “waves” of feminism—occurring at the turn of the 19th and 20th centuries, the 1960s and 1970s, and the current state—each has offered a different perspective to research regarding power relations and subordination (Aitchison, 2005). Contemporary feminism, informed largely by postmodernism, poststructuralism, and postcolonialism, serves an important function in today’s discussions regarding gender equity due to its emphasis on human agency, “structure as process,” and “the ways in which power is exercised within everyday structures and discourses in order to maintain regimes of truth...[refuting] the notion of single theory or ‘grand narrative’ capable of explaining social, cultural, and power relations throughout time and across space” (Aitchison, 2005, p. 431).

The thesis forthcoming is grounded in critical theory, which undergirds most feminist theories (Rubin & Rubin, 2012). Critical theory rejects objectivity in research, though its ontology relies more on historical realities of oppression than the locally constructed realities of a constructivist might (Conrad & Serlin, 2011). Rubin and Rubin (2012) note, “rather than advocating neutrality, critical researchers emphasize action research, arguing that research should redress past oppression; bring problems to light; and help minorities, the poor, the powerless, and the silenced” (p. 20). As such, the impetus driving the thesis research is undergirded by the need to address past and present inequalities within the educational system.

Although many of these guiding concepts manifest themselves in some form throughout today’s research, few are used in a concrete fashion (Acker, 1988). Ostensibly, theories and practices are

disconnected from each other; feminist studies rarely inform classroom practices, and vice versa, leading to a continuation of disparate discourses regarding gender equitable classroom practices (Sanders, 2000). However, understanding teachers' perceptions about gender allows for better insight as to the sociocultural factors that still hinder progress towards equity in education, and therefore must be pursued.

Teacher Perceptions

Since the 1970s, there has been a growing body of scholarly research regarding gender-based differences in classroom experiences. These studies have focused on a myriad of subjects, one of which being teacher values, procedures, and expectations, and how these influence the educational experiences of boys and girls. More recent studies have concentrated on teacher perceptions regarding gender differences in certain circumstances: in the subjects of math, science, and literature; regarding beliefs about inherent abilities; and in terms of underachievement.

Although there has been less recent research on teacher perceptions of gender than there was in the past, the work is still extremely important, as the educational field, and educators themselves, reflect many social and cultural beliefs about gender (Sanders, 2000; Todor, 2010). Studies show that students, especially female students, are more likely to internalize teacher beliefs and attitudes into their own social identity, beliefs, goals, and personal behaviors (Sadker & Zittleman, 2009; Sanders, 2000; Todor, 2010). For girls as well, subject selection is highly motivated by teacher preference (Sanders, 2000). Therefore, understanding the nature of teachers' gender perceptions and expectations is paramount in the education field.

Research has found that teacher attitudes towards gender manifest themselves during daily teacher-student interactions, which generally has a bias in favor of male students (Berekashvili,

2012; Sadker & Zittleman, 2009). Studies of classroom dynamics show that white males receive the greatest portion of a teacher's attention, followed by males of color, white females, and females of color (Sanders, 2000). Other studies have shown that the praise given to males is more enthusiastic than that given to females (Acker, 1988). As Bereckashvili (2012) notes:

The problem is that when differentiations (manifested in attitudes and behavior) stem from gender stereotypes, they reflect existing gender orders...where value is placed upon masculine traits and differences are represented in a hierarchical way, and where girls are given a psychologically and socially unfavorable position. (p. 40)

Teacher Perceptions and Subject Content

The influence of gender stereotypes in math education has been well documented. Generally, research has held that in the subject of mathematics, gender stereotypes affect the perceptions of a student's competency (Riegle-Crumb & Humphries, 2012; Tiedemann, 2002). The pervasive belief that males have an inherent superiority in the field of mathematics has been documented by researchers in the fields of sociology, education, and psychology, and all have found that these stereotypical beliefs have been internalized by female students, to the detriment of not only their math performances, but also their self-esteem and sense of competency in the classroom (Riegle-Crumb & Humphries, 2012).

The pervasiveness of gender stereotypes in mathematics, unfortunately, has not been confined to Western nations, as research has found similar beliefs to be held across the world. Of the many effects of these stereotypes, beliefs include:

Males hold more functional beliefs about themselves as learners of mathematics than do females. Gender differences are more prevalent among old students and seem to increase as students

progress through school. Compared to males, females are less likely to attribute mathematical success to ability and failure to lack of effort, and are more likely to attribute failure to lack of ability. Mathematics continues to be viewed as a male domain, more so by males than by females...[and] external influences can differentially influence students' beliefs: for example, parents, peer group, socialisation patterns, and the media. (Tiedemann, 2002, p. 50)

Thus, females are discouraged from pursuing mathematics due to negative messages received from various external influences that over time become internalized in their concepts of personal ability.

Though teachers continue to hold to the gender stereotype that male students are more talented than their equally achieving female students, and that failure among female students is due to lack of ability rather than lack of effort (Tiedemann, 2002), recent studies have found that teacher bias regarding gender varies depending on the performance level of students (Riegle-Crumb & Humphries, 2012; Tiedemann, 2002). Although gender bias has been found to intersect with the race/ethnicity of students (to the distinct disadvantage of white females more so than any other group), in the higher-level classes, perceptions of gender differences between white males (consistently the group perceived to be most adept at math by teachers) and minority females were diminished (Riegle-Crumb & Humphries, 2012). Similarly, research has found that gender stereotypes have a greater hold on teacher perceptions in low to medial performing students, but not on high achieving students (Tiedemann, 2002).

Other subjects, such as science, craft, and technology, which are considered to be masculine domains, have been shown to offer resistance to gender equitable classrooms. Research conducted by interview with teachers of these subjects found that the (mostly male) teachers were reluctant to see equal opportunity initiatives go into action, believing that sex differences

were natural, and that any positive initiatives for girls would result in discrimination against boys (Acker, 1988). In science classes taught by males, boys receive two-thirds of interaction time with the teacher whereas girls only receive one third of the time; however, in classes taught by women, the interaction ratio differs: 51% of the teacher's attention is given to males, and 49% to females (Duffy, Warren, & Walsh, 2001).

Teachers also perceive gender differences in learning skills. Girls are considered to be more competent in skills necessary to completing a task, including observing, communicating, use of materials and equipment, and measuring, whereas boys are perceived to be more skilled in tasks that demand abstract abilities: analyzing, hypothesizing, interpreting, and questioning (Tatar & Emmanuel, 2001). Similarly, Berekashvili (2012) found that teachers scored males higher in skills associated with intelligence and originality, including generalization, quick counting and answer, and originality. On the other hand, teachers perceived girls to be more apt in reading, writing, and creative use of materials (Berekashvili, 2012). Although girls consistently receive higher grades than boys, boys are generally considered the best overall students (Sadker & Zittleman, 2009; Tatar & Emmanuel, 2001).

These perceptions about innate learning abilities affect today's discussions regarding underachieving students. What some have called the modern day "crisis" facing male students includes disciplinary problems, high referral rates to special education, and poor scholastic achievement (Sadker & Zittleman, 2009). Girls, as a whole, are not facing similar problems; thus, a discussion of male "underachievement" has ensued among policy makers and the media. Yet some social scientists and researchers have pointed out the inherent gender bias in the "underachievement" crisis: the sociocultural perception that boys are inherently intelligent but

inclined to misbehave leads to their “underachievement,” whereas girls, who are perceived to be naturally diligent, may fail because they are not smart enough. As Jones and Myhill (2004) state: If underachievement is concerned with unrealized potential rather than any lack of ability, then it is a matter of concern where teachers look for potential. If teachers are more likely to see potential in boys, then boys are more likely than girls to be designated as underachievers. Thus poor performance in boys might be viewed as caused by underachievement, while poor performance in girls might be viewed as low achievement. (p. 531)

Therefore, discussions regarding gender equity and teacher perceptions must be taken on in order to address both the symptoms and causes of gender differentiated educational failures.

