



ADDIS ABABA UNIVERSITY

COLLEGE OF DEVELOPMENT STUDIES

CENTER FOR GENDER STUDIES

**EXPLORING THE RELATIONSHIP BETWEEN SINGLE SEX SCHOOLS AND
FEMALE STUDENTS' ATTITUDES TOWARDS GENDER ROLES: THE CASE OF
CATHEDRAL HIGH SCHOOL**

BY: SEBLE TESFAYE

AUGUST, 2018

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**A THESIS SUBMITTED TO
COLLEGE OF DEVELOPMENT STUDIES
CENTER FOR GENDER STUDIES**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN GENDER STUDIES**

ADDIS ABABA UNIVERSITY

ADDIS ABABA, ETHIOPIA

AUGUST, 2018

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

This is to certify that the thesis prepared by Seble Tesfaye, entitled “Exploring the relationship between single sex schools and female students’ attitudes towards gender roles: the case of Cathedral High School”; and submitted in partial fulfillment of the requirements for the Degree of Master of Arts complies with the regulation of the University and meets the accepted standards with respect to originality and quality.

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Acknowledgments

My special appreciation goes to my Advisor Dr. Emebet Mulugeta for spending her invaluable time to give me prompt and detailed feedback, comments, suggestions and encouragements patiently. Without her assistance and guidance, the completion of this study would have been difficult.

My sincere and heartfelt gratitude also goes to the students of Cathedral High School for their responses to the questionnaires and for their cooperation to answer my interview questions without which this paper would not have come to life. I would also like to thank the school unit leaders for easing every way to collect the data.

My deepest gratitude is to my husband Robel Bekele for his moral and financial support, and for patiently encouraging me along the way to complete the study.

On a personal note, I want to acknowledge my parents for instilling in me the value of education and leading by example which is the truest lesson. I am grateful for their encouragement and support, which without them this journey would have been impossible.

Abstract

Exploring the relationship between single sex schools and female students' attitudes toward gender roles: The case of Cathedral High School

Addis Ababa University, 2018

The purpose of this study was to explore the relationship between single-sex school environment and the gender role attitudes of female students in Cathedral High School. The study has used mixed methods; i.e. qualitative and quantitative approach. The time orientation used for the study was concurrent design which used identical samples for both components of the study. Female students in their senior year of high school were surveyed from single-sex & coeducational school using a gender role attitude inventory (Prasad & Baron, 1996). 120 questionnaires were administered to the sample population, 108 of them were filled & returned properly. Primarily, frequency counts and means for the four scales of the survey questionnaire were used to analyze & compare the attitudes of the sample by using SPSS 20.0 software, as it helps to determine the relative standing of the respondents. Aside from this, a semi-structured interview was used to collect a data on the subject matter. The survey revealed that there is no essential difference in gender role attitudes between the two samples, i.e. female students in the single sex school and female students in co-educational school. The only exception is in the area of gender role reversal, which was favored by the single-sex school. As such, students from the single-sex school are more likely to indicate comfort with the inversion of conventional gender roles. Interviews with students from both sites revealed major differences thematically. These interviews were intended to provide insight into the results of the survey as it ascertain from the students themselves what influence, if any, the absence or presence of the opposite sex in school has on their attitudes toward gender roles. The main difference between the two environments is that students in the single-sex school reported that they and their peers in the school feel quite comfortable acting "themselves" because of the lack of males in the environment. The students in the coeducational school corroborated that sentiment by expressing the tendency of their female peers to act differently in the presence of male peers. The findings from the study indicate that without the exposure to negative influence of boys on a daily basis, perhaps girls are better able to envision a world in which women are the dominant gender and that in a school environment devoid of the opposite sex, it is possible that young women are freer to imagine a society in which the order is inverted. Indisputably, this study confirms that more research is needed in the area of single-sex education for females.

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Acronyms

AAUW	The American Association of University Women
LCCS	Lideta Catholic Cathedral School
NGS	Nativity Girls' School
NOW	The National Organization for Women
UNESCO	United Nations Educational, Scientific and Cultural Organization

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

The topic of educating students along gender lines extends all the way back to the beginning of the education system. In more recent years, brain-based research highlighting differences in boys and girls brains, the threatened closing of some women's colleges, formerly single-sex schools becoming coed, and the rising popularity of single-sex classes for young at-risk youth have all contributed to make this topic more relevant today than ever before. In addition, several books published on how girls are at a disadvantage in coeducational schools have had widespread impact (Salomone, 2003).

The modern movement for single-sex public education has its origins in the late 1980s, when sex segregation first garnered national attention as a promising antidote to a widely reported epidemic of violence, psychological disturbance, and academic underachievement reported to be afflicting a generation of boys and young men. In the face of mounting legal challenges, however, the campaign for single-sex public education began to shift course in the mid-1990s. Today, states Salomone (2003), single-sex education is being promoted to educators, policymakers, and parents on the grounds that boys and girls learn differently due to underlying biological factors, including hormone levels, neurological function, and even hearing ability.

Catholic schools have traditionally provided opportunities for single-sex education at the secondary level. Since most Catholic schools are governed, founded, and/or staffed by a particular religious order, the single-sex gender context was preferred. Unfortunately, Catholic schools have fallen victim to decline in enrollment over the past 40 years, and many single-sex schools have been forced to merge and become coeducational. Again, this is a result of economics, not necessarily policy (Riordan, 2002). Aside from this, by the mid-twentieth century, most opportunities for single-sex education were in private, not public, schools. These private schools were also dwindling in numbers, much for the same reasons that most public schools since the 19th century are coeducational. Unfortunately, the public trend toward coeducation was not driven by research and educational philosophy regarding the benefits of such, but rather because of

economics. It is simply more economical in many cases to educate males and females together (Mael, 1998).

In more recent years, asserts Mael (1998), brain-based research highlighting differences in boys' and girls' brains, the vulnerable closing of some women's colleges, formerly single-sex schools becoming co-ed, and the rising popularity of single-sex classes for young at-risk youth have all contributed to make this topic more relevant today than ever before. In addition, several books published on how girls are at a disadvantage in coeducational schools have had widespread impact. Researchers and educators alike have recognized the need to investigate the actual and perceived benefits and costs of considering educating students separately along gender lines. The issue of single-sex education for girls has long been the subject of debate and controversy. Generally, there's an ongoing debate being in favor of and against single-sex schools (Mael, 1998).

A number of explanations have been given regarding the differences that single-sex and coeducational settings have in educational processes and the performance and achievement of students. Smyth (2010) says that the most commonly discussed differences between the two types of settings relates to the dominant presence of boys in the classroom. He asserted that boys contribute more to classroom interaction and tend to be more disruptive in the classroom and experience negative interaction with teachers as a result of their misbehavior. From this perspective, the presence of boys in the classroom is seen as having a negative effect on girls' academic engagement and achievement and the vice-versa when it comes to "distraction" inherent in mixed gender educational settings.

Schools (whether single-sex or coeducational) are said to have a strong effect in the formation of students' gender roles. The choice between single-sex education and coeducation has potentially important implications for the gender socialization of adolescents. Allowing children to learn only with those of their same sex may have an effect in pushing the students into a sort of gender box. By telling differences, the children may perceive that they are somehow limited to prescribed gender roles (Chrissy, 2010).

According to Erin (2014), proponents of single sex education believe that separating boys and girls by classrooms or schools increase students' achievements and academic interest. Regardless of the effects of single-sex schooling, it should be available as an option for interested families; parents

and school districts making the choice need accurate information whether their children should join single-sex programs.

In Ethiopia, specifically in Addis Ababa, there are very few single-sex schools in which only students of the same sex can attend, i.e., boys only or girls only. For the reason that the number of these schools is very limited, majority of the population in the city is not aware of their existence that some people even become surprised when they find out that there are single sex schools. The Ethiopian Gender Policy for one places gender aspect in the education system only with relation to women's educational attainment and skills acquisition and mainly discusses enrollment ratio among primary and secondary education, mentioning nothing about educating males and females separately along gender lines.

All being said, both on the side of single-sex schooling and coeducational schooling present their advantages and disadvantages from their own perspectives with further specifications on academic achievements, self-esteem, socialization and the like. Hence, in this research, the researcher is interested in the situation and argument within the Ethiopian context. Thus, the purpose of this research study is investigating as to what relationship exists when it comes to attending single-sex schools and the attitudes of female students towards gender roles within the Ethiopian context, having Cathedral High-school as study area.

1.2. Statement of the Problem

Today, there are a number of various single-sex public and private schools throughout the world and there are a large number of studies related to the issue of single-sex education over the last twenty years. This comes as a change from the trend that started in the 1970's regarding how schools provided for each of the sexes in terms of funding and programs. For example, in the United States, Congress passed the Education Act Amendments of 1972, and this legislation stated, "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any education program or activity receiving Federal Finance Assistance." (Sadker & Sadker, 1994).

Single-sex schools, mostly, are missionary religious and catholic schools or schools that are built by churches. Catholic schools have traditionally provided opportunities for single-sex education at the secondary level. Since most Catholic schools are governed, founded, and/or staffed by a particular religious order, the single-sex gender context was preferred. In this way, as Riordan (1985) argues, “gender context of a school is a clear-cut school policy decision” (p. 520). So, rather than being governed by legislation the gender composition of many Catholic schools remained single-sex by choice, and single-sex was the preferred context.

Among many of the reviewed research, one is research by Lianne, Fergusson, Horwood (1999) has also been reviewed which was about the effect of single-sex and coeducational secondary schooling on children’s academic achievement. The analysis of the research has shown a pervasive tendency for children attending single-sex schools to have greater success in the school certificate examinations, greater school retention, less likelihood of leaving school without qualification and less exposure to unemployment than children attending coeducational schools. On the same notion, research by Lee and Lockhead (1989), a longitudinal study by Sullivan, Joshi, Chrissy, Pahlke (2014) were among those reviewed by the researcher. Another one is also Smyth’s (2010) article about international research and policy debate on whether single-sex schooling yields academic and social advantages for girls and/or boys.

In Smyth’s (2010) article, he has outlined some findings from research on single-sex education conducted in English speaking countries. In particular, his article has taken a look at research on the impact of single-sex schooling on academic achievement, subject take-up, personal and social development. Although it has attempted to provide a critical perspective on some key issues involved, it hasn’t touched the matter of gender role at all.

Research suggest that young women in single-sex schools are more likely to pursue non-traditional studies and career paths (Sullivan et al., 2017). In addition to this, it appears that young women in these environments are more likely to have more egalitarian perceptions of gender roles than their coeducational counterparts (Erarslan & Rankin, 2013). Overall, current research may support the idea that the single-sex environment for females may have a more positive effect on the encouragement of females into a more egalitarian view overall of gender roles and career pursuits.

In this way, the single sex environment could prove beneficial in breaking down traditional social norms that have had a limiting effect on female student life plan choices (Hartman, 2010).

Examining the literature on the topic of single-sex education, it is most striking the lack of consensus among researchers as to whether or not single-sex education is beneficial to students. This is due to variance in measurement or methodological differences, contextual situation, socio-economic and socio-cultural issues and so forth. Researchers in the field are still seeking definitive conclusions on the topic. There are also so many factors to consider when discussing benefits and positive outcomes for single-sex education as well. For instance, should the research focus be on academics, achievement, attitude, or maybe even all of these? Perhaps, if single-sex education is beneficial even in one of these regards, then there is value in it even if this benefit should not be offset by the disadvantage in the other aspects.

In Addis Ababa, there are various religious schools built accordingly. Among these, the very well-known schools are catholic schools most of which are in a single-sex setting, example, Nazreth School, Saint Josphe School, Nativity Girls' School, Lideta Catholic Cathedral School. Despite this, most people in the city are not even aware of their existence as their number is very limited and not enough information is provided to whoever requires.

The insufficiency or unavailability of data on that subject matter in Addis Ababa, Ethiopia is the starting point for the researcher to dig deeper. Despite this, the researcher has found many articles and research conducted regarding single-sex schooling and the advantages and disadvantages it has from the perspective of academic achievement and performance, self-esteem and gender role attitudes.

It is interesting as well that, despite the fact that there has been a rise in research, there appears to be a lack of written documents regarding single-sex schools and the impact that it has on female students' gender role attitudes that are conducted in Addis Ababa, which indicates that there is a research gap as well as documented material insufficiency. As to other referring materials, there are only articles and brochures on coeducational school in Ethiopia and no particular journal, article or broadsheet is found to be available for the researcher regarding the issue. The Ethiopian Education Policy also doesn't provide any statistics with regard to single-sex schools in Addis Ababa or Ethiopia, making it hard to provide statistical data regarding single-sex schools. The

Gender Policy also doesn't place separately educating students along gender lines under perspective; it only mentions about enrollment ratios among males and females in primary, secondary and higher education.

The need to examine whether there is a relationship between female attitudes towards gender roles and single-sex schools is present, for the debate continues on, and will continue to do so, until more research is conducted. This study could potentially contribute to the body of research on the subject, and help educators and policy makers make informed decisions on single-sex and coeducational schooling options and opportunities.

Hence, this study tries to fill the gap by exploring whether or not there is a relation between the school environment (the setting being single-sex or mixed sex) and female students' attitudes towards gender roles by limiting the scope to Cathedral High School which has the two settings within: single-sex education for both sexes and coeducational setting.

1.3. Research Objectives of the Study

1.3.1. General Objective

The general objective of this study is to assess whether there is a relationship between attending single-sex schools and the attitudes of female students towards gender roles in Cathedral High-school.

1.3.2. Specific Objectives

The specific objectives of this study are:

- Explore the gender role attitudes of female students in single-sex school setting;
- Explore the gender role attitudes of female students in mixed-sex school setting;
- Examine if there are differences in the gender role attitudes of girls attending single-sex & co-educational school setting; and
- Assess female students' perception of their high school experience in terms of the gender composition of their school.

1.4. Research Questions

This research paper tries to answer the following questions:

Central Question: What relationship, if any, does schooling environment in terms of gender (single-sex or coeducational) has on the gender role attitudes of female students?

RQ1: What are the gender role attitudes expressed by female students in single-sex school setting?

RQ2: What are the gender role attitudes expressed by female students in mixed-sex school setting?

RQ3: Are there differences in the gender role attitude of girls who attend a single-sex school as contrasted to girls who attend a coeducational school?

RQ4: How do female students in the single sex school perceive their high school in terms of being segregated by gender?

RQ5: How do female students in the coeducational environment perceive their high school experience in terms of the mixed gender composition of the school?

1.5. Significance of the Study

To date, little research has been conducted that precisely explains whether there is a relationship between attending single-sex schools and the gender role attitudes of female students as most research conducted on this area focus on other factors like academic achievements, self-esteem, socialization and so on. Moreover, research conducted on this area in Addis Ababa is unavailable/inaccessible.

Hence, the findings of the research contributes a lot for the private and public school system:

1. This research study provides an understanding on how students' gender role attitudes can have a relationship with the school settings they attend to, creating awareness for students, parents, community, and Ministry of Education experts at large.

2. Another significant element of this study is the need to explore educational options for students in coeducational settings as the finding from this study implies feeling discomforts and low self-esteem while learning with opposite-sex.
3. Since the matter of study has not been researched adequately, it is hoped to help other researchers as a point of reference to conduct a research on the relationship between single sex schools and gender role attitudes of students with further specification as needed.

1.6. Operational Definition

The following terms were defined in order to clarify their meaning and use in relation to this study.

- **Gender role:** the role or behavior learned by a person as appropriate to their gender, determined by the prevailing cultural norms.
- **Gender role attitudes:** attitudes that men and women develop towards their expected roles based on their sex.
- **Mixed-sex education/co-education:** a system of education where males and females are educated together.
- **Single-sex education:** the practice of conducting education where male and female students attend separate classes or in separate building or schools.

1.7. Delimitations of the Study

This study has explored and compared two groups of female students from catholic high schools in a large urban area which is located at the center of the city. As such, there are distinct delimitations to the research. For one, the samples are drawn from two schools that are private and Catholic in affiliation. While girls in these two schools may have differed from each other, the two schools did share many similar features: they are both Catholic schools, located in Addis Ababa, similar tuition, similar entrance requirements, and similar birth place composition. However, it is reasonable to argue that there may be some confounding factors due to the identities of the school. The Catholic environment, for one, may have an influence on the behavior and perceptions of

gender role attitude expressed by the students at each site. Hence, the results here might not be replicated in a suburban environment because of location and/or socioeconomics.

The contribution of attending a single-sex school towards gender role attitudes can be seen from different angles. However, the scope of this paper is narrowed down to only studying female students' attitudes towards gender roles. The study population were only female students in order for the study to be clear and precise while addressing the matter, hence does not address the matter from the point of male high school senior students.