Effects of Gender Stereotypes and Teacher Biases

These biases and stereotypes are in turn reflected in discrepancies between male/female student aspirations, evaluations, and achievements (Tatar & Emmanuel, 2001). Gender stereotypes are pervasive throughout the education system and affect both girls and boys, though the effects are often gradual. Both sexes are presented with different social and cultural expectations in school, with mixed results.

While math and science are considered predominantly male subjects and literature and the arts are considered the domain of female students, these generalizations actually have little factual grounding in reality in the early years of children’s education, but become more evident in the progressing years of school (Todor, 2010). Some studies have actually shown that girls enter primary school with more positive inclinations towards math than their male counterparts, but as stereotypes about math and science being “male domains” becomes more apparent, their positive attitude declines (Ma, 2012).

As female students internalize teachers' "attribution bias"—attributing male success in "masculine" subjects to innate talents and ability, while female success in the same subjects is attributed to hard work and perseverance—they become more likely to abandon difficult subjects for those that they perceive to be easier (Todor, 2010). Male students predominantly populate high-level mathematics and physics classes whereas female students tend to choose humanities and "domestic sciences," although course placement cannot be explained by differential ability but by gender-stereotyped images of the subjects (Tatar & Emmanuel, 2001).

Gender segregation by subject is carried over into future occupational holdings. Women continue to lag behind in representation on legislative bodies, and equal gender ratios are usually the result of national quotas (Sadker & Zittleman, 2009). Men occupy the majority of civil, electrical, and electronic engineer posts, as well as positions involving high levels of mathematics and science training (Sadker & Zittleman, 2009).

In testing as well, girls enter primary school on par or ahead of their male counterparts in most subjects; in the United States, the National Assessment of Educational Progress (NAEP) shows that girls begin school testing higher in math, civics, verbal ability, and reading and writing, with boys scoring higher only in science; by twelfth grade, however, boys surpass girls in the NAEP's measurements of math, science, and social sciences (Sadker & Zittleman, 2009). Perhaps more importantly, however, is that girls trail boys in standardized testing such as the PSAT, SAT, LSAT, and GRE, which determine scholarship status and entry into undergraduate and graduate schools, thus affecting the likelihood of future successes in academia and the occupational arena (Sadker & Zittleman, 2009).

Discussion

Although studies have found that teachers perceive gender equality to be a non-issue in education (Acker, 1988; Tatar & Emmanuel, 2001), or make claims about holding egalitarian gender attitudes in the classroom (Erden, 2004; Sadker & Zittleman, 2009), the results of research have found otherwise. As discussed above, it is clear that teachers both interact with the genders differently and perceive them differently.

Boys get more interaction time, positive feedback, and reprimand; they are considered to be more able to handle abstract, logical, mental work; perceived to be innately better at math, science, craft, and technology; and are also considered less socio-emotionally mature, which may contribute to their lions' share of disciplinary actions (Jones & Myhill, 2004; Todor, 2010). Girls, on the other hand, receive less attention and are given less meaningful praise; they are considered tidier, persevering, caring, emotional, and more skilled with languages and arts (Sadker & Zittleman, 2009; Todor, 2010).

Clearly, the discrepancies in teacher behaviors towards boys and girls continue to affect student academic performance, self-esteem, behavior, and even future career choices. Teachers' lower expectations for girls and differential classroom treatment have dire consequences for their aspirations outside of traditional gender roles (Berekashvili, 2012). Students' beliefs about their competencies stem from previous performances in similar activities and from teacher and parent feedback (Todor, 2010). Since teachers reflect the social and cultural gender mores of a region, addressing the sociocultural factors that influence teacher perceptions and attitudes is crucial to developing gender-equitable classrooms.

Although the situation may appear bleak, progress through gender equality initiatives appear to have made some headway. In countries such as the United States and Australia, which have had

stronger central government support and funding for gender initiatives, greater strides have been made in generating teacher support for gender-equality practices (Acker, 1988). Raising awareness of the effects of attribution bias and the influence teacher and parent attitudes have on students' competency beliefs is essential to ameliorating the gender performance gaps in schools. But even more importantly, perhaps, is to acknowledge the fact that gender equity is still a major issue in Western education, and one that affects both girls and boys. Only when teachers, parents, administrators, and students are all able to openly recognize gender inequalities will any progress towards building a gender-equitable education be made.

3.0 EXPLANATION OF METHODS AND METHODOLOGY

3.1 CONCEPTUAL FRAMEWORK

The conceptual framework undergirding the data interpretation is based on critical theory, which is considered a variation of the naturalist or constructivist paradigm (Rubin & Rubin, 2009). The importance of the conceptual framework to research design and implementation is that it aids in the development of the research questions and structure of the study (Conrad & Serlin, 2011), while also allowing for a deeper understanding of the assumptions inherent within the methodology selected (Rubin & Rubin, 2009).

Critical theory poses that through critical analysis, one may be literally and figuratively liberated. As Freire (1970) states, “to surmount the situation of oppression, people must first critically recognize its causes, so that through transforming action they can create a new situation, one which makes possible the pursuit of a fuller humanity” (p. 29). Thus, this research is guided by the understanding that research should be used to highlight inequalities, so that findings may be acted upon in a reality that is historically constructed and locally situated.

3.2 METHODOLOGY AND RESEARCH DESIGN

The purpose of this study is to understand how teachers make meaning about gender, how they perceive gender differences translate into the classroom environment, and whether gender equity is considered to be an important issue in education today. Another research goal underlying these questions is to understand how teachers came by these definitions or interpretations: through socialization, teacher training, classroom experiences, or something else entirely.

The context of gender meaning making necessitates a methodology that allows for nuances of explanation by both the research subjects and the researcher. Thus, qualitative research in the form of responsive in-depth interviews provides the best methodological framework, as noted by Rubin and Rubin (2009), “if you are looking for shades of meaning or want to explore the positions between extremes...in-depth interviewing makes sense” (p. 50). The use of semi-structured interviews allows for the study to maintain topical focus, while also generating enough freedom between the researcher and the interviewees to elaborate on themes that arise during the interview process.

3.3 METHODS

The primary source of data was provided through semi-structured interviews with a population of 20 teachers from Pennsylvania and Maryland. Interviews were conducted one-on-

one, with the exception of two group interviews that were done at the behest of the subjects involved due to their time constraints. Interviews generally lasted from thirty minutes to a hour-and-a-half (see Appendix A for sample script). The sample was drawn based on convenience, but every attempt was made to include subjects from various school disciplines, educational backgrounds, and experience levels in hopes of counterbalancing any sampling bias. Teachers from various subjects and school levels were interviewed, including: infant to preschool; elementary school, middle school, and high school; art; physical education, reading and literacy; mathematics; and humanities. All teachers had five or more years of teaching experience in order to facilitate their ability to answer questions about teaching experiences; however, their professional training ranged from certifications in their subject to Master's degrees. The male to female ratio was 1 to 4, in the hope of using a sample that was representative of the larger teacher populations' sex ratio.

As the population was drawn from a convenience sample, the participants were either known to me or introduced to me through the snowball sampling method. They were each provided with an introductory script informing them of the purpose of the study, methodology, types of questions being asked, and means of confidentiality before providing their consent to participate in the study (see Appendix B for sample script). None of the participants' identifying information was recorded, so all of the interview data remained anonymous throughout. As the interviews were recorded for later transcription, the participants were also informed of this measure before recording and provided consent. Interviews took place in locations of convenience to the subject, and therefore varied. However, the main locations of choice were coffee shops, staff lounges, and homes. None of the participants was given material compensation for their participation in the study.

The interviews were transcribed and then checked for accuracy by the participants to ensure their true intentions were being conveyed in the documentation process. The transcriptions were then coded for themes by focusing in on the data to recognize patterns and then selectively funneling those patterns into relevant themes and relationship. The data was then organized using the mixed-methods software Dedoose. Once saturation point was reached, the analysis portion of the research ended and I began the process of documenting my findings.

The themes that evolved from the data analysis were drawn from two major sources: the literature guiding the thesis work, and patterns discovered throughout the interview process. Of these, the latter was more difficult to address for the sample was intentionally drawn from various teaching backgrounds, which led to data that showed a wide variety of experiences with the topic of study.

3.4 INDICATORS OF QUALITY

The indicators of quality used in this study vary from those used in quantitative studies. Typically, quantitative studies depend on validity, reliability, and objectivity to measure quality. However, for this study, I attempted to establish the trustworthiness of the study by demonstrating that the findings were credible, transferable, dependable, and confirmable (Conrad & Serlin, 2011).

Of the traditional indicators of quality, two were omitted from this study: reliability and generalizability. Due to the qualitative methodology selected, these two gauges were not

considered as relevant, as the subjects and researchers were conveying their own interpretations of reality throughout the research process. Instead, credibility—or accuracy and authenticity—was used in their stead. According to Conrad and Serlin (2011) credibility implies that findings will be considered accurate by the researcher, subjects, and readers of the study in question. In order to ensure credibility, participants checked transcriptions to confirm that the intended meanings were conveyed to the researcher. Data from interviews was also paired with information provided through other sources, including literature on the topic and those provided by the schools in which the teachers worked. These measures were taken to guarantee the standards of credibility—or its parallel, internal validity—were met.

According to the critical theory approach guiding this study, the application of research is important, and thus, so is transferability, i.e., the information provided may illuminate another situation or context (Conrad & Serlin, 2011). Therefore, I provided a thick description of the setting, processes, outcomes, and findings of the study in order to provide another researcher the context of transferability. As well, Conrad and Serlin (2011) note, “stating the theoretical parameters of the research and thus connecting it with a body of theory allows those who make policy or design research to determine whether the findings of a case study are applicable and whether they are transferable” (p. 272).

Although qualitative research does not attempt to control the conditions under which the research is taking place in order to produce reliability, dependability remains an important quality indicator. Dependability in this study is ensured by providing a detailed explanation of the research methodology, methods, biases, ethical concerns, and descriptions of how any of the latter threats might be resolved within the research process (Conrad & Serlin, 2011).

Confirmability is the final quality indicator used in this thesis research, and simply refers to the ability of another to confirm the data collected during the process. In this sense, confirmability refers to the steps taken throughout the writing process that demonstrate that the data collected was done so in a manner that avoided producing biased interpretations in the future stages of research. Thus, the process of documenting self-reflections, method selection, and alternative conclusions provided a means of proving confirmability.

3.5 RESEARCHER SUBJECTIVITY

As previously discussed, in this study I operated under the constructionist assumption that reality is socially constructed and open to various interpretations; thus, there is no one objective truth, and also no assertion that the researcher will be able to maintain objectivity throughout the study. As Mears (2009) notes, “it is not possible to guarantee absolute objectivity in research, for indeed, whatever the topic, it would seem that the researcher must feel some subjective affinity to that area of inquiry; otherwise, the matter would hold no appeal” (p. 4).

Being aware of my subjectivity remained imperative throughout the research process. Having some background in qualitative field methods, I understood that as a qualitative researcher, my history, studies, personality, and biases were all brought to the interviews and my interpretation of the interviewee’s responses. Although I did not maintain that objectivity was paramount, or even possible, it was important that I continue to reflect on my own subjectivities throughout the process, so as not to lose sight of the goal: to aptly interpret other educators’ understandings of gender, gender dynamics in the classroom, and the importance of gender equality in education.

3.6 LIMITATIONS

There were numerous limitations that were confronted throughout the research process; some were inherent to the methodology selected, while others were due to time and environmental factors. However, every effort was made to counteract the limitations posed by the study.

One of the limitations inherent to qualitative research is the fact that the epistemology of multiple truths generates results that are locally situated and open to interpretation by the researcher and the subjects, making generalizability and replicability nearly impossible (Conrad & Serlin, 2011). However, it is generally recognized that neither of these are goals in qualitative studies, and therefore is of little practical concern. The subjectivity that is intrinsic to the methodology creates results that cannot be considered entirely objective. Scholars familiar with the qualitative methods recognize this, and while it may not meet positivist standards, the quality indicators of credibility, transferability, dependability, and confirmability all adhere to the accepted standards by the qualitative community.

Limited scope was also an issue with the selection of the in-depth approach. The nature of the qualitative interviews allowed for a greater amount of probing into the issue of gender meaning and making in the classroom context, but only in the contexts provided by the subjects. Ideally, the qualitative interviews would have been combined with a quantitative questionnaire reaching a larger body of subjects to provide a broader view of the issue, but this was not possible due to financial and time limitations.

Another limitation was with the sample group. Due to financial and time constraints, the sample was selected based on convenience, and was relatively small in size. However, sample bias should not be an issue in terms of the sample demographics, as the sample group mostly

consisted of white females, consistent with the target population (although 15% of the sample were made up of minorities, and 25% were male). The sample group also was comprised of individuals who had taught for five or more years, as to ensure that they had a wealth of experiences as an educator to draw upon during the interviews.

However, qualitative research provides innumerable benefits as well. The rapport between the participants and I generated an environment in which a greater amount of personal background and beliefs were able to emerge. Thus, the level of nuance provided by in-depth interviews allowed for some unforeseen topics to come to light during the data collection process, uncovering themes that might have otherwise gone unseen through the use of quantitative methods.

4.0 FINDINGS

4.1 CONCEPTIONS OF GENDER

The first question asked of participants was how they, as teachers, conceived of “gender.” By and large, the majority of the teachers participating in the study perceived “gender” to be synonymous with “sex.” Of the 20 participants interviewed, all of the teachers first cited gender as being biological, physiological, or relating to the male/female binary; only four of the interviewees expanded upon their definitions of gender to include other factors that contributed to their conception of “gender.”

The four expanded definitions of gender included: sexual identity, non-binary identifiers, including sexual identity, individual identity, and personality. When these teachers spoke about individual identity and personality, they explained that “gender” was part of our socialization into Western society and a means through which society categorizes individuals based on sex, which becomes incorporated into the individual’s larger personality and identity schema. These explanations demonstrate a fuller comprehension of how gender and sex are intertwined in Western culture and society and how this labeling affects the lived experiences of individuals throughout their lives and education.

Some respondents also noted gender's intersectionality with other identity factors, but seemed to place gender at the forefront in terms of the initial "labeling" done by society. One interviewee noted: "it's one of the first labels that you're given in your life. Before they're [children] labeled anything else, black, white, Asian, whatever it is, you're a girl or a boy...it's a label that society puts on you. Your gender"(Participant #8, March 10, 2013). In a darkly telling comment about the intersectionality of gender and race, another interviewee stated "my aunt...she would always tell me that I had two strikes against me: the first was being born female, the second was being born black. In that order" (Participant #10, March 10, 2013).

The use of gender as a form of labeling was also seen as being related to sexual identity, although only one participant specifically cited sexuality identity as being synonymous with gender. Interestingly, one of the male physical education teachers had an extensive knowledge of the role of sexual identity in sports, from the chromosome tests of the Cold War to current NCAA sexual identity rules (including stipulations about how long a person must be undergoing hormone therapy before being allowed to compete as a different sex), but did not consider sexual identity to be tied to his conceptualization of gender. However, when pressed for a more concrete explanation of gender, the participant explained:

Well I definitely think you're born...with a certain lean one way or the other, and most people are clearly born as a male or female, and some are born as a male or female sexually, and I think you're definitely born...you know we had kids in kindergarten that you could see were more male or female. (Participant #11, Mar. 30, 2013)

Thus, his explanation of "gender" conflates the notions of biological sexes and sexual identity, although he did not acknowledge the latter in his meaning-making about gender.

Discussions that began with analyses of conflating variables, such as gender and race, as seen above, or others that delved into sexuality and identity, however, quickly became conversations of the “sexes.” Clearly then, although some of the teachers did perceive “gender” to be more involved than simply a differentiation between the sexes, the term still emerges repeatedly as being undergirded by binary, biological distinctions.