1.8. Limitations of the Study

Among the limitations that the researcher encountered while conducting this study, one is that the research has covered only two schools of each educational setting; hence, the findings of this research could not be regenerated to all other similar schools. The other one is the unavailability of literature or research on the matter within Ethiopian context, which made it difficult to gather knowledge and have a cross-reference on similar research. Another limitation or challenge was related to time constraints; the unreachability of the respondents at the time period that was set for collecting the data, leaving the researcher with little time to analyze and interpret the data. The respondents were unreachable due to the program of the schools which authorized the students for long examination breaks as they are 12th grade preparatory students taking national examination. Therefore, with the help of gatekeepers at the schools, the researcher had modified and adjusted the time period set for data collection. Further limitations were related to methodological limitation, i.e., the nature of instrument used to gather the data. The researcher has chosen only one adapted instrument for measuring the gender role attitudes of the students.

1.9. Organization of the Paper

The research paper is divided in to five chapters. Chapter one gives the background information and statement of the problem. It sets out objectives, research questions, significance of the study and outlines the delimitation as well as the limitations of the study and organization of the entire paper. Chapter two discusses the related researches made previously and the findings that were made along with the conceptual framework. The third chapter presents the methodology used, the

research design, data sources, sampling technique, the study site, the sample population and the data collection instruments along with the data gathering procedures. Presented in chapter four are the findings, analysis and discussion of the data. The fifth chapter provides the summary of the findings and conclusions of the study.

CHAPTER TWO: LITERATURE REVIEW

2.1. Gender Roles

A **gender role** is defined as a set of perceived behavioral norms associated particularly with males and females, in a given social group or system. It can be a form of division of labor by gender. It is a focus of analysis in the social sciences and humanities. Gender is one component of the gender/sex system, which refers to "The set of arrangements by which a society transforms biological sexuality into products of human activity, and in which these transformed needs are satisfied" (Reiter, 1975: 159).

Almost all societies, to a certain effect, have a gender/sex system, although the components and workings of this system vary markedly from society to society. Gender role refers to the attitudes and behaviors that class a person's stereotypical identity, e.g. to associate oneself as either masculine or feminine is identifying with gender. Researchers recognize that the concrete behavior of individuals is a consequence of both socially enforced rules and values, and individual disposition, whether genetic, unconscious, or conscious. Some researchers emphasize the objective social system and others emphasize subjective orientations and dispositions (Murugan, 2015).

In her book "Gender Roles: A Sociological Perspective", Lindsey (2005) defines gender roles as the ascribed roles that a society places upon women and men in association with their biological sex. Terms such as 'sex role' and 'gender role' are usually used interchangeably to define the expected behaviors ascribed to either sex. As Nicolson (1996) defines it, 'sex role' is an expected behavior placed upon women and men association with their biological sex. On the contrary, Lindsey has a different perspective than Nicolson regarding the use of the terms 'sex', 'gender' and 'role'.

Lindsey (2005) asserts that the concepts 'role' and 'gender' are sociological while 'sex' is biological. Her argument is that since gender and sex refer to two different concepts, the combination of the terms 'role' which is sociological and 'sex' which is biological leads to confusion. So for the sake of clarification of the concepts, it is preferable to combine the two

sociological concepts and use the term 'gender roles' instead of 'sex roles' when referring the socially ascribed roles of male and female.

The related term, "gender role," has two meanings that in individual cases may be divergent: First, people's gender roles are the totality of the ways by which they express their gender identities. Second, people's gender roles may be defined as the kinds of activities that society determines to be appropriate for individuals possessing their kind of external genitalia. There are probably as many shades and complexities of sexual identity and gender identity as there are human beings, and there are an equal number of ways of working those gender identities out in the intricacies of daily life. Societies, however, tend to assign some classes of social roles to "male" individuals, and some classes of social roles to "female" individuals (as society perceives their sexes) (Murugan, 2015).

Sometimes the connection between gender identity and gender role is unclear. Murugan (2015) asserts that the original oversimplification was that there are unambiguously male human beings and unambiguously female human beings, that they are clearly men and clearly women, and that they should behave in all important ways as women and men "naturally" behave. Investigations in biology and sociology have strongly supported the view that "the sex between the ears is more important than the sex between the legs", and the implication has been that people with masculine gender identities will truthfully give external representation of their gender identities by adopting gender roles that are appropriate to men, and, similarly, that people with feminine gender identities will adopt gender roles that are appropriate to women. It may be very difficult to determine, however, whether a specific drag queen is someone who has a female gender identity and is learning a female gender role, or whether that person is someone with a male gender identity who enjoys mimicking a female gender role to entertain others, to taunt the more rigid members of his society, or for some other reason, such as to repudiate the value or validity of rigid gender roles.

2.2. Gender as a "Role" Identity

According to Carter (2014), considering that role identities include the meanings that a person attaches to themselves while performing roles, it is easy to understand how gender expectations,

behavior, and stereotypes perpetuate when engaged in role taking. Role identities are socialized identities; the meanings of specific roles are learned by considering the context of the role and the social surroundings in which it is played. Role identities thus are learned early on, and many of the different roles actors learn and play are based on *differentiated* expectations for behavior; this differentiation is often gendered. For example, the family is especially defined by role identities. The role of mother, father, son, daughter, grandmother, grandfather, husband, wife, *etc.* are all role identities that are based within the family. These roles also share a common theme: they are based on *sex*, and sex is highly correlated with gender. It is also interesting how role identities share many characteristics of person and social identities; gender, being a diffuse characteristic, defines *all* types of identities.

The meanings associated with role identities are both shared and idiosyncratic (personal), and individuals must negotiate the latter with others who may have a different set of understandings about role identity meanings. Whatever the identity meanings, they are linked to the meanings implied by one's role behavior; in other words, there is correspondence between these self-meanings while in a role and role behavior (Stets, 2006: p. 89).

For example, the role identity of "mother" may involve meanings of being *nurturing* and *caring*; the performance of mothering matches these meanings as in feeding and bathing a child or engaging in warm and intimate interactions. The role identity of husband may include meanings of *powerfulness* and *control*, and the behavior of husband should match these meanings by being the one who makes the major decisions in the family (Stets, 2006).

The oppositional characteristic of role identities is also privy to gender. Role identities are based on a self/other dichotomy; roles cannot exist alone—rather they are defined as *alternatives* to other roles (Burke, 1980). For example, one cannot be a student without the existence of an alternate other who is a teacher, and vice versa; one cannot be a medical doctor without there being patients. In line with the previous discussion of psychoanalytic theories of gender and families, one learns what it means to be male or female in reference (and against) to the alternate gender. Learning behavior then is a form of role-taking.

Boys that identify with the roles of their fathers are likely to also learn that many of those roles are defined by what behavior is prevalent and acceptable; this socialization operates similarly for girls.

Of course, boys and girls can interpret roles of the opposite-sex parent, but gender is likely to be salient here as well. For example, the roles of parent and child are abstract categories, but the ways in which these roles are played is contingent on what sex the parent and children are. Treatment of the “child” by the “parent” is likely to vary according to whether the child is a boy or a girl; role taking thus involves gender. Here identity theory shows how gender is socialized across many situations, in families and throughout the life course. Gender is socialized into person identities, and gender operates while assuming roles as well (Carter, 2014).

2.3. Sociological Perspectives on Gender Roles

Sociological perspectives on gender roles vary according to the level of analysis at which they operate. *Macro-sociological* perspectives on gender roles direct attention to data collected on large-scale social phenomena, such as labor force, educational, and political trends that are differentiated according to gender roles. *Micro-sociological* perspectives on gender roles direct attention to data collected in small groups and the details of gender interaction occurring, for example, between couples and in families and peer groups (Lindsey, 2005).

According to Lindsey (2005), early sociological perspectives related to gender roles evolved from scholarship on the sociology of the family. These explanations centered on why men and women hold different roles in the family that in turn impact the roles they perform outside the family. To a large extent, this early work on the family has continued to inform current sociological thinking on gender roles. Sociological explanations for gender roles are guided by three theoretical perspectives: functionalism focuses on how gender role contributes to social order or equilibrium; conflict theory focuses on the level of power associated with gender; and symbolic interaction focuses on gender as socially constructed and how people “do” gender in everyday life. This is elaborated below.

2.3.1. Functionalism

To its credit, functionalism offers a reasonably sound explanation for the origin of gender roles and demonstrates the functional utility of assigning tasks on the basis of gender in subsistence economies or in regions in which large families are functional and children are needed for

agricultural work. Contemporary functionalists also acknowledge that strain occurs when there is too sharp a divide between the public and the private sphere (work and family), particularly for women. They recognize that such a divide is artificial and dysfunctional when families need to cope with the growing interdependence called for in a global economy. The “superwoman” who “does it all” in career achievement and family nurturance will be valued (Diekmann and Goodfriend, 2006). Finally, neo-functionalism accounts for the multiple levels where gender relations are operative— biological, psychological, social, and cultural. A functionalist examination of their interdependence allows us to understand how female subordination and male superiority became reproduced throughout the globe (Lindsey, 2005).

2.3.2. Conflict Theory

According to (Gimenez, 2001; Lareau, 2002; Misra, 2002) (as cited in Lindsey, 2005), a conspiratorial element emerges when conflict theory becomes associated with the idea that men as a group are consciously organized to keep women in subordinate positions. A number of social forces, many of them unorganized or unintended, come into play when explaining gender stratification. Functionalism’s bias against social change might be matched with conflict theory’s bias for social change. Compared to functionalism, however, this bias is less of a problem for conflict theory once it is stripped of some Marxian baggage. Contemporary conflict theory has made strong inroads in using social class to further clarify the gender–race–class link, suggesting that the class advantages for people of color may override the race disadvantages

Most people are uncomfortable with sexism and patterns of gender stratification that harm both women and men. Women are denied opportunities to expand instrumental roles offering economic parity with men outside the home; men are denied opportunities for expanding expressive and nurturing roles inside the home. At the ideological level, sociological conflict theory has been used to support activities designed to reduce racism, economic-based disparity (classism), and sexism.

2.3.3. Symbolic Interactionism

Gender emerges not as an individual attribute but something that is “accomplished” in interaction with others. People, therefore, are **doing gender**. In “doing” gender, symbolic interaction takes its lead from Erving Goffman (1922–1982) (as cited in Lindsey, 2005), who developed a **dramaturgy** approach to social interaction, maintained that the best way to understand social interaction is to consider it as an enactment in a theatrical performance. Like actors on a stage, we use strategies of impression management, providing information and cues to others that present us in a favorable light.

Gender roles are structured by one set of scripts designed for males and another designed for females. Although each script permits a range of behavior options, the typical result is that gender labels promote a pattern of between-sex competition, rejection, and emotional segregation. This pattern is reinforced when we routinely refer to those of the other sex (gender) as the opposite sex. Men and women label each other as opposite to who they are, then behave according to that label. The behavior serves to separate rather than connect the genders.

According to Lindsey (2005), symbolic interaction’s approach to understanding gender role behavior is criticized for its overall lack of attention to macrolevel processes that often limits choice of action and prompts people to engage in gendered behavior that counters what they would prefer to do. Cultural norms may be in flux at the microlevel of social interaction, but they remain a significant structural force on behavior. In some cultures, for example, women and men are dictated by both law and custom to engage in certain occupations, enter into marriages with people they would not choose on their own, and be restricted from attending school. Larger social structures also operate at the family level to explain family dynamics.

Men and women interact not only as individual family members but also according to other roles they play in society and the prestige associated with those roles. For example, a wealthy white man who holds a powerful position in a corporation does not dissolve those roles when he walks into his home. They shape his life at home, in the workplace, and in the other social institutions in which he takes part. Race, class, and gender offer a range of privileges bestowed by the broader society that also create a power base in his home. Power and privilege can result in a patriarchal family regardless of the couple’s desire for a more egalitarian arrangement (Lindsey, 2005).

2.4. Gender Role Attitudes

A 'role' is a behavior pattern belonging to a particular social status. The role regulates the various norms that define the behavior in various social positions and statuses in contrast with other status holders; thus, role-behavior is an interactive process. Gender roles attitudes are the attitudes that men and women develop towards the expectations based on their sex (Buda, 1985).

According traditional gender role perceptions, women should behave in ways that are nurturing, and men should be the head of their household and should provide financial support for the family. Modern gender roles perceptions suggest an alternative view. They suggest that individuals' behavior should not be determined only by their sex and that there should be more egalitarian relationships between men and women. Individuals should have the right to choose the roles they want to occupy and to what extent these roles are associated with their sex (Blackstone, 2003).

Functionalists, Parsons and Bales propose that a division of labor according to gender is inevitable and beneficial for society. The role of men is instrumental (to provide sustenance), whereas the role of women is expressive (to provide emotional support). However, in modern societies, there tend to be increasingly fewer jobs that women are not able to do; thus, the division of labor according to gender is not inevitable (Inglehart and Norris, 2003).

Inglehart and Norris (2003) also examine how the traditional gender role attitudes changed in 70 countries in the 20th century. Their finding is that socioeconomic development (the shift from agrarian societies to industrialized societies, and the shift from industrial towards post-industrial societies) transforms cultural attitudes towards gender equality. As a result of modernization, the traditional family model is declining, and there has been a rise of gender equality. Richer, post-industrial societies have much more egalitarian gender role attitudes than poorer, agrarian, industrial ones do.

According to Scott (2006), the reasons for the changes in gender roles are women's increasing participation in education and the labor market, and the increasing secularization which eroded the traditional religious base of the many moral absolutes associated with the family. Increasing individual autonomy and female emancipation also have an effect on women's roles. Scott (2006) also asserts that traditional gender role attitudes remaining popular in developed countries after World War II may be due to the widespread acceptance of religious conservatism, and this could

be one of the cause of the slowdown in a decrease in the wage gap between men and women and the slowdown in the increase in women's employment rates.

Simultaneously, based on a deeper analysis of Brewster and Padavic (2000), in the US, there were rapid changes in gender role attitudes (measured by changes in opinions about women's and men's work and family responsibilities) between 1960 and 1980, but in the 1980s and 1990s the changes were slower; moreover, in the late 1990s, gender role attitudes were becoming slightly more conservative than before. This could be because there was a large influx of women into the labor force after World War II, and the differences in attitudes between cohorts tend to become less pronounced later. Another reason for the slower attitude changes could be that nowadays conservatism has become more popular, and this has confirmed traditional attitudes towards gender roles.

Nevertheless, Brewster and Padavic (2000) also emphasize that recent structural changes, such as the further rapid influx of women into the labor force, women's increased proportional contribution to family incomes, an increase in the education level of the population and fathers' increased participation in child care could moderate the slowdown in the changes in gender role attitudes. All things considered, they conclude that the liberalization of gender roles has not been finished yet due to these facts.

The attitude of the young generation is changing more quickly than that of their elders. Based on the findings of Tinklin et al. (2005), 16–17-year-old people believed that it is beneficial for both genders to obtain higher qualifications and good careers and that childcare should be a joint responsibility. However, they were still choosing gender-typical education lines and occupations, so their behavior remains gender-typical (Tinklin et al., 2005). Recently, gender-behavioral norms have become more symmetrical, and men's roles have also been changing, but the question arises whether typical feminine roles could be fulfilled by men. The opinion of the European population is not optimistic concerning the involvement of men in family chores and care; in particular, men's opinions are changing slowly (Scott, 2006).

Researchers have shown that mothers are less likely to work than non-mothers due to their competing work roles and family roles, although the fathers' behavior could be different. The good-provider role model (traditional model) predicts that fathers will work more than non-fathers,

while the involved- father model (men are increasingly involved in nurturing and rearing children, which can be called the ‘new fatherhood’) predicts that fatherhood might encourage men to work less. Zuo and Tang (2000) showed that a lower breadwinner status of men also promotes a more egalitarian ideology among men and that men actually benefit from their wives’ financial contribution to the family rather than feeling of a loss of their masculine identity and suffering from the fact that their wives have less time for domestic chores.

On the whole, although men’s identity is rarely based on gender roles (their occupational role much more essential), men’s gender role is as complex as the women’s, which can also be the source of various tensions (Buda, 1985; Somlai, 1997).

2.5. Gender Role Attitudes and Socialization

The process through which the individual learns and accepts roles is called socialization. Socialization works by encouraging wanted and discouraging unwanted behavior. These sanctions by agents of socialization such as the family, schools, and the media make it clear to the child what is expected of the child by society. Mostly, accepted behavior is not produced by outright reforming coercion from an accepted social system. In some other cases, various forms of coercion have been used to acquire a desired response or function (Murugan, 2015).