Thus, the broader explanations of gender appeared to be more of a comprehension of an abstract notion than ideas grounded through experiences. Even those teachers who explained gender in ways that were not merely sex based did not demonstrate this same definition when supplying concrete examples of how gender played out in their classrooms, reverting instead to the gender/sex synonymity. For this group of respondents, then, any conception of “gender” is beleaguered with notions of sex differentiation.

4.2 GENDER: MEANINGS AND PRACTICES

As mentioned above, teachers provided sex-based examples of gender when discussing how gender manifests itself in the classroom environment. Interestingly, however, none of the teachers interviewed took a “gender neutral” position when describing their teaching styles in the classroom, a perspective that has been demonstrated by teachers in words (though not through their actions) in other studies of gender in the classroom (Garrahy, 2001). Instead, the vast majority of participants discussed making conscious decisions in lesson planning, behavior direction, and student-teacher interactions with the intention of appealing to what they perceived

to be the sex-based differences between their students, or in order to create a gender-equalizing environment.

Discussions of lesson planning quickly brought to light some of the perceived binary qualities of gender held by the teachers. The early childhood education teachers created loose activity plans for the day, with time divided between activities that utilized fine and gross motor skills, sensory exploration, and more; children are then expected to choose which activities appeal to them, with less formal instruction and direction than is common in the elementary and secondary levels. Thus, it was the elementary and secondary teachers who conversed the most about conscious curriculum decisions they took to involve either their male or female students—whomever was considered least likely to be interested in the lesson at hand. Though these decisions were made in the spirit of generating equal interest or equal gender equality in terms of participation, all of the tactics used by the teachers were in order to benefit the male students; none of the conscious decisions were made with the female students in mind.

In the interview with a teacher of gifted students in language arts, “gender” distinctions manifested themselves twofold in her classroom lesson planning. In discussing how to garner interest in literature amongst students, the teacher noted:

Now when I taught reading/language arts I tried to select literature that was going to appeal to the boys, to get them involved in it, like *Into Thin Air*, so we could talk about athletics and extreme sports and they could do research on that and be interested in that. (Participant #2, Jan. 15, 2013)

In yet another example provided, the teacher stated that she would turn sentence diagramming into a competitive game, claiming, “they [students] loved it. I would try to make it

a little interesting...the boys liked that. Now the girls liked it too, they normally liked it. But the boys really did” (Participant #2, Jan. 15, 2013). Another respondent, a middle school English teacher, noted that he would often ignore curriculum-suggested collaborative classroom projects, opting instead for individual work, explaining “the hassle is just too much...even though the kids like to work together, and I wish they could do more work together, it takes so long to place the males in groups where they don’t cause trouble...by the time everyone is settled, class would be over. It’s too much” (Participant #14, Feb. 2, 2013).

These examples are revealing: they demonstrate the teacher’s belief that boys have less interest than girls in literature and reading unless the topic is somehow connected to traditionally “male” themes, and that competition through games is a mechanism through which to garner boys’ attention to mundane activities, such as sentence diagramming. As well, by omitting collaborative projects from the English classroom, the other respondent is allowing his classroom curriculum to be dictated by the misbehavior of some male students. An ethnographic study conducted by Garrahy (2001) also found that teachers made pedagogical decisions based on student interests, purposefully selecting what the teacher believed to be male themes, such as sports, in order to facilitate male participation, sometimes to the detriment of female students (in the example given by Garrahy, the school’s library only had books on famous female dancers, gymnasts, and figure skaters, eliminating the possibility of finding non-traditional female role models on which to write).

When asked what activities they chose to engage the female students, the elementary and middle school teachers appeared to be at a loss for words, citing discussions, asking questions, writing stories, and “making their papers pretty” as examples. These activities, however, were

not selected to target the female students, but were merely activities already a part of the lesson plan that the girls seemed to enjoy.

None of the high school teachers ever discussed creating lesson plans to generate interest from either sex. This may be because there is greater pressure on high school teachers to follow state and federal guidelines for accountability purposes, and therefore the teachers have less leeway in their lesson planning. The high school teachers interviewed also worked in lower socio-economic areas, where issues of race and poverty are more prevalent than those of gender, perhaps contributing to why topics were not selected to solicit interest based on gender.

Behavior direction—or redirection—was brought up by five of the eight early childhood education teachers interviewed, as a means through which to channel “gendered” behaviors into productive activities. Two teachers explained that in order to regain a sense of calm in the classroom, male students were often split up into different activities, or they would purposely regroup the children into gender heterogeneous groups in the hopes of “lowering the volume,” or “quieting the boys” (Participant #18, Mar. 17, 2013; Participant #10, Mar. 10, 2013). Girls were not mentioned as having to be redirected in order to control behavioral issues; however, both girls and boys were discussed as having strong activity preferences, which generally conveyed different teacher perspectives about “gendered” behavior.

Girls were noted to enjoy arts and crafts, writing center, and dramatic play; these activities were associated with concentration, quiet, creativity, fine motor skills, and social skills. The boys, on the other hand, were generally discussed as participating more in blocks, floor toys, and science center; they were noted to be louder, more physical, and more interested in the “abstract” concepts supposedly reinforced through these activities (see Appendices D and E for common descriptors of boys and girls).

It should be noted that although the teachers made these generalizations during the interviews, each teacher provided one example of a girl or a boy who fell outside of these “gendered” behavior and activity preferences in their discussion. These students were not treated as aberrations in the discussions, but they were considered exceptions to general patterns of gendered behaviors. One early education teacher noted, “on average, the boys want to play with the cars and trucks more, but there’s a girl who loves to play with trucks too. And she doesn’t mind that she plays alone sometimes, she just loves the trucks” (Participant #18, Mar. 17, 2013). Similarly, a boy was mentioned who spent the majority of his days in arts and crafts, a locus usually dominated by the female students.

Finally, the participants discussed engaging (or witnessing other teachers engage) in different student-teacher interactions based on the pupil’s sex. One participant explained that as a counselor, she approached male and female students differently to appeal to them, stating:

We do treat them differently in terms of when you’re talking to them. When you talk to girls, you go with the, “come on...you’re 13 years old, you’re so mature, you’re older, you’ve got to think about your future. You don’t want to mess around with a boy who’s going to get you in trouble, and these boys are babies.” And I did tell them that a lot. And that is gender-biased but it’s true. A 13 year-old boy is like a 10 year-old. (Participant #1, Dec. 26, 2012)

The participant noted that boys, on the other hand, were not approached at all regarding their behavior in relationships with female students, because the middle school counselors did not consider them mature enough for a reasonable discussion.

Another example of differential treatment based on perceived gender differences arose in discussions with various participants concerning discipline. Female students, it was noted, tend to be less of a discipline problem in the classroom, but when discipline is necessary, require a

different style than that required of male students. One teacher commented, “my girls can be conniving...so they can get away with more than the boys do. But when you do try to talk to them about it, they all emotional and defensive” (Participant #14, Feb. 2, 2013). In a similar vein, another participant stated:

Boys got more [disciplinary] attention than girls did. Now, was that because they were more outspoken, or was it because the teachers didn't want...that teachers thought it [discipline] was too harsh a punishment for the girls? Girls [were] more tactful...and if that's how they were in most situations you could see how the boys would get into more trouble. (Participant #2, Jan. 15, 2013)

The same teacher went on to note that unlike boys, when girls were disciplined, they held on to an “attitude” or resentment about the disciplinary action that could last days after the incident, leading the participant to suggest that perhaps this “attitude” contributed to some teachers preferring interactions with male students more than female students.

The comments above regarding differential student-teacher interactions illuminate the various ways in which teachers perceive, and act upon, “gender” differences, and how these differences are bifurcated between male and female students. As the middle school counselor's statements demonstrate, female students are considered to be more mature and reasonable than their male counterparts; however, due to this perception, girls are burdened with a greater share of responsibility in their role within their young relationships. This implies that male students may not held accountable by teachers and administrators for their actions in the realm of early relationships and their (sometimes very serious) consequences.