According to Stromquist (2007), socialization is a central concept social theorists use to explain both cultural maintenance and cultural change. Socialization links the individual to collective life by molding members into compliance and cooperation with social requirements. At the same time, the process is not predetermined, because individuals may question and reject certain cultural features. In other words, the process is fluid and contingent on multiple factors; thus, some scholars consider that the term “identity formation” captures more the dynamic nature of the socialization process.

According to Somlai (1997) socialization in general – but also socialization to gender roles – happens in several places. Primary socialization takes place in the family, where boys and girls normally wear different clothes; their hairstyle, toys, and activities (in the household) and treatment and expectations of the parents are also different. In the socialization process, peer

groups have a highly significant role, whose impact in the formation of gender roles seems to be more pronounced than that of the family. Early friendship ties between the same genders are important as children come to be aware of gender roles through imitation (typically masculine and feminine activities and career orientations are being formed at this stage). These days, even mass media play a significant part in the socialization to gender roles, transmitting the predominant role models by means of soap operas, advertisements, tabloids and films (Somali, 1997).

The socialization of children in the family unit has been examined in various ways. Research has generally focused on four traditions: the *parent effect perspective*, the *child effects perspective*, the *reciprocal socialization perspective*, and the *systemic-ecological perspective* (Peterson & Della, 1999), each perspective provides a unique understanding to child socialization. The parent effect perspective addresses how the different styles, behaviors, and dispositions of parents socialize traits and behavior in children. This perspective is the most common area of inquiry in literature on gender socialization. The child effects perspective reverses the order of operations in family socialization, focusing on how children socialize parents.

A common area of inquiry in the child effects perspective examines how the presence of a child forces mothers/fathers to enter the workplace to support the added economic stress a child brings, hence influencing parents to develop additional, new identities. The reciprocal effects perspective examines how both children and parents socialize one another reflexively; the impact of gender and family socialization are mutually tied to both entities. The systemic-ecological perspective considers that gender and family socialization is neither a parent-to-child nor child-to-parent process, but that all family socialization is embedded in an *environment* or *context* that can have great impact. This perspective treats family socialization as a social system in which multiple sources of socialization simultaneously impact both parents and children (Carter, 2014).

The parent effect perspective is the oldest in the tradition of socialization theories and provides the basis for the proceeding discussion on socialization. This is primarily due to the fact that while identity construction is a reflexive process, more cues are provided to children *from* parents (especially in infancy and youth) than the other way around. This is an important aspect to understanding how identity theory serves as a control mechanism for actors (as will be examined shortly); parental definitions of acceptable behavior—which is usually gendered—is internalized by children early on and serves as a foundation for all subsequent interactions. Regardless of the

application or analysis of the family, the family is usually the first unit with which children have continuous contact and the first context in which socialization patterns develop (Elkin et al, 1989).

Secondary socialization also takes place in the education system. Gender roles are acquired mainly through formal and informal teacher and student interactions. Although gender stereotypes seem to be on the decrease in the curriculum, they tend to appear in the ‘hidden’ curriculum (different expectations by teachers, school regulations according to gender) (Szabó, 1988).

Gender role socialization refers to a process where individuals learn the socially accepted norms and values of their gender roles. Since a very young age, children are immersed in this process of socialization through their family, schools, and the media (Utomo et al, 2012).

Gender socialization is often examined by sociologists to determine how and why males and females act differently. The socialization process begins at birth; families usually treat newborns differently according to their sex (Elkin et al, 1989; 16–19). Indeed, families begin to socialize gender roles even in delivery rooms—boys are dressed in blue while girls are dressed in pink (or other colors that are symbolically attached to gender). From the moment that a baby enters the world it is inundated with symbols and language that shapes its conception of gender roles and gender stereotypes (Walker, 1999). Language used by families to describe boys is often centered on physical characteristics and such themes as strength and agility, while language appropriated to girls by families might address affection, expressivity, daintiness, or fragility. These different approaches and treatment of babies by the family serve to shape behavior patterns and define boundaries. These boundaries are eventually internalized and become *identity standards*—the references in which interactions, settings, and contexts are used to compare the self to others (Burke, 2009; 21–24).

One of the crucial distinctions to understanding how gender identities are learned by family socialization and perpetuated throughout life concerns *homophily*. Homophily describes the tendency for network connections to be same-sex rather than cross sex; it begins as soon as children are able to choose their playmates (Ridgeway & Lynn, 1999). This homophily is linked to social process and emerges as children learn from their families and through experience that sex differences are permanent personal characteristics. Boys and girls learn and develop in gendered subcultures which generally influence social networks and future interactions.

Literature concerning homophily generally addresses how males and females develop ties to others (Waldrop & Charles, 1973). Some of this research addresses networks that evolve in adulthood, and other research examines the dynamics that develop between boys and girls that eventually lead to differentiated groups. Homophily and the literature on family gender dynamics examines how boys and girls are socialized differently to attach themselves to others. For example, when a father (or father and mother) teaches a son to be aggressive and encourages playing sports and doing activities that involve negotiating interchanges with others, the son will likely learn that appropriate behavior is to interact with a wide range of people in heterogeneous groups. When a mother (or mother and father) encourages a daughter to interact intimately with others and encourage more one on one playing, the daughter will likely internalize messages and cues that promote likewise behavior later in life. These identities that are internalized early during child socialization (both from the family and from other sources) serve to create a highly differentiated world of acceptable behavior (Ridgeway & Lynn, 1999).

2.6. The Role of Schools in Gender Socialization

The process of socialization is a very important process for both the individual and for the society. For centuries people tried to give answers to the question, whether what defines human beings are natural features (inherited) or social features (formed through contacts with other people and through the collaboration with them). As defined by Molla (2016), the process through which people learn and acquire the characteristics of the social group to which they belong is called socialization. The socialization of individuals enables the preservation and sustainability of the characteristics, values and social norms because these are taught and transmitted from one generation to another. The American sociologist Peter Berger wrote: what happens during the socialization is that the social world is internalized on the child. The society does not only control our movements but also provides our identity, thoughts and emotions.

Stormquist (2007) also states that socialization clearly occurs in multiple institutions and settings, some of which, as the mass media and peer networks, are acquiring unprecedented levels of influence. Socialization in the schools, which touches substantially on the informal (hidden) curriculum is a critical dimension of schooling through which educational settings may introduce changes in social perceptions or, conversely, continue to reproduce traditional values and attitudes.

This socialization covers a wide array of practices, ranging from administrators' and teachers' attitudes and expectations, textbook messages, peer interactions, and classroom dynamics, to the greater environment.

In schools, gender roles are acquired mainly through formal and informal teacher and student interactions. Although gender stereotypes seem to be on the decrease in the curriculum, they tend to appear in the 'hidden' curriculum (different expectations by teachers, school regulations according to gender) (Szabó, 1988). According to feminist researchers, teachers are more permissive and biased toward boys in a positive way; they praise them more frequently and they attribute their achievement to their intelligence, while in the case of girls it is attributed to their diligence. Another question to be answered is whether the fact that the majority of teachers are women nowadays is favorable to either boys or girls. It is commonly thought that the evaluation system of the high schools favors girls and this may be the reason for their better educational attainment, which does not necessary mean that the feminization of the teaching profession is the only cause of the better achievement of girls.

Molla (2016) states that with gender socialization we understand the processes through which individuals, based on their sex learn to behave, feel, think according to the norms that in the social aspect are appropriate for their sex that they see the world in the light of gender differences, where every individual, female or male is placed within a social and symbolic hierarchy between men and women, between masculinity and femininity. The family and the school are the two main pillars that influence the child during the process of development, but also play a major role in the socialization of gender roles in the way they organize the environment for the child. The development of gender roles begins at birth. The children are exposed to many factors that influence their attitudes and behavior with regard to gender roles. These attitudes and behaviors are usually taught at home and then reinforced by the peers of the child and the school experience (Molla, 2016).

2.7. The Role of Schools in Gender Differences

Schools are major contexts for gender socialization, in part because children spend large amounts of time engaged with peers in such settings. For nearly all psychological traits on which young

boys and girls differ (e.g., reading ability, play preferences), the distribution of the two groups, i.e., boys and girls, is overlapping. Schools can magnify or diminish gender differences by providing environments that promote within-gender similarity and between-gender differences, or the inverse (Morton, 2013).

According to Morton's study (2013), schools affect gender differentiation via two primary sources: teachers and peers. Teachers and peers directly influence gender differentiation by providing boys and girls with different learning opportunities and feedback. Teachers and peers are also sources of learning about gender. Teachers present curricular materials that contain gender stereotypic behavior, and peers exhibit gender stereotypic attitudes and behavior. Children internalize gender stereotypes and prejudices, which in turn guide their own preferences and behaviors (Morton, 2013).

Teachers' gender stereotypes and prejudices shape their classroom behavior in at least three ways. First, teachers often model gender stereotypic behavior. Female teachers, for example, often exhibit "math phobic" behaviors. Second, teachers often exhibit differential expectations for males and females (e.g., creating "dress-up" and "construction" centers and accepting—even facilitating—gender-differentiated use). Third, teachers facilitate children's gender biases by marking gender as important by using it to label and organize students (Bigler, 2013).

In one study conducted by Bigler (1995), teachers were asked to use gender to label children and to organize classroom activities by, for example, greeting children with "Good morning, boys and girls" and asking children to line up by gender. Other teachers ignored students' gender. Young children whose teachers labeled and used gender showed higher levels of gender stereotyping than their peers. Preschool teachers' labeling and use of gender increases their pupils' gender stereotyping and avoidance of cross-gender playmates.

Bigler (2013) also adds that peers also contribute to gender differentiation by teaching their classmates stereotypes (e.g., "Short hair is for boys not girls") and punishing them for failing to conform to stereotypes via verbal harassment and physical aggression. Importantly, intervention programs can teach young children to recognize and challenge their peers' sexist remarks (e.g., "You can't say girls can't play!")

Schools are important contexts for the socialization of young children's gender attitudes and behavior. Teachers and classmates shape children's gender attitudes and, in turn, gender differences in cognition and behavior. Unfortunately, teachers receive relatively little training in recognizing and combating gender stereotypes and prejudices—their own and others—and, as a consequence, teachers often model, expect, reinforce, and lay the foundation for gender differentiation among their pupils. Thus, most schools create and maintain—rather than counteract—traditional gender stereotypes, biases, and differences. However, educators who adopt a commitment to gender egalitarianism and thus promote cross-gender interaction, expose pupils to counter-stereotypic models, and discuss and teach challenges to gender stereotyping and harassment optimize their pupils' developmental outcomes (Stromquist, 2008).

Researchers have also suggested that due to the different learning methods of boys and girls, different curricula should be elaborated according to gender and that in some educational areas segregated education would be desirable. The supporters of segregation also emphasize that at the ages of 6 and 7 girls' neurological development is faster than that of boys (although by the age of ten boys tend to have compensated for this) and that girls have better verbal skills, whereas boys have better mathematical and technical skills, based on the results of PISA tests in Hungary and in the OECD countries (see Fényes, 2010b for the details). Furthermore, researchers of education have also cited the impact of textbooks in transmitting role models. Normally, boys are portrayed in these books as independent-minded, whereas girls are passive (Háber & H. Sas, 1980; Kereszty, 2005).

Sax (2005) has also contributed to research in the area of gender differences and education. He has asserted that students are done a great disservice by what he calls “gender-blind education” which has been the trend over the past few decades in America. Essentially, schools are failing to recognize the differences in how boys and girls learn. In an attempt to be politically correct and egalitarian in schools, the differences biologically innate to each gender are overlooked to the detriment of students. According to Sax (2005), gender-blind education leads paradoxically to a strengthening of gender stereotypes rather than the opposite, which is the intention. It has not ameliorated gender differences in important educational outcomes; in some cases, it has exacerbated them.

The school remains one of the social institutions that can and should build a deliberate gender education and a proper socialization to the benefit of society. The gender education should play an important role in the educational system (Molla, 2016).

2.8. Single-sex Education

Simply defined, single-sex education which is also known as single-gender schooling, is a practice of conducting education where male and female students attend separate classes in separate classes or in separate buildings or schools. The question of whether single-sex schooling has any impact on students compared to mixed-gender education or coeducation remains highly contested. Most recently, the increased academic attainments of girls have led to a moral panic about the ‘gender gap’ in academic achievement in Britain and elsewhere, and this has also reinvigorated the debate on single-sex schooling (Epstein, et al. 1998).

2.9. Single-sex Education and its Impacts: What Does Research Tell Us?

Several studies have assessed the impact of single-sex classes within co-educational schools (Jackson and Smith, 2000; Marsh and Rowe, 1996; Shapka and Keating, 2003). A recent review finds inconclusive results, and argues that much depends on the context in which single-sex classes are introduced (Younger and Warrington, 2006). Where single-sex classes are introduced with the aim of raising boys’ achievement, girls may be given less attention and fewer resources.

As Pahlke (2014) puts it, proponents of single-sex education believe that separating boys and girls, by classrooms or schools, increases students’ achievement and academic interest. In his article, he has used meta-analysis to analyze studies that have investigated the effects of students of single-sex compared with coeducational schooling from 184 studies, representing the testing of 1.6 million students in Grades K-12 from 21 different nations for multiple outcomes. Results from the highest quality studies, do not support the view that single-sex schooling provides benefits

compared with coeducational schooling. Claims that single-sex schooling is particularly effective for U.S. ethnic minority boys could not be tested due to the lack of controlled studies on this question.

All these available research has put their emphasis on what impacts single-sex school has on students' academic performance and attainment that they barely try to address the relationship that single-sex schooling can have with gender roles of students which is found to be the very potential gap in the knowledge, hence, what the researcher proposes on filling.

The husband and wife team of Myra and David Sadker (1994) has published a landmark book detailing their more than 20 years of research that came to the same conclusion as the American Association University Women survey. Their book "*Failing at Fairness: How our Schools Cheat Girls*" received a tremendous amount of attention, in both academia and popular media, and alarmed a number of people from feminists and political leaders. The book was aimed both at a broader audience than most research, and parents were encouraged to participate in the educational dialogue rather than simply researchers and educators.

Sadker & Sadker (1994) claim that girls are being done a disservice in their schools because boys receive more attention from teachers and actually dominate classroom activities. As a result, girls are often overlooked and ignored to their own detriment. In addition, teachers encourage boys and girls in different ways. Where girls are praised for their personal appearance and the appearance of their work, boys are praised "most often for the intellectual quality of their ideas" (p.57). This sends the subtle but distinct message to both genders about what is indeed important, and that translates detrimentally for young girls. Teachers also initiate more interaction with boys than girls, which strengthens the boys' notions of self-worth and doing the opposite for girls. The widespread attention these publications received spurred attempts by lawmakers to make changes to Title IX because they viewed single-sex schools as the solution to the crisis that girls face in this nation's schools (Sadker & Sadker, 1994).

Another study was the one conducted by Carter (2005), which investigated whether girls achieve better results in Physical Science in single sex environments or in co-educational classes. Thirteen independent South African schools where children were of similar socio-economic background

were considered. Grade 12 Matriculation Physical Science examination results for 1999 to 2003 were analyzed. Questionnaires were completed by a small number of students in order to compare their attitudes towards Physical Science and examined qualitatively.

There were significant differences found in 2000, 2001 and 2002 to indicate that girls in single sex schools achieved better results in Science than the co-educational schools. However, in 1999 and 2003 there was no significant difference in the results achieved, and so there may be other factors that are more important predictors of achievement than whether the schools are mixed or single sex (Carter, 2005).

A research conducted by Chadwell (2010) provides statistical evidence to support the positive effects of single-sex education, for both boys and girls. He conducted a survey over two years of students, parents, and teachers involved with a single-sex program in South Carolina and found that 50% of students, 60% of parents, and 70% of teachers report a rise in self-confidence, motivation, participation, achievement, and sense of community as evidenced by the students in same-sex classes. In addition, 70% of schools report that discipline referrals for single-sex classes are fewer than in mixed-gender classes.

Chadwell (2010) also reports that the students in the single-sex classes outperform their co-ed counterparts in math, reading, and language arts performance. While this study is not as concerned about achievement so much as attitudes and perceptions, the data in this study still deserve comment. Based on his research, Chadwell (2010) concludes that the success these South Carolina schools have been experiencing is “because the dynamic between boys and girls can cause students to act out, not raise questions, or not take advantage of learning opportunities” (p.16). This research is promising because it suggests that attitude, achievement, and behavior are all positively impacted by the segregation of students along gender lines.

Sullivan, Joshi, and Leonard (2017) examined single-sex schooling to ascertain whether academic attainment throughout the lifetime was impacted. This longitudinal study follows a cohort of 960 students throughout their lifetimes, both male and female, born in 1958 in Britain. The study

examines both the single-sex and coeducational environments for each gender. They attempt to show the impact of single-sex schooling on a range of academic outcomes, including performance on graduation exams, likelihood of attaining a university degree, basic literacy, and participation in educational classes later in life. While the study did not find significant impact of single-sex schooling on later educational attainment for either gender, they did find that single-sex schools were associated with attainment in gender atypical subject areas for both boys and girls. They also determined that “women who had attended single-sex schools were more likely than co-educated women to gain their highest qualification by age 33 in a male-dominated field” (p. 25).

The conclusion of this study is that “single-sex schooling is linked to the attainment of qualifications in gender-atypical subject areas for both sexes, not just during the school years, but also later in life” (p.6). It seems that students who were educated in the single-sex environment were more likely to continue on in their academic careers than their coeducational counterparts. Women have been underrepresented for years in mathematics and sciences (“masculine pursuits”), and men are less likely to participate in “feminine” pursuits such as English and modern languages. Sullivan et al. reject the notion that this is due to personal preference and natural ability, and there are broader gender issues at play. This study lends itself to the research questions at hand in that the pursuit of education in gender-atypical subject areas was directly affected by whether or not the student was educated in a single-sex environment (Sullivan, et al., 2017).

In a study conducted by Gilson (1999), the mathematics achievement and mathematics attitudes of eighth-grade female students attending independent coeducational middle schools were compared with those of students in independent all-girls middle schools. Participants were 467 8th-grade girls from 10 all girls middle schools, 208 girls from 10 independent coeducational middle schools, and 123 11th and 12th grade girls from 2 independent high schools. An attitude questionnaire was completed by all subjects, and achievement test data were obtained.

Results from high school students were used to support attitude measures. The only statistically significant difference in mathematics achievement was found for one (higher) level of the Comprehensive Testing Program. Overall, large differences were not found for mathematics achievement quantitative ability or attitude for mathematics for eighth-grade girls in single-sex or

coeducational schools (Gilson, 1999).

A study was conducted in Istanbul, Turkey by Erarslan & Ranking (2013), which examined the relationship between school type and gender role attitudes among 295 female high school seniors attending four high schools, two single sex and two coeducational that are located in Istanbul, Turkey. The main question for the research was whether the gender composition of schools has an impact on gender role attitudes. Attitudes towards gender roles were operationalized in three domains, which were: 1. Family life, 2. Work life, and 3. Social life.

Erarslan & Ranking (2013) say that the study is significant because of the unique societal context that it provides; this refers to the society where traditional gender ideology and practices persist among many segments of the population and that it is a setting where widely divergent and highly contested views on gender and gender roles are held. Also, the results of the study has added to the existing knowledge about whether school type matters in the construction of gender role attitudes.

Erarslan and Rankin (2013), in their study, forward the positive attributes of single-sex schooling, in this case for girls specifically. They studied young women in four high schools, two all-female and two coeducational. They found that the girls in the single-sex environments held more egalitarian views on gender roles than their coeducational counterparts. This is especially important considering the strict Muslim backgrounds of the females involved.

The single-sex environment may positively affect the expected family life of the students in that they are more open and expecting of a lifestyle that is different than the traditional cultural norms of Turkey. Furthermore, they point out “coed schools often foster traditional gender roles by reinforcing submissive roles for girls” (p.457). In this traditionally conservative environment, it seems that single-sex schools are providing for girls more choices when it comes to developing their own perceptions about gender roles and their identity as females. They caution, however, that their results “give some support to the claim that single-sex schools can socialize students into more egalitarian family life gender roles” they cannot conclude “that single-sex schooling is beneficial for all students” (p.464). Again, the call for more research is made, and the impact of the schooling environment on perceived gender roles is a topic that warrants further investigation (Erarslan and Rankin, 2013).

Shapka and Keating (2014) examined the benefits of girls-only classrooms in terms of attitude and achievement in math and science during grades 9 and 10. This focus on math and science is significant because these are two areas deemed “non-traditional” for females in that women are typically underrepresented in these areas of study. The implications of their underrepresentation are problematic, for as Shapka and Keating (2014) point out “the disproportionately lower female participation rates leave a large portion of the female population at a disadvantage in a technologically challenging and advancing society and economy” (p. 930). They examined the female students’ attitudes toward math and science, and what they called “math anxiety” and were looking to ascertain whether or not negative feelings were lessened in the female environment. In their study, Shapka and Keating (2014) were not able to find an effect on the reduction of math anxiety or attitudes toward math for girls, but they did note that the all-female classrooms had a more positive effect on girls’ math and science performance and persistence than in the coeducational setting. Persistence in math and science is of particular interest here. This is further evidence that there may be a positive correlation between the single-sex environment and math and science persistence in girls.

Bigler and Signorella (2011) chronicle the history of single-sex education in the United States and the factors that have led to its rise of late. They found that throughout the research done in the field of single-sex education, there is much dispute when it comes to research methods and interpreting findings. In some cases, depending on how the data are interpreted, researchers can conclude opposite findings from the same data set. Once again, research is proven lacking for a definitive answer on the topic.

Bigler and Signorella (2011) also examined a number of studies and dissected each individually based on their own strengths and weaknesses. Their conclusion was that there really is no clear consensus on whether or not single-sex education is better or worse (and “better” and “worse” mean different things to different researchers) for students than a coeducational environment, which clearly identifies the need for more research in this area. They cite the difficulty researchers have in quantifying what “better” really is, and what exactly it is about gender-segregated classrooms that may be beneficial, or even harmful. Despite the controversy, they posit an interesting point about all-female schools in particular “that girls and women might benefit from single-sex education because inconclusive research should not be the basis for rejecting an

educational approach, particularly when enough studies show findings to offset those that do not find effects” (p.662).

Overall, the recommendation is clearly made that further research and analysis be conducted to find a definitive answer on the subject of whether or not single-sex education is better or worse for students.

Hoffnung (2011) studied women graduates of both single-sex and co-educational colleges, but was interested in the career and family outcomes for students, and what, if any, effect the gender composition of the school may have had. Her longitudinal study followed 120 women who graduated college in 1993 over the course of 16 years. The women were graduates of three selective colleges, two single-sex and one co-educational. Hoffnung (2011) found no correlation between the single-sex and co-educational colleges in terms of outcomes for women with advanced degrees or participation in careers, which are typically those careers with less female participation.

She could not prove that women who attended single-sex colleges fared differently than women in coeducational colleges when it came to defying gender norms for career and family. She attributes this phenomenon to the notion that America’s universities have, perhaps, become more hospitable to women. In the past, the all-girls college would have provided support for young women, co-educational schools, according to Hoffnung (2011), now seem to do a better job of accommodating women and encouraging them in non-traditional life paths.

The American Association of University Women has also conducted a survey that relates to the topic of study in a way that it shows how gender role attitudes of female students impact the perceptions of their high school experiences, leading to loss of self-esteem as they enter adolescence. The American Association of University Women (AAUW) published two reports (1991 and then again in 1994) that focused on the notion that girls are being shortchanged in schools, and are, therefore, actually harmed in coeducational schools and classrooms. The study synthesized more than 1300 published studies on girls in school and brought widespread attention to the cause for equal education for girls. In addition, the AAUW surveyed some 3000 girls and

boys between grades 4 and 10 to gauge their perceptions of themselves. Gender roles, self-esteem, and identity were all gauged.

The findings of the survey are alarming. It seems that both genders experience a loss of self-esteem as they enter adolescence. The problem is that the loss is greater for girls than it is for boys, for “more boys than girls entering adolescence with high self-esteem, and many more young men than young women leaving adolescence with high self-esteem” (p. 7). The AAUW survey finds that an interest and perceived ability in math and science seem to be tied to adolescent self-esteem. Boys perceive themselves as more adept in these areas than girls do. The supposition is that the loss of self-esteem has a negative impact on the career and life plan choices that girls and boys make. The decline may have a limiting effect on the dreams and future actions of girls in our nation, which is troubling considering that females make up almost half of the workforce. “Girls’ perceptions of their ability in math and science had the strongest relationship to their self-esteem; as girls ‘learn’ that they are not good at these subjects, their sense of self-worth and aspirations for themselves deteriorate” (AAUW, 1994, p. 10).

2.10. Single-sex Schooling in Africa

Education in the continent of Africa is marked by low levels of access by girls. In attempting to address this, UNESCO in the early 1980s endorsed co-education as a major instrument for gender equity. Existing research suggests that in Africa, single-sex schooling has many of the advantages which feminists hoped for in first world contexts. In Nigeria, for example, girls participate and perform significantly better in math than in coed schools (Lee and Lockheed, 1990). In Nigeria too, single-sex schools appear to have played a significant role in promoting girls into science and technology professions (Erinosho, 1997). In the Muslim countries of North Africa, girls' schools have played a positive role under certain conditions. Female teachers and administrators have operated as positive role models and drop out levels and absenteeism have been below average (El-Sanabary, 1989).

According to Morrell (2000), in many parts of Africa, girls' schools, often set up by missionaries, continue to exist and to offer education that appears to better prepare girls for an independent life. It may be asked whether their success is due to the fact that they are single-sex institutions. A range

of other factors might be important - caliber of intake, wealth, nature of the school's resources, and support of the parents may all be significant. Effectively from inception, schools were racially segregated. In the first decade of the twentieth century, schooling for white children became compulsory. English-speaking boys and girls in urban secondary schools undertook study in single-sex environments. Afrikaans speakers were largely in coeducational schools. Few Africans were in school at all, but those that were (mostly boys in mission schools) were in coeducational institutions.

This situation changed little in the next half century. Most African children received little or no schooling. Of those that did, very few were in single-sex institutions. In 1953, the newly elected National party passed the Bantu Education Act, one of the many laws that were to contribute to apartheid. By this Act the state provided compulsory, ideologically loaded, schooling for all African children. This left Africans with virtually no choice in the type of schools they attended. Coeducation was the only form of education delivery for African children (Morrell, 2000).

The debate about single-sex schooling remains undecided. While there are advocates for single-sex schools, both for boys and girls, critics are equally vocal. A round table workshop amongst educators as conducted by Office of Naval Research (as cited in Morrell, 2000) came to the following conclusions:

- There is no evidence that single-sex education in general works or is better than coeducation;
- Single-sex educational programs produce positive results for some students in some settings;
- The long-term impact of single-sex education on girls or boys is unknown;
- No learning environment, single-sex or coed, provides a sure escape from sexism.

Despite policy recommendations to extend single-sex schooling to African girls, there are real dangers that existing institutions will close because of financial pressure. Most single-sex schools for African girls were and remain independent (i.e., privately-funded) and many are faced with bankruptcy. For example, in South Africa, it was only the intervention of Nelson Mandela who in 1999 helped raise R1 million that has ensured that Inanda Seminary will continue to function - and it is one of the better resourced schools of this kind (Morrell, 2000).

These are not conclusions that have been arrived at lightly. Over the last thirty years feminists interested in promoting the interests of girls in schools have looked, from time to time and with varying degrees of optimism, at single-sex schools as one way of making a difference. But these conclusions do not close the debate. More sophisticated research is required to find out who would benefit and how. Research along these lines in Botswana has shown how important it is to have a detailed, context-specific knowledge before acting or run the risk of grand policy failing and of generating unwelcome and unintended results (Fuller, Singer & Keiley, 1999).

2.10.1. Single-sex Schools in South Africa

Single-sex schools have historically been associated with elite education. British public schools (for boys and girls) were invariably single-sex. South Africa, as with most of Britain's colonies, developed its schools according to the British model in the mid to late nineteenth century. The earliest schools for girls established in South Africa in the mid to late nineteenth century were by and large single-sex. Their position in colonial society and the racially exclusive nature of their student intake meant that they were elite schools from the start (Randall, 1982). With the elaboration of the education system, the numerical importance of these schools declined. Today, single-sex schools (for boys and girls) form a very small proportion of the 32,000 schools within the education system. In terms of overall numbers, single-sex schools provide education to only a very small percentage (probably between 1 and 2%) of the 12 million school-going population.

The single-sex schools that do exist, for the most part, continue to occupy elite positions within the education system. For example, in the survey by Edusource/Education Foundation (as cited by Morrell, 2000), of the top 100 schools in South Africa in 1999, 32 girls and 24 boys schools appear. This is a massive overrepresentation in tens of their limited presence in the schooling system as a whole. Up until 1990, with few exceptions, the elite single-sex schools were white schools. Since that time in a process of formal desegregation of the education system, a large number of black children have moved from township schools into formerly white schools, many of which are single-sex. By the end of 1995 there were approximately 200,000 African students in Colored, Indian and formerly white schools (Naidoo, 1996). Yet the class feature of this migration is significant. The former white suburban schools charge relatively high fees (around R6, 000 per

annum compared to R100 for a township secondary school) and thus the black students who now enjoy single-sex education are by and large drawn from the new black middle classes. There is still effectively no public provision of single-sex schools for black working class girls (Morrell, 2000).

The major gender challenge in South Africa is not getting African girls into schools - they already attend in large numbers (Truscott, 1994). The major challenge is to convert the comparative advantage that the access to schooling gives to girls into something palpable like an improvement in their earning capacity or greater independence and public visibility. One of the major obstacles, as already indicated, is the violence that girls face and the effect that this has on their ability to act autonomously.

In South Africa, there is still too little to know about the impact of schools on girls. As Mael (1998) comments, in the US most research "certainly shows a role for single-sex schools (as an option if not a norm), much additional research is needed to clarify which individuals or target populations would gain most from such schooling" (Mael, 1998, p. 121).

Morrell (2000) concludes that single-sex schools are not the answer. They may, however, make an important contribution to transforming the South African education system which still is characterized by gender inequalities. In making this statement, it is important to see schools as having the potential to be sites of change. Despite the fact that schools more often serve to promote stasis and the status quo, they can also make the difference. In the ideal world this would involve bringing both sexes together and working for peace and democracy. In South Africa it may take other, possibly temporary, measures to move towards gender equity.

2.11. Single-sex and Coeducational High Schools & Gender Role

Attitudes of Female Students: What does Research Say?

A Study is conducted by Hartman (2010), which investigated the impact of school type on students' gender role beliefs, as well as their academic and career objectives. She studied 100 female college students attending a U.S. Catholic College who were graduates of both single-sex and Coeducational high schools. The findings of her research revealed that girls who attend single

sex high schools had less traditional views about gender roles, a more positive self-concept, and put a greater emphasis on academic/career success than girls who attended coeducational high schools. She reported that girls from single-sex schools tend to have less traditional views about roles of women and more likely to agree that “women should have a place in the workforce and not feel tied to the role of caretaker (Hartman, 2010).

Brutsaert (1999) has also conducted a macro-study in Belgium in 4 single-sex and 25 coeducational secondary schools. The study found out that there was a greater likelihood for adolescent girls to enhance their gender identity in coeducational than in single-sex schools, and they were compliant with traditional female values and behavioral expectations in mixed school environments. He concludes that stereotyped gender attitudes and behaviors are more pronounced in coeducational schools because gender boundaries are drawn more rigidly in the activities and other daily practices in coeducational schools.

Another study is a research that was conducted by Katsurada and Sugihara (2002), which examined the effects of gender segregated school backgrounds on gender-role identity and attitudes toward marriage with 1,220 college students in Japan. The authors’ assumption was that students perceive various roles in school according to gender and that is usually apparent in coeducational schools in such a way that gender comparisons are made more often between male and female students. In contrast, in gender segregated schools, students have to assume both male and female roles, which led the authors to find that women who graduated from single-sex high schools have nontraditional gender role identities and more liberal attitudes toward age for marriage than those who graduated from coeducational high schools.

Nonetheless, there are also some studies which have found no difference between single-sex and coeducational schools in terms of adolescents’ gender-role attitudes. In Karpiak et al.’s (2007) study at a coeducational university in Pennsylvania, the authors expected women from singlesex high schools to have more egalitarian attitudes than those from coeducational high schools, but the results revealed no significant differences between the two groups. Evidence from a gendered classroom longitudinal study reports similar results. Signorella et al. (1996) studied single-sex and mixed classes in a private, non-religious school in the U.S., comparing adolescents’ gender role stereotyping in the second through twelfth grades. There was significant decrease over time in stereotyping as measured by students’ attitudes toward gender roles in both single-sex and mixed

classrooms, suggesting that there were no detrimental effects of gender composition of classes on gender stereotyping.