Regarding discipline, the participants' statements reflect the prevailing data on differential gender treatment in classrooms. Teachers are shown to give male students more

attention, both positive and negative (Sadker & Zittleman, 2009); boys also receive more disciplinary action than girls. What is interesting about the participants comments in this study is their reasoning behind variations in discipline: girls are noted to be more “conniving” and “sneaky” in their misbehavior (Participant #14, Feb. 2, 2013; Participant #2, Jan. 15, 2013), and teachers are hypothesized to be more fearful about offending the sensibilities of their female students in taking disciplinary action. However, these opinions on “gender” differences and disciplinary action came from teachers working in schools servicing relatively affluent areas; their generalizations could be correlated to the intersectionality between gender and class, a topic that certainly requires greater study, but is outside the purview of this research endeavor.

The final aspect of significance in terms of gender manifestations in the classroom environment actually involved the gendered interactions within the institution of education: between various levels of staff interactions, and regarding the female-concentrated nature of education. Regarding the former, both female and male teachers noted the different dynamics apparent in teaching establishments; however, only female teachers commented on what they perceived to be a negative stigma regarding the teaching profession, and its implications in furthering women’s autonomy in Western society.

The teaching profession, which at the early childhood, elementary, and secondary levels is heavily female—in 2011, only 16% of public school teachers in pre-K through 12th grade were male (Feistritzer, 2011)—creates a different work dynamic for the professionals involved, both males and females. Surprisingly, none of the male teachers professed having any problem with being in the minority. The male teacher who had been in the profession the longest noted that “there’s a lot more males in education than when I first started...you know, you had a

different peer group at school, at school you came in and didn't talk about the game last night, you talked about other things, your kids, your family" (Participant #11, Mar. 30, 2013).

However, some of the female teachers discussed having problems when working with male teachers or administrators. When discussing some of the changing dynamics between male and female teachers over time, one participant noted, "the male teachers were more self-important. The men that were supposed to be in charge of peer mediation, they didn't really want to do that, they wanted to be administrators. So they got off on the fact that they got to carry a walkie-talkie, and tell people what to do" (Participant #1, Dec. 26, 2012). Another female teacher commented that the males in her school would "suck up" to the administration, but were "less than helpful" in team building with female coworkers (Participant #20, Apr. 1, 2013).

Although these data are hardly conclusive, they demonstrate a fracture in the gendered interaction between school faculty members, and a dynamic that could easily translate into student classroom dynamics, with negative repercussions. As indicated by the data, there is a sense of disconnection between the male and female staff, which stems from perceptions of differences in pedagogy and professional behavior. If gender inequities are the root of these negative views amongst the female staff, then it is more likely that they harbor resentments, which may manifest itself in differential treatment of students.

4.3 GENDER SENSITIVITY TRAINING

None of the 20 teachers interviewed had had any formal gender sensitivity training, either in a higher education or in professional development setting. Although all of the participants professed having an interest in gaining greater practical knowledge on the subject of gender in the classroom, only five of the teachers had pursued this on their own time: some through reading articles and books related to gender and gender sensitivity, and one through a seminar offered for teaching professionals in Pennsylvania.

An issue of importance here is what kind of gender sensitivity training should be offered; as all teachers expressed a desire to have a greater understanding, whether or not gender sensitivity should be addressed through the school systems is not an issue. Although the perception of “gender” to be synonymous with “sex” prevailed among the participants, other concepts, such as sexual identity, were also discussed; and as the following section demonstrates, bullying is perceived to be a looming issue in school systems today, suggesting that a broader conception of gender should be addressed in any formal training given to education professionals.

4.4 PERCEIVED IMPORTANCE OF GENDER ISSUES IN EDUCATION

As mentioned above, the participants all shared an interest in learning more about gender sensitivity and gender in the classroom; each saw value in fostering gender-equitable classroom experiences and opportunities for children. However, when asked what other equity topics were

an issue in today’s school systems, the teachers had a host of other concerns that they saw as outranking gender in terms of importance. Many of the participants discussed either race or poverty (or the intersectionality of the two) as being of greatest concern; other issues included obesity, “going green,” bullying, and technology in the classroom. So while there was a consensus among the participants in the need to address ongoing gender inequities in education, other problems were considered more urgent.

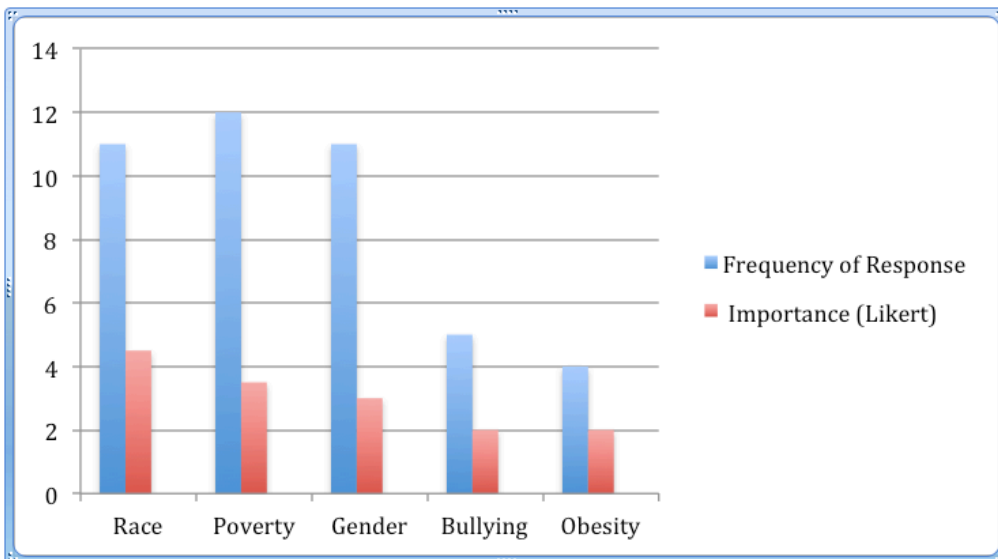


Figure 1. Issues of Importance Based on Teacher Responses

4.5 PARENTAL STANDPOINT

A theme that emerged throughout the interviews with some respondents was the influence of being a parent on their perspectives on gender and gender in the classroom. In most of the interviews, participants did not mention parents ever bringing gender issues to their attention as teachers. However, many of the teachers interviewed who were also parents brought up gender concerns they had with their own children in the educational system.

The respondents who expressed their concerns almost always did so on behalf of their daughters. One topic that was brought up multiple times was that of teachers only complimenting girls on their outward appearances. On discussing maintaining a balance as an administrator in the same facility her daughter attends, one teacher noted:

I train staff that come into this building, but I know staff are human, and I know that all of these things that we're talking about are engrained in them. You know, "your dress is cute, your dress is pretty," or for boys, "you're tough, don't cry," or "you're so fast, you're so strong" we train staff not to use these labels as they might, but then...a lot of them do. As a parent, I don't bring it up when I hear it said [to my daughter]...I know they're human. And it's not going to kill my kid that someone calls her cute, or her dress is pretty. And we do none of that at home...but [the daughter] has to wear every color of the rainbow every day, and she has to look beautiful, every day. And where is she getting these messages, that that's what's important? (Participant #12, Mar. 14, 2013)

Clearly, the balance between being a teacher and a parent is a delicate one, and one that is complicated by the external messages from teachers that become internalized by their children—messages that may contain gendered notions that the parent-as-teacher had consciously avoided in their upbringing practices. On a similar note, another teacher commented that it bothered her to hear other teachers complimenting her daughter on her clothes, stating "it shouldn't be hard to

change that [behavior]...and it's not the worst thing you can do it to a kid, it really isn't. But if you only ever say that to a kid...when did they lose sight of the fact that they're more than just what they're wearing?" (Participant #3, Feb.14, 2013).

The respondent's final statement clearly demonstrates the major difficulty these parents-as-teachers have with the focus on their daughter's outward appearance: they are concerned that their daughters will internalize the gendered message that their looks are paramount. Perhaps these are concerns for all parents with daughters; however, as teachers, these parents in particular are exposed to the gender-specific messages targeting boys and girls in the educational system. Thus, these respondents revealed a heightened awareness (as teachers) and investment (as parents) in the gendered interactions that take place in the classroom, a trait that is not generated in other professional environments.