In sum, there has been no clear consensus on the effects of school types on gender role attitudes, with some finding less stereotypic gender role attitudes for both single-sex school students and coeducational school students, and others finding no difference among the two. It is also important to note that a close comparison of the studies suggests a number of problems that might explain the discrepancies, including the lack of representative samples, and methodological deficiencies, particular to the difficulty of disentangling the effects of school type and student- and school-level selection effects. In addition, findings may be context-specific, making any generalizations about school type and gender attitude outcomes difficult.

2.12. Single-sex Education: Feminist Perspectives

According to Chrissy (2010), single-sex education is not an issue that divides people neatly across political party lines. Similarly, feminist scholars have disagreed on whether it harms or helps students. Some individual feminist scholars have spoken out in favor of single-sex public schools as a viable option for students. However, major feminist groups have strongly disagreed. The National Organization for Women (NOW) opposes single-sex education, with the belief that “so-called ‘separate but equal’ policies rarely treat girls equally, often relying on outdated sex-stereotypes about girls’ and boys’ interests and abilities.” They also fear that “all-boys schools increase sexism and exacerbate feelings of superiority toward women.” NOW believes that the best way to achieve workplace equality in the future is to enhance, and not eliminate, interaction between boys and girls in the classroom. The Feminist Majority Foundation also opposes single-sex education, arguing that “most efforts to provide sex-segregated education are detrimental and waste resources that instead should be used to end sex stereotyping and discrimination in coeducational environments.” NOW also disagrees with the argument that girls should be provided the option of a safer, harassment-free learning environment.

2.13. Conclusion to Literature

As shown in this section, most of the literature regarding single-sex education compares the single-sex environment with the coeducational one for evidence of the benefits of such. Schools differ dramatically from each other based on different factors, including the students, teachers, administration, and even location. Furthermore, when it comes to contrast with Western and European countries, Ethiopia is very much different in culture, context, belief system and the like.

Though this literature review is not far-reaching, especially on the matters on Ethiopian context (which is due to unreachability of available literature and research materials regarding the matter), it does point to the need for a more in-depth look at single-sex education versus coeducation for females, as there are certainly some interesting phenomena that deserve closer examination. In addition, a lack of consensus on the part of researchers proves that there is room for further exploration of this topic.

2.14. Conceptual Framework

In the previous sections, we have seen various research, articles and books which revolve around single sex schools, gender roles and gender role attitudes, and socialization. Schools (whether single-sex or coeducational) are said to have a strong effect in the formation of students' gender roles and the choice between single-sex education and coeducation has potentially important implications for the gender socialization.

This study tries to investigate whether a relationship exists between single-sex schools and the gender role attitudes of female students by doing a comparative study among the two educational settings; single-sex and co-education. Hence, the researcher employs mixed methodology which has both quantitative and qualitative components.

The quantitative component measures the gender role attitudes of the students by using a Gender Role Attitude Scale prepared by Prasad and Baron (1996) which has four scales in it; Equality, Belief, Moral and Reversal scales. These scales are theoretically conceived to measure different components of the gender ideology of an individual. The study compares the results of these scales among the two educational settings to ascertain a difference between the gender role attitudes, hence implying a relationship between attending single-sex schools and gender role attitudes. Hence, the concept of gender role attitudes is operationalized in-terms of responses towards these four scales.

The qualitative component of the study potentially investigates parental influence on having to be in such an educational setting as well as being oneself; how the gender composition of their respective schools affected the levels of comfort the girls feel in being themselves in school. Below in figure 1 is the conceptual framework proposed for the study.

Figure 1. Conceptual Framework

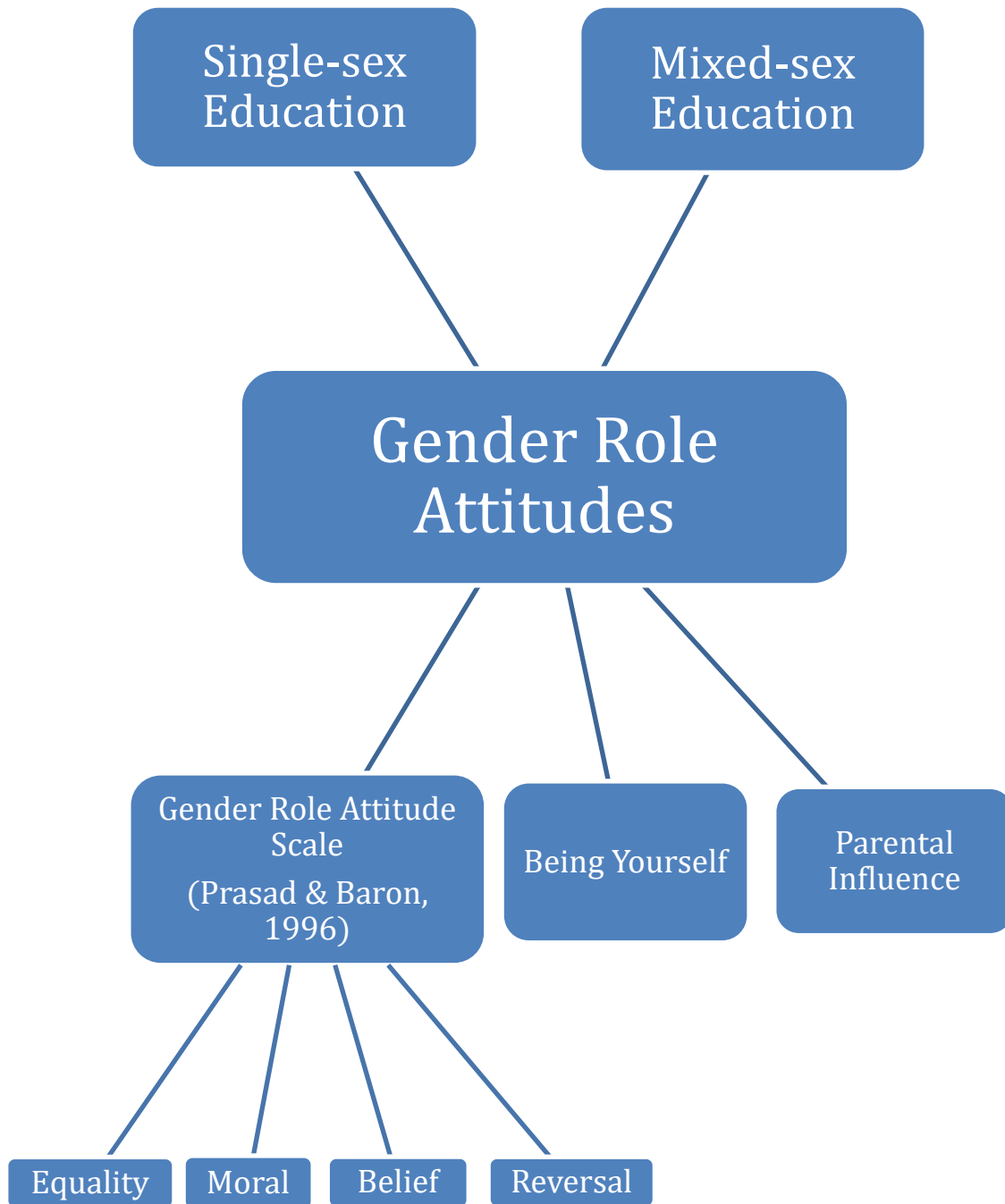


Figure 2. Gender Role Attitude Scale Measurement (Prasad and Baron, 1996)

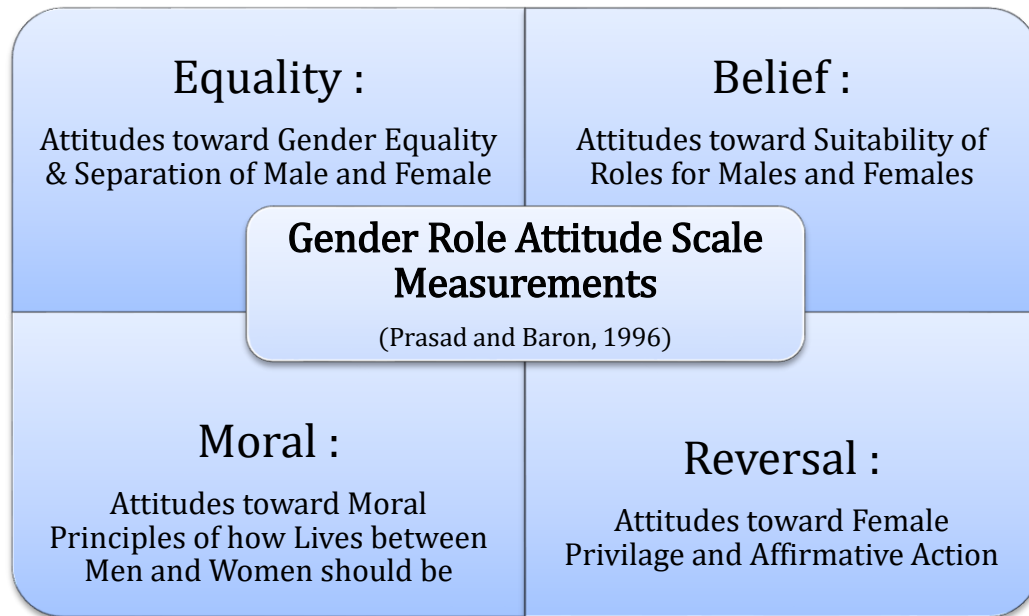


Figure 3. Gender Role Attitude Measurement



CHAPTER THREE: RESEARCH METHDODOLOGY

This section of the study discusses the research design, sampling techniques, data sources, research site (location of the study) and data collection techniques. It also explains why the researcher has opted for a mixed research approach.

The research framework is determined by the objectives and research questions of a research which is the procedure taken for this study. The main focus of this study is to explore and understand if a relationship exists between the attitudes of female students towards gender roles and attending a single-sex school and it has opted to measure the gender role attitudes of female students in a single sex as well as mixed sex school.

This study, therefore, has employed mixed methodology, i.e., qualitative and quantitative as the researcher's main interest was examining if there is a relationship between the gender role attitudes of students and single sex schools. Different people have different perspectives of this world, of how things are and how they should be in accordance with their socialization. Hence, the study has employed research participants' own point of view to understand the relationship under investigation by focusing on the experience and attitude of the students themselves. The purpose was to explore whether the students' gender role attitudes have a relationship with attending a school in which they learn with the same sex.

According to Kent (2015), a quantitative research typically explores specific and clearly defined questions that examine the relationship between two events or occurrences, where the second event is related to the first event. Quantitative data is often gathered through surveys and questionnaires that are carefully developed and structured to provide with numerical data that can be explored statistically and yield a result that can be generalized to some larger population.

On the other hand, qualitative research provides detailed description and analysis of the quality or the substance of the human experience. Mixed methods procedures employ aspects of both quantitative methods and qualitative procedures. Mixed methods research has increased in popularity in recent years, and this chapter highlights important developments in the use of this

design. Researchers obtain an introduction to mixed methods research as practiced today and the types of designs that might be used in a research proposal (Creswell, 2009).

As the research was conducted on one school having two settings (single sex and co-educational), the outcomes of the research will be limited to that study area in that context but the final conclusion can be tested on further research with a different context and study area as to figure out other possible variables.

3.1. Research Design

According to Onwuegbuzie & Collins (2007), most mixed method designs utilize time orientation dimension as its base. Time orientation refers to whether the qualitative and quantitative phases of the study occur at approximately the same point in time such that they are independent of one another (i.e., concurrent) or whether these two components occur one after the other such that the latter phase is dependent, to some degree, on the former phase (i.e., sequential).

An example of a concurrent mixed methods design is a study examining attitudes toward reading and reading strategies among fifth-grade students that involves administering a survey containing both closed-ended items (e.g., Likert-format responses that measure attitudes toward reading) and open-ended questions (i.e., that elicit qualitative information about the students' reading strategies). Once a decision has been made about the mixed method purpose, the next step is for the researcher to select a mixed methods sampling design. Two criteria are useful here: time orientation (i.e., concurrent vs. sequential) and relationship of the qualitative and quantitative samples (Onwuegbuzie & Collins, 2007).

The time orientation used for this study is concurrent design using identical samples for both qualitative and quantitative components of the study. An identical relationship is the one which indicates that the same sample members participate in both the qualitative and quantitative phases of the study (e.g., administering a survey of reading attitudes and reading strategies to a class of fourth graders that contains both closed- and open-ended items, yielding quantitative and qualitative phases that occur simultaneously).

Similarly in this study, the researcher used identical samples for both components; the students who were participants in the interview were among the ones that participated in the survey. Moreover, both the qualitative and quantitative components took place at the same time; the interview was carried out right after the students were through with the survey.

3.2. Sources of Data

3.2.1. Primary Sources of Data

Primary sources of data were used to gather firsthand information which explores the relationship between single-sex schools and the gender role attitudes of female students. The primary sources used for the study were data gathered from senior female students in Nativity Girls' School and Lideta Catholic Cathedral School. Hence, the survey that was conducted using questionnaire and an in-depth interview from the study sample was used as a tool for gathering the primary sources of data for the study. Furthermore, statistical data and information about students in the schools which was gained from the unit leaders and school principals was also used as a primary source in understanding the institutional context of the schools.

3.2.2. Secondary Sources of Data

Secondary data were used to see what previous studies have found out and to identify gaps. For the sake of making this research more valid and worthy, relevant secondary sources helpful to this study were reviewed. These included: published and unpublished materials like books, journals and articles.

3.3. Sampling Techniques

Sampling, which is the process of selecting a portion, piece, or segment that is representative of a whole, is an important step in the research process because it helps to inform the quality of inferences made by the researcher that stem from the underlying findings (Onwuegbuzie & Collins, 2007).

In both quantitative and qualitative studies, researchers must decide the number of participants to select (i.e., sample size) and how to select these sample members (i.e., sampling scheme). While the decisions can be difficult for both qualitative and quantitative researchers, sampling strategies are even more complex for studies in which qualitative and quantitative research approaches are combined either concurrently or sequentially (Onwuegbuzie & Collins, 2007).

Among the typology of types of mixed methods sampling, the sampling used for this study is the basic strategy that involves combining quantitative and qualitative sampling, i.e. stratified random sampling and purposive sampling respectively.

The sampling technique that is used for the quantitative study is a stratified random sampling. As Goel (2014) describes it, stratified sampling is a procedure that enables one to draw a sample with any desired degree of representation of the different parts of the population by taking them as strata. In this sampling, the population consisting of N units is first divided into K populations of $N_1, N_2, N_3, \dots, N_k$ units respectively. These sub-populations are non-overlapping and together they comprise the whole of the population. These sub-populations are called strata. When the strata have been determined, a sample is drawn from each stratum, the drawings being made independently in different strata. A simple random sample will be taken from each stratum, hence making the procedure a stratified random sampling.

The researcher was able to get the number of students in the two schools from the unit leaders. There were 6 sections for the 12th grade in LCCS (co-education) comprising of 193 male and 172 female students, 365 students overall. 10 female students were randomly drawn from each section, hence giving 60 female students from the coeducational setting. Alternatively, in NGS where it's all female students, there were 142 students in the 12th grade distributed among 3 sections. Therefore, 20 students from each section were drawn giving 60 female students from a single-sex setting.

The sampling technique which was be used for the qualitative study is non-probability/purposive sampling or a criterion sampling which involves searching for individuals or cases who meet a certain criterion, for example; that they have a certain disease or have had a particular life experience. One criterion for picking these students was that they enrolled into the school when

they reached the level of junior high and high school. This is considered for the sake of understanding parental influence on school selection for the reason that if those who enrolled at the elementary level were included, it wouldn't make much difference on who made the school choice because students are not considered to be grown enough to decide and they are not self-aware at the elementary level. Having participated in the survey, interviewee with the above criterion were picked voluntarily; 5 samples from each sub-population from the two educational settings.

3.4. Sample Size

The size of sample should be informed primarily by the research objective, research questions and subsequently the research design. In addition to deciding how to select the samples for the qualitative and quantitative components of a study, mixed methods researchers also should determine appropriate sample sizes for each phase. The choice of sample size is important because it determines the extent to which the researcher can make statistical and/or analytic generalizations. As put by Onwuegbuzie et al. (2004), among the minimum sample size recommendations for most common quantitative and qualitative research designs, the minimum sample size suggestion for a Casual-comparative research method is 64 participants. A casual-comparative design is a research design that seeks to find relationships between independent and dependent variables after an action or event has already occurred.