Respondents also discussed how becoming a parent influenced their conceptions of the sources of gender-specific behaviors and activity preferences exhibited by students. In one such discussion, a teacher commented on how her notions of gender and "nature vs. nurture" changed:

Honestly before I had kids of my own, I believed nurture created the [gender] stereotypes, when now I know that's not true. Like my sister has two little boys, and her household is completely different than ours [with two girls]. The girls can just sit and draw for hours on end, and in hers, the boys move from area to area and there's so much jumping and screaming, and it's...they're more active. I don't think it's arbitrary. (Participant #12, Mar. 14, 2013)

Thus, conceptions of gender as being biologically determined became solidified after the teacher had children of her own.

Similarly, another respondent noted that before he had a son, he never considered the origin of what he deemed the “rough and tumble boys” and “slightly calmer girls.” Afterwards, however, he began to attribute these characteristics as innate, stating:

We never pushed him [the son] one way or another...there was always a balance of sports, arts, and general play in the home. But he and all his friends...loved to play rough outside and inside. We had to get rid of fragile things [in the home]...and I began to notice these similarities with other boys that I had in my classes, too. (Participant #11, Mar. 30, 2013)

Again, it appears that having children crystallized very binary notions of sex and gender amongst the teachers participating in this study.

What the statements above show is that these teachers, as parents, have come to embrace a different concept of gender than they first held before becoming parents. Initially believing nurture, not nature, influenced gendered behavior came to be replaced with the notion that biological sex differences determined gender differentiated behaviors. Thus, these teachers may be particularly susceptible to fostering what they perceive to be traditional gendered behaviors in their classroom, instead of allowing their students to engage in truly individual behavior.

Perceived influences on gendered behavior was also a topic covered in conversations about the role of being a parent and teacher. One interviewee commented on the role of the media and marketing when asked about her views on progress towards gender equality, stating:

I think that in terms of...what society does to very young children in terms of kind of forcing information upon them that are very gender-specific. Whether it's clothes, makeup, Barbie or tattoos that to me has a very female-oriented thing. And then all the tough boy stuff...and I think we expose children to this at a much younger age, then [they] have a

predisposition to be...to not thinking that they can be as equal as another gender. (Participant #3, Feb. 14, 2013)

This participant went on to discuss how she had initially tried to keep her daughter away from certain dolls and toys, fearful of what influence the female-oriented messages would have on her behavior; nevertheless, she eventually gave up, explaining that it was too difficult with the peer-pressure on her daughter from other students to have the same toys.

Another teacher described having a similar experience: as a parent, she opted to omit Disney movies and toys from her household, because of what she perceived to be undesirable messages about the roles and capabilities of girls and women. However, she commented, “it was futile. She knows all the princess names and what they can do...that’s what they [the girls] play at school. And she plays with the girls, so she knows all the princesses” (Participant #15, Feb. 15, 2013).

These responses highlight how parents-as-teachers conceive gender to be influenced, both by the media, and the children’s social environment. As discussed earlier, some of the teachers began to perceive gender as more of an innate characteristic after having children; these gendered traits are then, by their accounts, reinforced through the media, marketing, and school interactions. As well, the comments portray a kind of hands-off approach to gender: as parents, the respondents see nature as being more important than the nurture of home life; as teachers, they see peers and media as being more influential than other factors in the school environment.

5.0 CONCLUSION

This chapter will provide a summary of the findings of the research. As well, suggestions will be made for further research based on the limitations of this study as well as the topics uncovered that need to be studied with a broader scope. Finally, the implications of the research will be examined at the research, theory, and practice levels.

5.1 SUMMARY OF FINDINGS

The teachers in the study made meaning about gender in various ways. All the respondents conceived of gender to be related to the biological distinctions between the sexes in some way, whether they overtly stated this as their definition or if this theme emerged through their concrete examples of gender in the classroom. However, some of the participants had expanded conceptions of gender that included sexual identity and non-binary identifiers, such as personality and individuality.

The interviewees attributed their understandings of gender to a number of factors. Socialization and Western society's expectations for boys and girls were considered by most to be of major significance in shaping their beliefs about the meaning of gender. However, parents

and family members' views on gender in regard to sexual identity were also mentioned by some as having a greater influence than the messages of broader society. Other influences, including teachers and the media, were mentioned by many as being instrumental in the shaping of gender, but were not noted to be of significance in their individual notions as to the meaning of gender itself.

The conception of gender insofar as it related to sex was perceived as translating into the classroom in a number of ways. Many of the teachers described their students' characteristics as being either attributed to males or females, with boys being seen as more active, "rough and tumble," disobedient, and fun, whereas girls were seen as more helpful, attentive, obedient, and detail-oriented. The teachers also noted binary gender preferences in terms of activity choices: girls liked discussions, arts and crafts, dramatic play, and social activities, whereas boys liked building, sports, games, and "abstract" subjects such as science.

In conversations regarding perceptions of gender in the classroom, teachers mentioned making a few conscious pedagogical decisions to alleviate perceived tensions in the classroom environment created by gender differences. The first involved lesson planning: some teachers described choosing specific topics to appeal to the boys in their classes, or omitting certain activities in order to maintain a calm otherwise disrupted by the behavior of some male students. Other decisions included behavior redirection; male students would be placed in gender-heterogeneous groups in order to curb negative behaviors, or put in activities that would best suit their "active" ways. Teachers also explained the use of differentiated ways of speaking and interacting with students based on perceived gender differences in order to be more effective.

None of the teachers reported ever receiving any type of gender sensitivity training, either through their formal preparation to become an educator or by their employer. Some of the respondents noted having taken a workshop or done reading about the subject of gender equity in the classroom on their own time, however. All of the participants claimed that they consider gender sensitivity training necessary and beneficial to classroom dynamics, with special interests in learning about neurological differences between boys and girls, behavior management techniques, and strategies on how to foster gender-equitable environments in the classroom.

Finally, the teachers discussed the perceived relevancy of gender equality in today's educational system, especially in terms of other issues that have surfaced in recent years. Although none of the teachers considered gender equity to have been reached in American education, the topic was not deemed to be as prominent as other inequalities. Race and poverty—and the intersectionality of the two—were most often cited as being of greater importance in the school. Other issues, such as “going green,” technology in the classroom, and obesity, were mentioned as being of rising importance in today's classrooms.

5.2 IMPLICATIONS

This study has a number of implications. Since the scope of the study was narrow, addressing only 20 respondents in Pennsylvania and Maryland, further studies are necessary to address some of the themes and questions that arose throughout the research process. Other

implications, including those regarding critical theory and educational practices, will also be discussed.

The limited scope of this study should be addressed. Ideally, further research should examine how teachers across the entire U.S. make meaning about gender, in the hopes that any mores and norms of regions might emerge, further illuminating the topic. As well, since children express themselves differently throughout the developmental stages, and because they are gradually exposed to greater media and socialization processes over time, examining teacher conceptions of gender by school level would provide greater depth of meaning to future findings, as teacher conceptions might be related to their students' development stage.

A more extensive mixed-methods approach might provide fruitful results as well. Although some quantitative data were collected in this study, the analysis of both quantitative and qualitative data simultaneously proved unsuccessful due to time constraints. Combining quantitative factors, such as age, race, place of upbringing, political views, and major in higher education are all variables which, when combined with qualitative data, may allow further insight into gender conceptions.

Teachers' conceptions of "gender" merits further research in order to generate more substantial data for theory and practice-based implications to be determined. The findings from this study suggest that teachers largely conceive of gender in a way that is firmly grounded in biological sex differences, with some grappling with more abstract notions that take into account sexuality and individual identity. This lack of clarity and attention to the understanding of gender has detrimental effects on gender equality in classroom practices.