According to this study, for the quantitative component, the two groups or strata were female senior students in Nativity Girls' School and female senior students in Lideta Catholic Cathedral School respectively. The number of respondents was 60 students from each strata, 120 samples from all sample population. In the data collection procedure for the qualitative study, a semi-structured interview has been carried on with 10 willing participants of the same sample population; 5 female senior students from single-sex education and 5 female senior students from co-education.

3.5. The Study Site

The study site for this research has been chosen to be Cathedral High School located at Piassa, Addis Ababa. This research site was chosen for the fact that it contains all the sample type and sample population that was needed to conduct the research, i.e., single-sex and coeducational school settings in the same campus. They are both Catholic schools located in the same area with students of comparable socioeconomic status which helps to control for some potentially confounding socioeconomic effects.

3.6. The Study Population

As the time orientation used for this study is concurrent design, which uses identical samples indicating the same sample members participate in both the qualitative and quantitative phases of the study, the study population is the same for both procedures. The population chosen for this study were female senior students of Nativity Catholic Girls' School (Single-sex School) and Lideta Catholic Cathedral School (Mixed Education School). The participants in this study were students in two different Catholic schools, a possible liability. While girls in these two schools may have differed from each other, the two schools did share many similar features: Catholic schools, located in Addis Ababa at a central place in Piassa, similar tuition, similar entrance requirements, and similar birth place composition. Similar schools were deliberately chosen in an attempt to reduce the influence of extraneous variables. Potential effects not related to school type but to extraneous factors had to be identified and taken into account in interpreting the results of the statistical analysis of the data. In addition, researcher has chosen this setting because it has allowed to explore and compare the gender role attitudes that the students have developed throughout the years while staying in that school with such environmental setting (either single sex or coeducational). In addition, they grow into being more matured as reaching this stage (preparatory level) which makes them able to express their attitudes towards gender roles.

3.7. Data Collection Instruments

For the sake of exploring the relationship between being in a single-sex school and gender role attitudes, the researcher has employed an adapted standardized questionnaire and a semi-structured interview with open ended questions as the main tools throughout the study. These tools were used with the belief that data gathered through different data collecting instruments would produce richer empirical evidence. In doing so, the researcher was mindful of the benefit of using multiple sources. According to Cresswell (2003), employing multiple data collection instruments helps the researcher to combine, strengthen and amend some inadequacies of the data gathered by a single instrument.

3.7.1. Survey Questionnaire

A questionnaire is said to be standardized when each respondent is to be exposed to the same questions and the same system of coding responses. The aim of using questionnaire as an instrument was to ensure that differences in responses to questions can be interpreted as reflecting differences among the respondents. A formal questionnaire is a survey instrument used to collect data from individuals about themselves, or about a social unit such as a household or a school. (Maria, 2005).

According to Maria (2005), the types of information that can be collected by means of questionnaire are facts, activities, and level of knowledge, opinions, expectations and aspirations, membership of various groups, and attitudes and perceptions.

For this study, a gender role attitude survey was used to collect relevant information needed for the study. The survey items were adapted from an instrument created by Prasad and Baron (1996) in which the researcher followed the general design and substantially modified the content of some items to make the statements clearer for the participants. This was to make the questionnaire more reliable by eliminating unnecessary questions which were mostly repetitions. The instrument was designed to measure the attitudes of subjects toward gender and gender roles. The survey items specifically focus on measuring attitudes rather than gender-typed personality traits, which is why the survey is particularly useful for this study. The underlying assumption was that the items on the survey are neither correct nor incorrect, simply a metric of attitudes toward gender.

The results from the two groups, i.e. senior female students from the single-sex and from the coeducational school, surveyed were compared to ascertain whether there is a difference between gender role attitudes for the students in the two environments. The survey contains a number of statements in regard to gender roles. The statements are opinions about gender roles that the participants were asked to respond to using a 5-point Likert Scale (*see Appendix 1*).

The initial survey by Prasad and Baron (1996) was developed as a new approach to gauge gender role attitudes. Their survey consists of a number of items that were created to ascertain core beliefs of individuals in regard to gender equality and separation of males and females, beliefs about differences in the suitability of males and females for various roles, and general moral principles concerning equality and inequality. It contains a number of statements that are relative to gender in terms of beliefs about gender, moral principles and policies.

The items in the survey are further broken down into scales, which can be used on their own. These are: Gender Equality, Gender Belief, Moral Belief and Reversal of Gender Norms, each of which were presented taking 10 items, comprising 40 items in total. The *Equality* scale is thought to assess attitudes towards gender equality as opposed to the current situation of male privilege which measured the attitudes toward gender equality and separation of males and female; the *Belief* scale which is supposed to assess assumptions not based on rational knowledge but often on prejudices and cultural stereotypes on the characteristics of women and men and states about the differences in the suitability of males and females for various roles, the *Moral* scale which was conceived to measure moral principles on how lives and relationships between men and women should be; and the *Reversal* scale which is supposed to measure attitudes towards an eventual situation of female privilege and could be considered to assess attitudes favorable to affirmative action (previously called positive discrimination), which in other way contained items that support actively reversing present inequality between the sexes, i.e. a reversal of the norm to favor women rather than men (Prasad & Baron, 1996).

These scales are theoretically conceived to measure different components of the gender ideology of an individual. The authors report that they are correlated with each other, which is put in Table 1, since psychological factors assessed in the different scales relate logically with each other (i.e. beliefs about what women and men are determine attitudes about whether gender equality is possible and/or desirable, moral principles on how women and men should live and relate to each

other, and ideas on the desirableness of gender segregation or the need to establish affirmative action measures) (Prasad & Baron, 1996).

In developing the questionnaire, Prasad and Baron (1996) state that their questionnaire allows the researcher to examine the “internal consistency of policy attitudes, moral values, and beliefs” (p. 1). The questionnaire was designed for use with a number of different student subjects from a wide variety of cultures, as the results from their validity data suggest consistency (see Table 1). The survey was administered to a sample of college students, and the researchers were able to distinguish between groups who took the survey based on the results, such as the distinction between “males from females, foreign and domestic subjects, more acculturated and less acculturated foreign subjects, and Islamic and Christian foreign subjects” (Prasad and Baron, 1996, p. 1).

This indicates that the measures are valid. The survey was proven to be both internally consistent and valid, which is why it is being used for the purposes of this research. The revised questionnaire was also tested on ten students among the population who were not participants in the main study. Gate-keeper effects have also played a big role. The gate-keepers were the unit leaders of the 12th grade for both schools. They were in the chain of access to the samples and has also viewed the instrument to test and consider if there were language issues and unclear or repeated statements as to eliminate them for they might bore or turn away the participants from actively responding to the statements.

Table 1. Correlations among Gender Role Survey Scales by Prasad and Baron (1996)

	Equal (E)	Reverse (R)	Belief (B)	Moral (M)
Reversal (R)	0.145			
Equal (E)		0.148		
Belief (B)	0.733	0.142		
Moral (M)	0.550	0.331	0.575	
Acculturated Foreigners	0.344	0.143	0.459	0.322
Islam Vs. Christian	0.697	-0.095	0.460	0.269

P < .05

All of the scales except for the reversal correlated strongly with each other, suggesting a single general source of individual differences in gender-role attitudes.

All the correlations among the scales in the table are significant at $p < .05$, but it is apparent that those involving the reversal role scale are much lower than the others. The correlation between Reversal and Moral is the highest of these because the moral scale contains some items that favored reversing the usual gender roles. The Cronbach α of this scale is respectively: Equal, .964, Reversal, .774, Belief, .907, Moral, .734 naturally. Prasad and Baron's (1996) results indicate that "the questionnaire seems reliable and valid. It would make sense to use it in studies which intend to measure attitudes towards gender roles. We grouped the items together so that it could easily be used in this way. For example, the equality scale could be used on its own, or the belief scale. Each is sufficiently reliable. Further validation of the questionnaire also comes from the correlation of its scales with each other, with acculturation and with religion." (p. 4)

3.7.2. Interview

As for the qualitative approach, a semi-structured interview was used to collect information because it helps to have a focused information on the subject matter, helps both the interviewer and interviewee not to stray away from the subject matter under study though it helps to have a better understanding.

Among the participants in the survey, students were asked to volunteer for interview, and among the volunteers, interviewee were selected through purposive random sampling. The interviews were intended to provide more robust insight into the results of the survey and ascertain from the students themselves what effect, if any, the absence or presence of the opposite sex in school has on their ideas about gender roles.

The interview has 10 questions which are self-developed by the researcher. Since the respondents might not be comfortable to conduct the interview in English, it was conducted in Amharic and responses were later translated to English. The interview took place in the school compounds. The questions themselves are based on the items of the survey. The intention was to provide a more in-

depth look of any phenomena that is occurring in either the schooling environment, and potentially explain from a more personal narrative perspective, the answers that were recorded on the survey.

The interview questions were formulated so that both sets of subjects receive the same questions essentially, though altered to reflect the appropriate gender context of the school. In addition, interviews were conducted using open-ended questions so that the students were able to provide an authentic reporting experience, rather than an experience that may align with any theoretical leanings regarding the effects of single-sex education on girls.

3.8. Procedures of Data Collection and Analysis

The survey and interviews were conducted during the school day at a time that was mutually convenient for the students, school administration, and the researcher.

The Administrators for both schools granted permission to conduct research in the schools, and the unit leaders at both schools granted access to their students. In addition, the intentions, purpose, and research design were explained to the principals at each of the two schools. The intent was to be as non-disruptive as possible to the students, faculty, administration, and the school in general. It was challenging at times to collect the data in an efficient way, and the intention was to conduct the initial survey with students during their homeroom period. This was due to the reason that homeroom attendance is compulsory, so there was somewhat of a guarantee that the survey would reach the largest number possible within that time period.

In both schools, the homeroom teachers were very cooperative. After drawing samples from the population, students were escorted to a computer lab (in NGS) and library (in LCCS) and given time to complete the survey before returning back to class.

Because of the support of the schools and the homeroom teachers, 108 surveys were collected, 56 from NGS and 52 from LCCS. There was significantly more difficulty involved in collecting surveys from the students at the coeducational school. Several dates were scheduled for me to enter the building and access students during homeroom. Twice the dates were also rescheduled NGS due to the study breaks given for the students due to the 12th Grade National Examination. It was

increasingly difficult to arrange for a time that was not disruptive to the students, school administration, teachers, or the researcher.

The survey data were compiled, and follow-up interviews were conducted with the students who indicated their willingness to participate after conducting the survey. These interviews were conducted during the school day at a time that was mutually convenient for the students, school administration, and me. Again, the concern here was to neither become intrusive nor disruptive to the school environment, so the intention was that interviews would be conducted during the students' lunch and/or study hall periods. Five subjects were interviewed from each of the sites. The interviews were conducted using several questions as a guide (*see Appendix 2*). The questions themselves were based on the items in the survey making the analysis of the results of the survey more robust.

For the quantitative approach, the research design is casual comparative which has used the adapted gender role attitude survey that was distributed to all parts of the sample population. The participants were asked to react to each statement using a Likert scale and the results of their reactions were then analyzed in terms of the student's attitudes toward gender.

Each content or items in the survey were analyzed based on a five point Likert scale with points starting from "strongly agree" (1) to "strongly disagree" (5). The data were collected by the researcher who committed her time and energy and went to each school to distribute and collect the questionnaires from both settings (self-administered). After the data is collected, the survey data were compiled and follow-up interviews conducted with the students who indicated their willingness to participate.

The data which were collected from the respondents through the questionnaires were analyzed quantitatively. The quantitative component of the data was analyzed by using SPSS 20.0 software, which is one of the most widely used survey analysis computer programs that focuses exclusively on variable based statistical analysis.

Frequency counts were used to analyze the attitudes of the population as it helps to determine the relative standing of the respondents. By using SPSS 20.0 software, the means for the four scales of the questionnaire were analyzed to compare the data from the two schools. In addition to it, the standard deviation and t-test were calculated. The data from the two groups were compared, and

patterns of meaning in the interview responses examined. The intent was to examine whether or not there is a relationship between students' gender role and the single-sex or coeducational schooling environment.

On the qualitative approach, in analyzing the data which were obtained through an interview, summary of the responses was prepared and the content of the responses were put accordingly. The qualitative interviews with the students were mainly taken to reveal recurring issues regarding the individual experiences of the students in each environment. It is clear that students in the single-sex school as well as in the coeducational school originally enrolled because of various reasons. When reaching the level of junior high and high school, the decision and factors to be considered will not only be made by parents but also by the students themselves. This helps to understand the experience of young females in these two educational settings, and ascertain from them directly how they construct meaning from their own experiences.

These responses were analyzed in order to provide more robust insight into the results of the survey and ascertain from the students themselves what effect, if any, the absence or presence of the opposite sex in school has on their attitudes towards gender roles. The analysis of the qualitative data is distinct from the quantitative in a way that it was able to provide an authentic reporting of experience from the respondents' own point of view rather than an experience that may align with presented ideas and statements.

When analyzing the qualitative data, the researcher's primary focus was on finding common themes between the two groups of students, rather than evidence that would support any potential bias toward single-sex education. Ethically, all attempts were made to impact the environment as little as possible so as not to disrupt the education of the students.

3.9. Ethical Consideration

Efforts were made to make the research process professional and ethical. To this end, the researcher tried to clearly inform the respondents about the purpose of the study i.e., mainly for academic. As the purpose was introduced in the introduction part of the questionnaire and interview guide to the respondents, the researcher confirms that the respondents and confidentiality are protected. The researcher also does not personalize or brand any of the response of the

respondents during data presentations, analysis and interpretation. Furthermore, all the materials which are used for this research are duly acknowledged.

In the process of conducting this study, the researcher had developed an informed consent form that included:

- An information explaining who the researcher is, including the contact details, along with the purpose of the questionnaire, explaining why they are taking part in the data collection, what happens if they agree to participate, how long it will take, and how assured the confidentiality will be.
- A consent form which included statements that the participant has understood what they will be involved in while filling out the questionnaire.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

This chapter of the study deals with the analysis and presentation of the data gathered through survey questionnaire and interview. It discusses the quantitative and qualitative data that was collected according to the research questions. The results from the analysis and presentation of the data are intended to focus on the central question of the study: What relationship, if any, does the schooling environment in terms of gender (single-sex or coeducational) has on gender role attitudes of female students?

As the research was a mixed method study, the quantitative component was conducted by administering an adapted gender role attitude survey questionnaire while the qualitative portion used face-to-face interview for the aim of acquiring detailed information from the participants. One Hundred and Twenty questionnaires were administered to the sample population for the quantitative component of the study and among these, 108 were filled and returned properly (56 questionnaires from Single-sex and 52 questionnaires from Coeducational).

The data which were collected from the participants through the survey questionnaire were analyzed by using SPSS 20.0 software. Percentage and frequency counts were mainly used to analyze the attitudes of the population as it helps to determine the relative standing of the respondents. The data from the two groups (single-sex and mixed-sex environment) were compared, and patterns of meaning in the interview responses examined. The intent was to examine whether or not there is a relationship between students' gender role attitudes and the single-sex or coeducational schooling environment.

4.1. Personal Background Information of Participants

The subjects for the study were all female students, learning in Cathedral High School which has two schools within: NGS (an all-girls high school) and LCCS (co-educational high school). All the participants were seniors attending the 12th grade. The following table presents background information of the respondents.

Table 2. Personal Background Information of Participants

Description		NGS (Single-sex)		LCCS (Coeducation)		Total	
		Freq.	(%)	Freq.	(%)	Freq.	(%)
Sex	Male	N/A	N/A	N/A	N/A	N/A	N/A
	Female	56	51.9%	52	48.1%	108	100%
Age	15-17	27	48.2%	17	32.7%	44	40.7%
	18-20	15	26.7%	25	48%	40	37%
	20-22	11	19.6%	8	15.3%	19	17.6%
	23 & above	3	5.5%	2	4%	5	4.7%
Family Situation (Living with-)	Mother & Father	39	69.6%	33	63.4%	72	66.6%
	Single Parent	7	12.5%	12	23%	19	17.6%
	Same-sex Parents	N/A	N/A	N/A	N/A	N/A	N/A
	Other	10	17.8%	7	13.4%	17	15.7%
Place of Birth	Addis Ababa	51	91%	45	86.5%	96	88.9%
	Urban City out of Addis Ababa	3	5.3%	4	7.7%	7	6.5%
	Rural City out of Addis Ababa	2	3.5%	3	5.8%	5	4.6%

From the above table, Table 2, it is shown that all respondents were female students from both schools comprising a total of 108 students of the sample population. Regarding their age, majority of them are between the age ranges of 15 – 17 which is 40.7% of the total study population. However, when seen separately, the majority of the students’ age from NGS ranges in 15- 17 (48.2%) while in LCCS, it ranges in 18-20 (48%). Family situation is another part in the questionnaire and in NGS and LCCS, majority of the students live with their mother and father, which is 69.6% and 63.4% respectively. None of the respondents live with same-sex parents as well. Considering the place of birth of the respondents, 89% of the study population are born in

Addis Ababa while the rest 11% come from out of Addis Ababa; 6% from urban cities and 5% from rural cities.

One issue that confound this study that needed further consideration was that the study was conducted in schools that are Catholic by affiliation and identity. The researcher has attempted to examine if this factor has an impact on the formation of identity and what role, if any, that plays in the construction of the attitudes of female students towards gender roles. In trying to capture and understand the institutional context of the schools, the school principals as well as the unit leaders stated that the religion context of the schools doesn't impact the students with regards to their own religion as well as their attitudes towards gender roles from a religious aspect. The teachers, staff members as well as other work force in the schools are not hired with the criteria of being Catholic in religion. The schools also lend themselves easily to comparison, for they are both the same district and their curricula are nearly identical. In addition, as stated before and as shown in Table 2, the students at each school are drawn from the same geographical area, which implies similar socioeconomic status.

4.2. Comparison of the Two Schools for Types of Survey Items

The survey questionnaire that has been adapted for this study is a gender role attitude survey questionnaire which was created by Prasad and Baron (1996). This instrument was designed to measure the attitudes of subjects toward gender and gender roles. The items in the survey specifically focus on measuring attitudes rather than gender-typed personal traits.

As mentioned earlier, the items in the survey are divided into four categories; Equity, Belief, Moral and Reversal, each of which were presented taking 10 items, comprising 40 items in total. The *Equity* category measured the attitudes toward gender equality and separation of males and female, the *Belief* category about the differences in the suitability of males and females for various roles, the *Moral* category about principles concerning gender equality and inequality, and the *Reversal* category contained items that support actively reversing present inequality between the sexes, i.e. a reversal of the norm to favor women rather than men (Prasad & Baron, 1996).

4.2.

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Hereunder presented is the means and standard deviation for gender perceptions of the students.

Table 3: Comparison of Both Sites for Types of Survey Items

Items	Mean (Standard Deviation) for Single-Sex (NGS)	Mean (Standard Deviation) for Co-Educational (LCCS)	Significance
Equity	4.28 (.389)	4.30 (.399)	.818 (NS)
Belief	3.94 (.592)	3.94 (.676)	.986 (NS)
Moral	2.69 (.432)	2.64 (.414)	.504 (NS)
Reversal	3.58 (.297)	3.44 (.300)	.026 (P<.05)

As presented in Table 3, in three out of the four categories, there are no differences between the two schools. Students from both schools do not vary in terms of their attitudes about gender roles when it comes to *Equity*, *Belief* as well as *Moral* statements. The only category of statements that revealed a significant difference between the two schools is *Reversal*.

As a reminder, Role Reversal refers to the perception of normative gender roles. A typical question from this scale is as follows: “Boys should be encouraged to do things that girls usually do, and girls should be encouraged to do things that boys usually do”.

Since girls in the single-sex school (NGS) had a significantly higher mean, the results indicate that these students more typically support the reversal of gender roles. This suggests that these students feel that it is not enough to desire equality between the sexes, but they also agree with having a female advantage over males. The subjects in the coeducational school did not show the same tendency toward the reversal of gender norms.

One possible explanation is that, without the exposure to negative influence of boys on a daily basis, perhaps girls are better able to envision a world in which women are the dominant gender. In classrooms that are laden with the “subtle sexism” that Sadker and Sadker (1994) warn against,

it may become easy for young women in coeducational classrooms to become accustomed to the gender norms of society, and even ascribe to them.

The students in the single-sex environment were no more or less traditional in terms of gender perception and anticipated gender roles in life than the students in the coeducational environment overall. They, however, were significantly less traditional than students in the coeducational school in terms of their notions about the reversal of gender norms. In terms of anticipated gender-roles, the students in the coeducational environment were no more or less traditional in terms of anticipated gender roles in life than the students in the single-sex environment overall.

In a classroom environment devoid of the opposite sex, it is possible that young women are freer to imagine a society in which the order is inverted (Lee and Bryk, 1986). Either way, this area is worthy of further investigation.

4.3. Comparison of Items with Significant Differences

As an analysis relevant to answer the central research question, the data for all the individual items under their categories from the survey questionnaire were analyzed to compare the data from the two schools. Still put under their category, there were eight items where a significant difference was found in their means among the two schools. These results are presented in Table 4.

Table 4. Comparison of Items with Significant Differences

Items from the Questionnaire		Mean for Single-sex	Mean for Coeducation
Equality	2. Boys & girls should be encouraged to do the same things.	4.58	4.11
Moral	26. Men should give up their seat to women on the train or bus.	2.45	3.12
Reversal	31. There should be special quotas for women in government jobs.	3.00	3.55
	32. School teachers should devote more effort to encouraging girls in science and math than they devote to boys.	3.68	4.13

Reversal	33. Girls should be given priority in using gyms, and other sport facilities in schools.	1.94	3.54
	34. Girls should be given priority in using computers at school.	2.58	3.38
	37. More men should go into Nursing and Elementary-school teaching.	3.66	4.19
	40. In college classes, professors should call on women more than men when they raise their hands.	2.94	3.37

From Table 4, it is evident that there are appears to be differences between the mean for the two schools which mainly implies that the statements in the *Reversal* category are the ones with significant differences in its means. Perhaps, these differences are more due to the nature of the environment of the school rather than directly about gender roles. For example, it’s not surprising that girls in the coeducational school should want priority in using the gym as well as indicate such a perception about using computers. One possible explanation can be that boys engage in computer and sport activities more than girls do that girls may be shy or feel powerless to compete or to participate in such activities, that they may need priority to do so. But this won’t be an issue in an all-girls school since there won’t be no competition, hence why female in coeducation school would want priority to use computers, gyms and other sport facilities while those in single-sex school won’t consider this as an issue.

4.4. Comparison among the Scale Means

As additional analyses, the four components of the gender perception were analyzed against each other through a repeated measures ANOVA. School was added to this analysis as a between subjects factor. The analysis found that the four scales were significantly different from each other with a large effect size ($F_{3, 369} = 316.54, p = .000, \text{partial eta squared} = .720$). The means for the four scales are presented in Table 5 with comparisons among the means noted.

Table 5. Comparison among the Scale Means

		Morals	Reversal	Beliefs	Equity
Morals	2.68	-			
Reversal	3.55	.000	-		
Beliefs	3.94	.000	NS	-	
Equity	4.29	.000	.000	.000	-

As shown in Table 5, the students in both schools have the strongest perception of equity with is significantly higher than all other beliefs and the weakest perception of morals.

4.5. Face-to-Face Interview

As a reminder, the research questions which were mainly answered by the interview were as follows:

RQ4: How do female students in the single sex school perceive their high school experience in terms of being segregated by gender?

RQ5: How do female students in the coeducational environment perceive their high school experience in terms of the mixed gender composition of the school?

4.5.1. Background Information of Interview Subjects

Among the students who participated in the original survey group, those who were voluntary for a face-to-face interview were identified and with the criterion of enrolling into the schools when they reached the level of junior high and high school., ten students were chosen; five from each research site. The students were asked a number of questions and they were invited to elaborate on points that they made during the interview.

A semi-structured interview guide was employed as a tool in which the questions served as a guide to the conversation, and the students were free to discuss their ideas as they related to their school and schooling environment. The transcripts of the interview were analyzed, and key concepts were identified.

The background information for the subjects of the face-to-face interviews are shown in Table 6. For the sake of confidentiality, the researcher has pseudonyms to the subjects.

Table 6. Background Information of Interviewee

	Name	Age	Place of Birth	Level of Enrollment
NGS (Single-sex Education)	Selam	19	Addis Ababa	High School
	Kalkidan	17	Dire Dawa	Junior High
	Melat	19	Addis Ababa	High School
	Meti	18	Addis Ababa	High School
	Yordanos	20	Addis Ababa	Junior High
	LCCS (Co-Education)	Blen	19	Addis Ababa
Ayda		17	Harrar	High School
Betty		17	Addis Ababa	High School
Heran		20	Addis Ababa	High School
Meron		21	Addis Ababa	High School

4.5.2. Parental Influence on School Selection

Throughout the interviews with the students, it became clear that there was one main difference between the two schools in the reasons one school environment was chosen over another. In the all-girls school, it became clear that the decision to attend an all-girls school was influenced strongly by the desire of the students' parents. The students in the all-girls school were asked if they considered the fact that their school was all-girls when they made the decision to enroll. Their responses were as follows:

Kalkidan (Single-Sex)

Kalkidan: I did take it into large consideration considering that I had come from a co-ed school.

Researcher: So you wanted to be in an all-girls school?

Kalkidan: Not necessarily...I wasn't opposed to it. My parents were more for it. Since I was coming from far away they thought it would be an easier adjustment in an all-girls than a co-ed school.

Researcher: Why did they think that, you think?

Kalkidan: Not so much of, like, the pressures of impressing the boys and all the cattiness that goes along with interaction between schoolgirls and boys.

Researcher: So your parents were largely a part of that decision?

Kalkidan: Yeah. At first I was opposed.

Selam (Single-Sex)

Researcher: Were you really excited about going to an all-girls school?

Selam: Well, actually I kind of picked it because my brother went to an all-boys school. So my mom was like 'ooh why don't we do something like your brother?' I was like 'OK.'

Researcher: So, did you like the idea or was it your family that liked it more?

Selam: Yeah my family really.

Melat (Single-Sex)

Melat: I pretty much decided to go here because my mom and my aunt went here and that's where she wanted me to go. I didn't really think much about it because I didn't have much of a choice.

The responses of the students in the single-sex school indicate that the decision to attend an all-girls school was mostly made by their parents. They did not indicate any inclination toward the school themselves because of the single-sex student makeup. It was their families that pushed for the enrollment.

This would indicate that the parents of students in a single-sex school made the conscious decision to send their daughters there, and the single-sex environment was certainly a factor. Explaining the main claims their parents made the decision for them to attend a single-sex education, the students said that it was mainly for academic purpose:

- That both boys and girls are more likely to achieve their academic potential in a single-sex environment;
- That both sexes, but particularly girls, are less likely to be put off subjects that they are good at and like because these subjects are perceived as being for the other sex.

This stands in stark comparison to the students in the coeducational school, who indicate that the decision to enroll in a coeducational school was mostly theirs. Answering similar question, students from the coeducational school explain who made the decision of their enrollment as follows:

Meron (Co-educational)

Meron: Well, I was, like, looking at an all-girls school, but my sister went here so. And it's right around the corner from my house so it's just kind of like an easy decision...but part of me wanted to go to a boys and girls school. Like, I don't have a reason why, but I feel like I just didn't want to be with all girls.

Betty (Co-educational)

Betty: I did go to an all-girls as well as a coeducational school when I was in elementary level. They are both good schools, but I thought it was important to go to a co-ed school and my parents just respected my choice.

Explaining the main claims they made the decision to attend a coeducational school than single-sex education, the students said that it was mainly to do with personal and social development. They also reasoned that the sexes learning together, especially at this point of junior high and high school, brings a number of benefits including:

- Greater happiness, better behavior and fuller emotional development; and
- Smoother transition to the mixed environment of university and life generally.

The choice between single-sex education and coeducation has potentially important implications for the gender socialization of adolescents. Theories of gender-role development underline the impact of environment on the formation of gender roles.

Implementation of single-sex schooling requires evidence-based arguments to be put into practice by the policy makers and educators, yet such evidence is lacking in many parts of the world. As

Halpern et al. (2011, p. 1707) explain, “the contrast between the segregated classroom and the mixed-sex structure of the surrounding world provides evidence to children that sex is a core human characteristic along which adults organize education”. This echoes earlier claims by coeducational school proponents about the more realistic and socially integrated environment of coeducational settings. Those who favor coeducation argue that single-sex schools are not realistic environments because in real life girls and boys need to learn to interact in cooperative and competitive ways and this ability is improved through their socialization in coeducational schools (Dale 1971).

One researcher, Harris (1986), found that students who had attended single-sex schools took longer to adjust to the coeducational atmosphere of a university. Nevertheless, even if coeducational schools have some social advantages over single-sex schools, this does not mean that all students should necessarily attend such a school. There are many reasons why parents choose a particular school for their sons and daughters. Excellent schools may be coeducational or single sex. At the present state of knowledge, the best evidence suggests that, as far as the benefits of coeducational and single-sex schools are concerned, the result is a draw. There are no clear advantages of one type of school over another. Most educators would recommend, then, that schools try innovative strategies to produce excellent results so that their graduates are happy with the total experience of their secondary education. Educating the "whole child" is a worthwhile goal of any school, irrespective of whether it is coeducational or single-sex.

It was clear that students in the single-sex school and students in the coeducational school originally enrolled because of different reasons. The students in the single-sex school reported that their parents had a great influence on their decision to attend. In contrast, the students in the coeducational school reported making the decision themselves. This would indicate that the parents of students in a single-sex school made the conscious decision to send their daughters there, and the single-sex environment was certainly a factor.

It is reasonable to argue that the parents preferred the environment to the coeducational one because of the gender composition, mainly because the two schools are located in close proximity to each other. There are viable public transportation options to both schools, and they are both in the same district and draw from the same elementary schools for enrollment. Parents saw the value in a single-sex education for their daughters, whether because of empirical evidence or the like, and made the decision to enroll their child.

Lee and Bryk (1986) addressed the possibility of selection effects for the positive results they found for all-girls' schools in their analysis of single-sex and coeducational schools and concluded that: "it is always possible that students and parents choose single-sex schools for other reasons that can also explain the observed results... but the preponderance of the evidence that we assembled tends to support a school effect rather than a selection-hypothesis explanation" (p. 392).

4.5.3. Being Yourself

Both groups of students expressed how the gender composition of their respective schools affected the levels of comfort the girls feel in being themselves in school. The students in the all-girls school expressed that they felt comfortable in presenting themselves in a more relaxed and authentic way than the students in the coeducational school.

Kalkidan (Single-Sex)

Kalkidan: I've gotten really close with the girls that are here. And there aren't guys. There isn't that divide. I can be myself and there's not, I don't feel like I have to impress anybody. I can just be myself.

Researcher: Did you find that when there were boys around you had to act differently?

Kalkidan: Not necessarily *had* to but I could see in myself and the people around me that it's just our age. It's something that you do, even if you don't want to.

Yordanos (Single-Sex)

Yordanos: It's cool to be smart here. Because every time boys are in class, like, or around, girls change how they act. That is so annoying. They'll try to act cooler.

They really will.

Meti (Single-Sex)

Meti: Here the girls aren't as afraid to ask questions because they don't care what the other girls think. Like, you ask a stupid question and we all just laugh it off. And with guys, they don't want to be embarrassed so, like, some girls I've seen that. Some girls, they don't care. They couldn't care less. Like, I have some of my friends, like, who are very shy around guys, so they don't want

to ask a stupid question in front of them so they were more reserved. The girls here are just, you have a question, and you just ask it.

Selam (Single-Sex)

Selam: I don't have to wake up at, like, 6 o'clock and do my hair, even though I probably wouldn't anyway, but still.

Researcher: So you don't have to worry about the way you look?

Selam: Noooo! We all look the same!

Meron (Co-educational)

Researcher: Do you find that people act differently when boys are around? Girls act differently around boys?

Meron: Yes...not a lot of girls, but some girls I know. It used to be worse, like, when we were younger, freshmen and stuff. But, they just, like act obnoxious. It's annoying. Like showing off or making a big deal out of everything. It's just not necessary.

Blen (Co-educational)

Researcher: How do you think your school would be different if there were no boys in it?

Blen: If there were no boys, I think it would be tremendously different. I believe the overall atmosphere throughout the hallways would be different and honestly I think some of the girls would act completely different since there would be no one to impress. I also think some of the rules wouldn't be so strictly enforced.

The qualitative interviews with the students revealed additional salient information regarding the individual experiences of the students in each environment.

The major theme that emerged from the interviews with students is the notion that female students behave differently when members of the opposite sex are around. Both groups reported the same ideas about behavior in that sense. The students in the single-sex school, however, expressed that they felt able to behave more like "themselves" because the "pressure" of having males around

was not a factor. Likewise, the students in the coeducational school reported that they and their peers are more likely to act in an unnatural way because males are present.