The concrete examples of praxis given demonstrate a lack of intentionality on behalf of the school staff; instead of accounting for individuality within gender, teachers show a pattern of

behavior that is undergirded by binary notions of gender differences by sex. These patterns of practice highlight the real need for gender sensitivity training in U.S. schools today. Although issues such as race and poverty were considered more important to the respondents, the classroom behaviors discussed by the teachers indicate a picture of ongoing gender inequality in the school system. Not only are factors such as sexuality and individuality generally omitted from notions gender in the classroom, differential treatment by sex is prevalent, and not considered an issue by those within the system to generate substantive change—the teachers.

Without the training necessary to create changes in daily praxis, the teachers are theoretically contributing to gender oppression twofold. First, the teachers are failing to build educational environments that foster individuality, and instead are providing those that perpetuate an inequitable gender structure. Second, this failure crystallizes gender inequalities amongst teaching staff, administration, and parents, as the largely female teaching population has internalized and practiced gender inequality in their professional lives. Therefore, it is imperative that gender sensitivity trainings become an established part of the educational system in order for action to be taken in the classroom that affects change; new concepts of gender and identity “cannot be purely intellectual but must involve action; nor can it be limited to mere activism, but must include serious reflection: only then will it be a praxis” (Freire, 1970, p. 47).

Differential discipline by teachers according to gender is a subject that requires immediate research because of its practical implications. Studies show that boys receive more discipline (including suspensions and expulsions), are more often in remedial classes, and are more likely to be treated for attention-deficit hyperactivity disorder (Sommers, 2000). This study demonstrated that teachers perceived disciplining boys as more necessary because of their behavior, but also viewed the male students as having a stronger disposition; they could “handle

it” better than the girls. However, the considerable data from other research suggest that boys are not handling their lion’s share of discipline well—their retention and dropout rates are much higher than their female counterparts. Thus, the conception that male and female students require differential treatment in regard to discipline necessitates further study in order to correct the disparities of educational effects on the practical level.

Outside of disciplinary action, the variance in teacher-student interactions based on the students’ gender has other important implications for educational practices. As the example proffered by one of the respondents suggests, girls are approached more often by staff regarding their behavior in young relationships. Unfortunately, as in the school mentioned in the example given by the respondent, young students’ sexual activity in these relationships has led to pregnancies, early marriages, and increased dropouts for the students in question. If only the female students are being approached by the staff to discuss the consequences of these relationships, then half of the equation is being ignored, contributing to the permeation of this social problem in middle and high schools. In order for this issue to be properly managed, teachers must first address their perceptions about gender differences, thereby enabling them to approach both female and male students. Until then, the responsibility of early relationships is entirely placed on female students, perpetuating a significant gender imbalance.

One issue that emerged in the research, that of the parental standpoint, also has important implications. Further research should examine how parents-as-teachers differ than teachers without children in their interactions with students of different sexes, as teachers in this study demonstrated having different understandings of gender based on their dual role as parents. In terms of practice, parents-as-teachers might require different interventions in gender sensitivity

training, if the views demonstrated in this study (that gender differences are directly related to the child's sex) hold true elsewhere around the country.

This study demonstrates the importance of critical theory, and socially engaged research generally, to the research field. As noted by Harding and Norberg (2005), “socially engaged research—that is, research that holds itself ethically and politically accountable for its social consequences—can in many instances produce knowledge” (p. 2010). Although positivism usually has more clout in the U.S. educational system—especially with attention paid to its use in accountability measures—constructivist accounts are evermore important in order to report the very human aspects of education and its enduring inequalities. Without such accounts, inequities such as gender-differentiated treatment might continue unabated, rendered invisible by positivist normative data.

APPENDIX A: GENDER EQUITY IN EDUCATION INTERVIEW QUESTIONS

Gender Equity in Education: Interview Questions Background:

1. Age:
2. Race:
3. Personal educational background:
4. Teaching history (school levels, age groups, and subjects, not school names):
5. Age when first started teaching:
6. Age of retirement (if applicable)

Definitions:

1. How do you define gender?
2. Do you think there is a difference between gender equality and equity? If so, why? Is the difference applicable in all fields, or only in education?
3. How did you come by these definitions? Were they formulated by personal experiences, readings, or professional development?

Experiences:

1. When you first started teaching (or working in education), was establishing gender equity in schools discussed (among faculty or parents)?
 - a. If it was discussed, in what way?
 - b. What words were used?
2. Have there been times during your teaching career that you have noticed gender equity issues in practice (e.g. differential treatment, subject tracking, etc.)?
 - a. If so, please describe.
 - b. When did these incidences of gender equity in practice occur?
3. Have parents ever discussed concerns about gender equity in the classroom with you?
 - a. If so, what were their concerns?
 - b. Do you recall your response?
 - c. Did you think the parents were justified?
4. Have you had gender sensitivity training either through your school or through another form of professional development?
 - a. If so, could you please describe some of the major themes of the development?
 - b. Did you think the development was helpful?
 - c. Did you implement any of the suggestions into your classroom practices?

5. In your experience, do interventions affect gender equity in practice in the classroom?
6. What indicators of gender equity do you notice in the classroom?
7. Do you think that gender roles are changing?
 - a. If so, how?
 - b. Does it change the dynamics of the classroom?
8. Do you think that gender is a 'hot' topic in education today? Please explain.
9. Do you think that gender equity *should* be at the forefront of education today?
 - a. Why or why not?
10. Do you think that gender equity has been reached in American education?
11. What about in other areas of the world?
12. Do you think your personal upbringing, and experiences within the education system as a student influences your perceptions about gender equity as an educator?
13. Do you think that gender equity can be addressed in institutions (such as within the school)?
14. Do you think that as an educator, you have the agency to influence gender equity dynamics in the classroom?
15. Do you think being an educator gives you a different perspective on gender equity outside the classroom? Please explain.

Opinions:

1. How would you describe your female students? Your male students?
2. Do you find females have a certain learning style? The males?
3. Do you think the positioning of sections for activities in the classroom contributes to gender stereotypes and/or separation?
4. Do you think that male and female students should be treated the same, or do you think they have different needs in the classroom?
5. Do you think your perceptions about gender affect your attitudes and behaviors in the classroom/school environment?
6. Do you think gender equity programs and/or teacher training are still necessary?
7. Do you think that spending resources on such training is a worthwhile expenditure?

Policy

1. Are you familiar with the MDGs and EFA?
2. Do you think their goals for gender equity are realistic? Why or why not?
3. Do you think the indicators used to measure gender equity in education are appropriate? Why or why not?

APPENDIX B: Introductory Script

The purpose of this research study is to determine how educators have made meaning about gender equity in education over their years of teaching. For that reason, I will be conducting semi-structured, one-on-one interviews with educators from a variety of teaching backgrounds from the Western Pennsylvania and Maryland regions. If you are willing to participate, the interview questions will address your background (e.g. age, race, educational background, teaching history), as well as your understanding of gender equity in education, as it relates to your personal experiences as an educator. There are no foreseeable risks associated with this project, nor are there any direct benefits to you. Participants will not receive payment for participation. I will reduce the risk of a breach of confidentiality by not recording any information that would identify you. All information will be kept confidential throughout; all divulged information will be correlated to a number for each individual, so confidentiality will be maintained, and results will be kept under lock and key. Your participation is voluntary, and you may withdraw from the study at any time. This study is being conducted by Kate Schechter, who may be contacted at 443.681.0741, if you have any questions.

APPENDIX C: Participant Information

Teacher No.	Sex	Current teaching location	Originally from	School Level/Subject
1	F	MD	PA	MS/ Counselor, Special Education
2	F	PA	NY	EL*, MS/ Language Arts, Gifted
3	F	PA	PA	EL, EE
4	F	PA	PA	EE*
5	M	MD	MD	MS*, HS/Art
6	M	MD	NC	EL, MS/English
7	F	PA	FL	EE
8	F	PA	PA	EE*
9	F	PA	PA	EE*
10	F	PA	VI	EE*
11	M	MD	MD	EL, MS, HS/Physical Education
12	F	PA	PA	EE*
13	F	MD	NY	MS/Physical Education
14	M	MD	Canada	EL, MS/ English
15	F	MD	MI	EL, HS/Math, Chemistry
16	F	MD	MD	EL
17	F	PA	Trinidad and Tobago	EE*
18	F	PA	PA	EE*
19	F	MD	RI	MS/ Counselor
20	F	MD	MD	HS/Math

Key

EE	Early Education
EL	Elementary School
MS	Middle School
HS	High School

*denotes private school

APPENDIX D: BOY DESCRIPTORS



* The larger the word appears, the greater its frequency in interview discussions.

APPENDIX E: GIRL DESCRIPTORS



* The larger the word appears, the greater its frequency in interview discussions.

BIBLIOGRAPHY

- Acker, S. (1988). Gender and resistance. *British Journal of Sociology of Education*, 9(3), 307-322.
- Aikman, S., Halai, A., & Rubagiza, J. (2011). Conceptualising gender equality in research on education quality. *Comparative Education*, 47(1), 15.
- Aitchison, C. C. (2005). Feminist and gender research in sport and leisure management: Understanding the social-cultural nexus of gender-power relations. *Journal of Sport Management*, 19, 422-441.
- Allard, A. C. (2004). Speaking of gender: teachers' metaphorical constructs of male and female students. *Gender and Education*, 16(3), 347-363.
- American Association of University Women. (1999). *Gender gaps: Where schools still fail our children*. New York, NY: Marlowe and Company.
- Berekashvili, N. (2012). The role of gender-biased perceptions in teacher-student interaction. *Psychology of Language and Communication*, 16(1), 39-51.
- Birks, M., Chapman, Y., & Francis, K. (2008). Memoing in qualitative research: Probing data and processes. *Journal of Research in Nursing*, 13, 68-75.
- Buchmann, C., DiPrete, T. A., & McDaniel, A. (2007). Gender inequalities in education. *Annual Review of Sociology*, 34.
- Cavoukian, R., & Olfman, S. (Eds.). (2006). *Child honoring: How to turn this world around*. Westport, CT: Praeger.
- Coffey, A. J., & Atkinson, P. A. (1996). *Making sense of qualitative data: Complementary research strategies*. London, UK: Sage Publications, Inc.
- Conrad, C. F., & Serlin, R. C. (2011). *The SAGE handbook for research in education* (2nd ed.). Los Angeles, CA: SAGE Publications, Inc.
- Damarin, S., & Erchick, D. B. (2010). Toward clarifying the meanings of "gender" in mathematics education research. *Journal for Research in Mathematics Education*, 41(4), 310-323.
- DiCicco-Bloom, B., & Crabtree, B. F. (2006). The qualitative research interview. *Medical Education*,

- 40, 314-321.
- Duffy, J., Warren, K., & Walsh, M. (2001). Classroom interactions: Gender of teacher, gender of student, and classroom subject. *Sex Roles, 45*(9/10), 579-593.
- Erden, F. (2004). Early childhood teachers' attitudes toward gender roles and toward discipline. *Hacettepe University Journal of Education, 27*, 83-90.
- Feistritzer, C. E. (2011). Profile of teachers in the U.S. 2011 (pp. 1-58). Washington, DC: National Center for Education Information.
- Freire, P. (1970). *Pedagogy of the Oppressed*. London, England: Penguin Books.
- Garrahy, D. A. (2001). Three third-grade teachers' gender-related beliefs and behavior. *The Elementary School Journal, 102*(1), 81-94.
- Glasser, H. M., & III, J. P. S. (2008). On the vague meaning of "gender" in education research: The problem, its sources, and recommendations for practice. *Educational Researcher, 37*(6), 343-350.
- Gosselin, C. (2007). Philosophy and the role of teacher reflections on constructing gender. *Educational Foundations, 21*(3-4), 39.
- Hancock, A-M. (2007). Intersectionality: Abstract. *Politics and Gender, 3*, 229-231.
- Harding, S., & Norberg, K. (2005). New feminist approaches to social science methodologies: An introduction. *Signs, 30*(4), 2009-2015.
- Jones, S., & Myhill, D. (2004). Seeing things differently: Teachers' constructions of underachievement. *Gender and Education, 16*(4), 531-546.
- Kaufman, M. (2004). Transforming our interventions for gender equality by addressing and involving men and boys: A framework for analysis and action. In S. Ruxton (Ed.), *Gender equality and men: Learning from practice*. Oxford, UK: Oxfam GB.
- Kellner, D. (2003). Toward a critical theory of education. *Democracy and Nature, 9*, 51-64.
- Kimmel, M. S. (2000). *The gendered society*. New York, NY: Oxford University Press.
- Linn, S. (2004). *Consuming kids: Protecting our children from the onslaught of marketing and advertising*. New York, NY: Anchor Books.
- Ma, X. (2008). Within-school gender gaps in reading, mathematics, and science literacy. *Comparative Education Review, 52*(3), 437-460.

- Mears, C. L. (2009). *Interviewing for education and social science research*. New York, NY: Palgrave Macmillan.
- Orenstein, P. (2011). *Cinderella ate my daughter: Dispatches from the front lines of the new girlie-girl culture*. New York, NY: HarperCollins.
- Riegle-Crumb, C., & Humphries, M. (2012). Exploring bias in math teachers' perceptions of students' ability by gender and race/ethnicity. *Gender and Society*, 26(2), 290-322.
- Robinson, K. H. (1992). Class-room discipline: Power, resistance and gender. A look at teacher perspectives. *Gender and Education*, 4(3), 273-288.
- Rubin, H. J., & Rubin, I. S. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). Los Angeles, CA: SAGE Publications, Inc.
- Sadker, M., & Sadker, D. (1994). *Failing at fairness: How our schools cheat girls*. New York, NY: Touchstone.
- Sadker, D., Sadker, M., & Zittleman, K. R. (2009). *Still failing at fairness: How gender bias cheats girls and boys in school and what we can do about it*. New York, NY: Scribner.
- Sanders, R. (2000). Gender equity in the classroom: An arena for correspondence. *Women's Studies Quarterly*, 28(3/4), 182-193.
- Schacter, D. L., Norman, K. A., & Koutstall, W. (1998). The cognitive neuroscience of constructive memory. *Annual Review of Psychology*, 49, 289-318.
- Seale, C., & Silverman, D. (1997). Ensuring rigour in qualitative research. *European Journal of Public Health*, 7, 379-384.
- Sommers, C. H. (2000). The war against boys. *The Atlantic Monthly*, 59-74.
- Stitt, B. (1988). *Building gender fairness in schools*. Carbondale, IL: Southern Illinois University Press.
- Subrahmanian, R. (2005). Gender equality in education: Definitions and Measurements. *International Journal of Educational Development*, 25, 12.
- Tatar, M., & Emmanuel, G. (2001). Teachers' perceptions of their students' gender roles. *The Journal of Educational Research*, 94(4), 215-224.
- Tiedemann, J. (2002). Teachers' gender stereotypes as determinants of teacher perceptions in elementary school mathematics. *Educational Studies in Mathematics*, 50, 49-62.
- Todor, I. (2010). Gender in education: Teacher's perspective. *The International Journal of Interdisciplinary Social Studies*, 4(12), 45-52.

- United Nations Educational, Scientific, and Cultural Organization. (2004). Gender sensitivity: A training manual for sensitizing education managers, curriculum and material developers and media professionals to gender concerns. In C. Joerger & E. Taylor (Eds.), (pp. 1-197). Paris, France: UNESCO.
- Unterhalter, E., & North, A. (2011). Responding to the gender and education Millennium Development Goals in South Africa and Kenya: Reflections on education rights, gender equality, and global justice. *Compare: A Journal of Comparative and International Education*, 41(4), 16. doi: 10.1080/03057925.2011.581516
- U.S. Department of State. (2012). Fact sheet: Promoting gender equality to achieve our national security and foreign policy objectives.
- Warren, H. (2007). Using gender-analysis frameworks: Theoretical and practical reflections. *Gender and Development*, 15(2), 187-198.
- Weiler, K. (1988). *Women teaching for change: Gender, class, and power*. South Hadley, MA: Bergin and Garvey Publishers, Inc.