Hoffnung (2011) in her comparison of women graduates of all-girls and coeducational colleges found that single-sex graduates more frequently indicated that their college had provided a supportive environment.

This finding speaks to the same notion of single-sex schools for females being supportive, in this case supportive of the students expressing themselves naturally. So, while the students in the single-sex school in this study were similar to their coeducational counterparts in terms of gender role beliefs, they may be receiving some advantage over their peers in terms of support and encouragement. Riordan (1985) suggests that Single-sex schools may be particularly advantageous for girls because the top students in all subjects will be females who will serve as role models. The teachers also will be predominantly women, especially in Catholic schools, although this is not the case in the schools which were under study.

Sadker and Sadker (1994) echo the notion that the single-sex environment is supportive of girls' development and promotes natural self-expression for young women. Since boys are typically given more attention in classrooms than girls, when there are no boys present, girls are able to take center stage without the competition from the opposite sex. Boys cast in starring classroom roles are often high achievers...unlike the smart boy who flourishes in the classroom, the smart girls is the student who is least likely to be recognized. Boys are not present to dominate classroom activity and be assigned a starring role, so girls are given the opportunity to shine.

Rather than being a barrier to successful adolescent cross-sex socialization as some critics would suggest, the single-sex environment seems to be successful, by the accounts of students themselves, in breaking down barriers for young women. The reversal section of the survey would suggest this, and it is clearly supported by the student interviews.

As one of the subjects from the coeducational school mentioned, "I believe the overall atmosphere throughout the hallways would be different and honestly I think some of the girls would act completely different since there would be no one to impress." The boys do not serve as a distraction in the classroom in a single-sex school, and girls can then explore their own self-expression in

their absence. The statements of one of the all-girls subjects support this: “It’s cool to be smart here. Because every time boys are in class, like, or around, girls change how they act.”

Furthermore, another student from the single-sex school agrees, “I can be myself and there’s not, I don’t feel like I have to impress anybody. I can just be myself.” In addition, the girls in the all-girls school feel that they are better able to take risks in the classroom. As one student put it “I have some of my friends, like, who are very shy around guys, so they don’t want to ask a stupid question in front of them so they were more reserved. The girls here are just, you have a question, and you just ask it.”

According to Smith (1998), most reviews of the academic advantages of single-sex over coeducational schooling conclude that there are no clear winners in this race. A causal relationship between type of schooling and academic achievement has not been established. Smith (1998) asserts that there may be social advantages in students attending a coeducational secondary school in that it reflects the coeducational society into which the students will graduate. There is research evidence that student self-concept is increased by attending a coeducational school.

In opposition to Smith’s (1998) study, the interview component of the study has revealed that students in the single-sex school expressed that their choice of high school gender composition was most greatly influenced by their parents and these students expressed that they felt comfortable being themselves in the gender segregated environment and did not feel compelled to behave in an unnatural way because there were no members of the opposite sex around.

On the other hand, the students in the coeducational school indicated that the choice of a coeducational high school was mostly theirs, and was not greatly influenced by their parents’ preferences. They also have expressed frustration with the need on the part of some females to act in an odd or atypical way in the school because of the presence of the opposite sex. This finding of the study inclines towards single-sex schools being beneficial for girls in such a way that they become able to be themselves without any external pressure and to pursue whatever activity they want in the school.

If the existence of boys affect the way girls behave and act in the school, it most certainly affects their gender role attitudes and their perceptions towards it. Pryor’s (1994) study asserts that gender role attitudes made a contribution to the variance in self-esteem on girls among boys. Female students with low levels of positive feminine attributes and high levels of negative feminine

attributes were most likely to have low self-esteem around boys. As it was mentioned earlier, the boys do not serve as a distraction in the classroom in a single-sex school, and girls can then explore their own self-expression in their absence without any influence of the opposite-sex on their attitudes. This supports the findings from the survey about the reversal gender norms in which without the exposure to negative influence of boys on a daily basis, perhaps girls are better able to envision a world in which women are the dominant gender and that in a school environment devoid of the opposite sex, it is possible that young women are freer to imagine a society in which the order is inverted.

Future research on this topic would benefit from a more in-depth study of school environments, including curriculum and instructional materials, but also information that can only be gleaned through participant observation of the school environment to discover how gender is performed in classrooms, sports facilities and elsewhere. Research is also needed to address longer-term questions, such as whether gender role attitudes observed in high school change over the life course, for example, as women matriculate through college, enter the labor force, and form families. A follow-up study would help us to see if there is a discrepancy between student attitudes towards gender issues they will face as adults and actual behavior of those students at that life stage. Such a longitudinal design may provide better evidence of long-term advantages or disadvantages of attending single-sex versus coeducational schools.

In sum, more research is needed on different aspects of single-sex and coeducation where more empirical studies are needed to inform political and policy debates over the benefits of one type of education over another.

CHAPTER FIVE: SUMMARY AND CONCLUSION

This chapter presents summary of the findings and conclusion part of the study which stems from the research results and review of relevant literatures on the subject matter of the study.

5.1. Summary of Findings

This research serves to add to the literature on the subject of single- sex education for girls. The debate is current and consistent as to whether or not the single-sex environment is beneficial for both sexes. The study has used mixed methods which was determined by the objectives and research questions of the research. The main focus of the study was to understand the relationship that exists between the attitudes of female students towards gender roles and single-sex schools.

The study, therefore, has employed mixed methodology, i.e., qualitative and quantitative approach. The time orientation used for the study was concurrent design which used identical samples for both the qualitative and quantitative components of the study. The primary data sources used for the study were survey that was conducted using an adapted questionnaire and a face-to-face interview carried out with the study population. On the other hand, the secondary sources of the data were relevant sources which included materials like previously conducted research, articles, journals and books.

The researcher has attempted to answer five research questions, two qualitative and three quantitative. The questions are connected under one central question: What relationship, if any, does the schooling environment in terms of gender (single-sex or coeducational) has with the gender role attitudes of students? The research questions were 1.) What kind of gender role attitudes are expressed by female students in single-sex school setting? 2) What kind of gender role attitudes are expressed by female students in mixed-sex school setting? And 3) are there significant differences in the gender role attitude of girls who attend a single-sex school as contrasted to girls who attend a coeducational school? 4.) How do students in the single-sex school perceive their high school experience in terms of being segregated by gender? And 5.) How do students in the coeducational environment perceive their high school experience in terms of the mixed gender composition of the school?

According to the findings of the study, the students in both the single-sex school and the coeducational school did not differ, for the most part, in their perceptions about gender roles. A Gender Role Attitudes survey was administered to students in both environments. There were four categories of questions on the survey: *E* (gender equality), *R* (reversal of gender norms), *B* (gender belief), and *M* (moral belief). There was no significant difference between the students except for the reversal (*R*) scale. There are 10 items out of the 40 on the survey that are categorized as Reversal (*R*) items. The reversal items support actively reversing present inequality between the sexes (*see Appendix B*). So, instead of promoting equality between the sexes, these items indicate a reversal of the norm to favor women rather than men.

Interestingly, this was the only category of question that showed a significant difference between the two subject groups. The subjects in the single-sex school were more favorably inclined to support the reversal of gender inequality. This suggests that these students feel that it is not enough to desire equality between the sexes, but they also agree with having a female advantage over males. The subjects in the coeducational school did not show the same tendency toward the reversal of gender norms.

The qualitative component of the study has revealed that students in the single-sex school expressed that their choice of high school gender composition was most greatly influenced by their parents and these students expressed that they felt comfortable being themselves in the gender segregated environment and did not feel compelled to behave in an unnatural way because there were no members of the opposite sex around.

On the other hand, the students in the coeducational school indicated that the choice of a coeducational high school was mostly theirs, and was not greatly influenced by their parents' preferences. They also have expressed frustration with the need on the part of some females to act in an unnatural way in the school because of the presence of the opposite sex. This finding of the study inclines towards single-sex schools being beneficial for girls in such a way that they become able to be themselves without any external pressure and to pursue whatever activity they want in the school.

5.2. Conclusions and Recommendation

The topic of single-sex education has been garnering a lot of attention of late, both by lawmakers and in popular media. Recent developments in brain-based research have confirmed the inherent differences in the ways in which boys and girls learn. In addition, legislative changes have made it easier for single-sex opportunities to exist. The timeliness of this study is important, as its intention was to add to the body of literature on single-sex education for young women. This research study sought to ascertain whether or not the single-sex high school environment has a positive effect on young women in terms of encouraging non-traditional gender role perception and life plans. The experience with single-sex education, both for boys and girls, indicates the need for further exploration of this topic.

Based on existing research and the findings of this study, single-sex schooling for girls may be essential for our society for what happens to girls in school is cause for grave concern. Girls begin first grade with comparable skills and ambition to boys, but by the time girls finish high school, most have suffered a disproportionate loss of confidence in their academic abilities (AAUW Survey, 1994).

Overall, this study was unable to determine whether the single-sex environment is advantageous in terms of promoting non-traditional gender role perceptions for high school females. The significance that was revealed in terms of the reversal of gender roles does indicate, however, that something is occurring for single-sex students, and more research is needed in this area. If the single-sex environment is able to provide young women with an environment that enables them to reimagine the paradigm of gender roles, then there is an advantage there. Rather than promoting the status quo of gender roles and perpetuating sexism, single-sex schools may prove to be the solution to the breakdown of gender norms. They could potentially function to support the promotion of gender equality. In addition, the environment, as expressed by the girls themselves, provides a comfortable environment in which girls feel they can be themselves, there is merit to such an environment.

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APPENDIX 1

**ADDIS ABABA UNIVERSITY
COLLEGE OF DEVELOPMENT STUDIES
CENTER FOR GENDER STUDIES**

Survey Questionnaire

(Prepared for Senior Female High-School Students in NGS & LCCS)

The purpose of this study is to investigate the relationship between attending a single-sex school and the attitudes of female students towards gender roles in Cathedral High-school. The questionnaire has forty items easily put for answering.

Hence, you are kindly requested to provide only thoughtful and honest responses that will give the most valuable information for the research. The researcher wants to assure you that this research is intended fully and purely for academic purpose and all information that you provide will be used only for research purpose and kept confidential. For any further request or questions regarding this survey, you can find information of the research and contact details of the researcher with your unit leader.

NB: Please do not write your name in any part of the questionnaire.

Thank you in advance for your cooperation!

Seble Tesfaye

I. Personal Background Information

Direction: Please check by writing a “√” mark on the space provided against the items.

1. **Sex:** Male _____ Female _____

2. **Age:**

a. 15-17 _____

b. 18-20 _____

c. 20-22 _____

d. 23 and above _____

3. **Family Situation: With whom do you live?**

a. Mother and father _____

b. Single parent _____

c. Same sex parents _____

d. Other (please specify) _____.

4. **Place of Birth:**

a. Addis Ababa _____

b. Urban city outside of Addis Ababa _____

c. Rural area outside of Addis Ababa _____

5. **School Setting**

a. Nativity Girls' School (Single-Sex) _____

b. Lideta Catholic Cathedral School (Co-educational) _____

Direction: (Tick or Circle: 1= Strongly agree 2=Agree 3=Neutral 4=Disagree 5=Strongly disagree)

Section One: Gender Equality Items

1. The responsibility of taking care of infants should be equally divided between parents, irrespective of their gender.	1 2 3 4 5
2. Boys and girls should be encouraged to do the same things.	1 2 3 4 5
3. The husband and wife should have equal responsibility to contribute to the family income by working.	1 2 3 4 5
4. Families should provide daughters with as much inheritance as sons, and as much authority over the use of inherited funds.	1 2 3 4 5
5. Men should be allowed to have paternity leave as much as women do without fear of losing their job while they are away.	1 2 3 4 5
6. Husbands and wives should have equal roles in decisions about investments.	1 2 3 4 5
7. Husbands and wives should have equal roles in decisions about the education and care of their children.	1 2 3 4 5
8. The husband and wife should have equal responsibility for household work other than child care.	1 2 3 4 5
9. Both parents should have equal say in the decision to have a child.	1 2 3 4 5
10. Even if men are naturally better than women at something, we should try to make sure that equal numbers of men and women do that thing.	1 2 3 4 5

Section Two: Gender Belief Items

11. Men and women are naturally interested in different topics for conversation.	1 2 3 4 5
12. Boys should be encouraged to do what boys are naturally good at, and girls should be encouraged to do what girls are naturally good at.	1 2 3 4 5
13. Women and men should be respected in different ways.	1 2 3 4 5

14. Men are better suited for higher education than women.	1 2 3 4 5
15. Women are better suited for child care than men.	1 2 3 4 5
16. Women in the military should be kept out of certain combat roles.	1 2 3 4 5
17. If one parent is to care for a child, the child develops better if it is the mother rather than the father.	1 2 3 4 5
18. Men should not think badly of women who ask them for a date.	1 2 3 4 5
19. In college student residence, men and women should not live together on the same floor.	1 2 3 4 5
20. There are occasions in which women and men should eat separately.	1 2 3 4 5

Section Three: Moral Belief Items

21. There should be no differential dress codes for men and women at workplaces, for example, codes saying that women must wear skirts.	1 2 3 4 5
22. Because most pornography is particularly demeaning to women, films and magazines depicting women as sex objects should be regulated by law.	1 2 3 4 5
23. There should be concerted efforts to raise children with a non-sexist orientation, at home and in schools.	1 2 3 4 5
24. In religious services, men and women should be together.	1 2 3 4 5
25. Fathers and mothers should be treated equally by the law in child custody cases. It should be parent's circumstances that matter, not parent's gender.	1 2 3 4 5
26. Men should give up their seat to women on the taxi, train or bus.	1 2 3 4 5
27. At a social dinner, men and women should stay together rather than separate.	1 2 3 4 5
28. Human beings evolved so that men have authority in the family.	1 2 3 4 5
29. Human beings evolved in such a way that men need more sex partners than women.	1 2 3 4 5
30. It is not the business of government to worry about the different roles played by women and men.	1 2 3 4 5

Section Four: Reversal Gender Norm Items

31. There should be special quotas (# of people to be hired) for women in government jobs.	1 2 3 4 5
32. School teachers should devote more effort to encouraging girls in science and math than they devote to boys.	1 2 3 4 5
33. Girls should be given priority in using gyms, and other sport facilities in schools.	1 2 3 4 5
34. Girls should be given priority in using computers at school.	1 2 3 4 5
35. Governments and hospitals should provide more health care facilities for women than men.	1 2 3 4 5
36. Women who stay home and take care of children should be allowed to declare themselves employed for tax purposes.	1 2 3 4 5
37. More men should go into Nursing and Elementary-school teaching.	1 2 3 4 5
38. People in jobs traditionally done by women should be paid more, compared to people in jobs traditionally done by men.	1 2 3 4 5
39. Families should spend more money on the education of daughters than on the education of sons.	1 2 3 4 5
40. In high school classes, teachers/professors should call on women more than men when they raise their hands.	1 2 3 4 5

APPENDIX 2

Interview Guide

As the intention is to develop a rapport and encourage a conversational exchange, the questions listed below were used as a guide in the semi-structured interview. The interview questions were dependent largely on student responses to the structured survey. The students were asked to explain further their opinions on male/female gender and societal roles.

Open-Ended Interview Questions

I. Protocol for Interview

Script for opening the interview

Hello. My name is Seble Tesfaye. I would like to thank you for taking the time to meet with me today. I would like to talk to you about your opinions regarding gender role – specifically how you feel about the roles that men and women should have in society.

The interview should not take more than 20-30 minutes. I will be taking notes during that time so that I can accurately recall our conversation at a later time. All of your responses to my questions are kept confidential, and I am the only person who will have access to any information that would identify you. We do not have to talk about anything that you do not want to, nor with which you are uncomfortable. You are free to withdraw participation in this interview at any time.

Do you have any questions about anything that I have just said?

Are you willing to participate in this interview?

II. Personal Background Information

1. Age
2. Place of Birth
3. Level of Enrollment

III. For Single-sex students:

1. Are you in favor of or against the educational setting (single-sex) you're in?
2. Was it mainly your decision or your parents' that you're in a single-sex school as you are in high school level?
3. How do you feel about being in a school that does not have boys in it?
4. Do you think your experience in the school would be different if boys were in it?
5. Do you think your school setting may have an impact on your beliefs toward gender?

IV. For Co-educational students:

1. Are you in favor of or against the educational setting (mixed-sex) you're in?
2. Was it mainly your decision or your parents' that you're in a mixed-sex school as you are in high school level?
3. How do you feel about being in school together with boys?
4. Do you think your experience in the school would be different if it was gender segregated?
5. Do you think your school setting may have an impact on your beliefs toward gender?