EXPLORATIONS AND REFLECTIONS:
GENDERED EXPERIENCES IN TEACHING AND LEARNING

A Thesis

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DEDICATION

This thesis is dedicated to the support and love of those who have played an instrumental role in my academic journey. Their encouragement, guidance, and belief in my abilities have been invaluable, and I am grateful for their presence in my life.

To my parents, who have inspired me throughout my life. Thank you for your guidance, encouragement, and sacrifices you have made to ensure my education.

To my sister. You have been my confidante in times of doubt, offering perspective and guidance when I needed it most. Thank you for being a constant source of inspiration.

I am deeply grateful to all of you. This thesis is a testament to our collective efforts and your impact on my life. This achievement would not have been possible without your love, guidance, and support.

- Francesca
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I want to extend my heartfelt appreciation to other critical contributors that have shaped my educational journey.

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ABSTRACT

This thesis explores the history of women’s access to education and the issues of gender disparity in education. I focus on single-gendered schools as I write from personal experience to describe the benefits for individuals in single-gender educational systems. I cite conflicting research on how men and women learn regarding biological, cognitive, and developmental differences.

I illuminate some of the benefits of single-gendered education through research, experience, and personal communications. I write about the controversies and disparities regarding education and single-gender schools.

I document research on the issues women face in education and the politics of women’s bodies and minds in educational spaces. In these spaces, I explore the importance of educating individuals and provide evidence for the importance of inclusion and accessibility.
MINI MEMOIR

I am a product of a single-gendered educational system. For the first 17 years, I attended a single-gender girl’s school in New England, starting early childhood education at 16 months old through 12th grade. This school was founded in 1884 by Ann Ives Carrington Ames. She was a mother to Daisy and believed that her daughter and other girls like her deserved access to a formal education that was not always available to girls (Lincoln School, 2022). Since then, the school has expanded and grown to educate thousands of young people in every aspect, whether their interests are in art, athletics, science, technology, and more.

The school I attended in New England’s philosophy is rooted in Quaker traditions and beliefs. The testimonies of Simplicity, Peace, Integrity, Community, Equality, Service, and Stewardship of the Earth, the “SPICES,” are observed and practiced in the daily lives of the students and faculty. Weekly silent meetings and assemblies curate reflection on the shared values of love, loyalty, and lowliness. The school strives for each student to reach academic excellence and to become a respectful and meaningful member of today’s community (Lincoln School, 2022).

My memories of my experience at this school go back as far as I can
remember. In my earliest years of Pre-Kindergarten, I fondly remember a particular room called “The Studio.” The Studio was dimly lit, smelt of rich spices, scattered with bold colors, and had branches hung from its ceiling with nests burrowed in its crevices. It had floor-to-ceiling shelving, each shelf color coordinated with jars full of sea glass, shells, wool, acorns, beads, fibers, and more. We were encouraged to touch, feel, smell, play, and ask anything about everything displayed in this room. I believe my eagerness to learn developed from the influential teacher that ran The Studio, Ms. Calanda. She prompted us to observe and create, and many of our projects were erupting with color and had sophisticated uses of mixed media. She taught us about nature, science, and art through applied practices.
Ms. Calanda taught us about the Earth, how to respect what nature provides us, and how to be resourceful. One of her projects brought us to her farm, where we harvested wool from her sheep. We used this wool to learn how to use natural dyes. We made beautiful matted art pieces and strung collected beads wherever we wanted. We also used the dyed wool to create yarn. With the yarn, Ms. Calanda taught us how to knit. Throughout this process, she encouraged us to ask questions and taught us that even though we skipped a
stitch, we should not abandon the project but work through what we had done. These learned skills are carried into different aspects of my life.

The Upper School art program offered similar practices. In my senior year, I declared myself an Art Major, which sculpted my curriculum around building a portfolio for college applications. Anita Thompson was my advisor and my art major teacher. Her love of students and the art-making process pushed me to become a better student. Anita observed our strengths in our art-making abilities and helped cultivate our weaknesses through instruction and demonstration. Many projects involved working two-dimensional, such as live model figure drawing and self-portraiture, and three-dimensional, like creating subtractive sculptures. Anita nurtured my love for experimenting and learning in the art world.

The Lifers was a term coined for a few of us, as some of my closest friends were individuals I met before I was two years old and were still enrolled. These friendships that were fostered will be held close dearly in my life. This school allowed me to cultivate long-lasting friendships, connections, perseverance, and a skill set I will carry with me throughout my adult life.

After graduating from highschool, I pursued a BFA and MA at the Rhode Island School of Design. RISD was founded by a small group of women in 1877
before women could vote in America. Helen Adelia Rowe Metcalf was crucial in persuading the Rhode Island government to invest funds to establish a school of art and design. The college aimed to support the thriving textile and jewelry industry in the state (Rhode Island School of Design, n.d.). Although RISD was not established and is not currently a single-gender institution, its founding by women is a monumental accomplishment regarding educational history. It proves a group of women's transformative power to challenge societal norms and expectations.

I am interested in gendered experiences in teaching and learning because of my personal experiences in a single-gender institution. I write from personal experience and include narratives from individuals in these spaces. In my research, I cite oppositions and accomplishments for women in educational history and how they transformed education today. I report statistics and proposed scientific studies comparing men and women. It is essential to reflect on the history of accessibility of education across genders, socioeconomic status, racial background, and other characteristics that shape society.
RESEARCH QUESTIONS

A series of questions guide this research. These questions funneled resources to exhibit the history of gender in education.

My main research question stems from my experience in a single-gender educational institution. I focus on women to cast an overview of history in the advancements of accessibility to education for women.

I wish to shed light on the single-gender educational system and its benefits for me and others. To exhibit an unbiased perspective, I present research from opposing beliefs on the benefits of single-gender and co-educational schooling. I conclude my research by exploring ideas and provocations for the future of cis-gender and non-conforming students in single-gender spaces.
These questions guide my research:

- What is the history of women’s education?
- What are some of the barriers that contribute to the disparity in education for women?
- What are the effects of gender disparity in education on economic development and social progress?
- How have specific global events exacerbated existing gender disparities in education?
- How has the historical progression of women’s education impacted gender equality and women’s empowerment globally?
- What are the specific challenges girls from marginalized communities face in accessing quality education, and how can these challenges be addressed?
- Is there a difference between how boys and girls learn?
- What are the advantages and disadvantages of single-gender educational spaces versus co-educational spaces?
METHODOLOGY

This thesis is compiled through research based on proposed guiding questions. I cite articles and journals that best illustrate my ideas, thoughts, and feelings. In this body of work, I have recorded a snapshot of the history of education. I observed data from educational researchers and journalists, who compared men and women and their supposed biological and learning differences. I record their opposing beliefs on whether single-gender or co-educational spaces are favorable or detrimental to the learner. I include figures of statistics of women in educational spaces.

I document personal experiences and include independent narratives from fellow students and teachers in single-gender education, including personal communications and dialogues. This body of work will bring the reader closer to the research and feel connected to those who feel strongly about their experiences.
The scope of my thesis research is focused on women's education and single-gender educational experiences. I write about single-gender education compared to co-education, focusing on women in these spaces. I limit my scope to exploring single-gender girls' education and will only use research about single-gender boys' education as necessary to illustrate points in my writing. I express these thoughts as a researcher, learner, and educator because of my personal experience and interests in the topic.

I understand my stance as a former student of a single-gender girl's school and a cis-gender woman who attended a gender-inclusive undergraduate and graduate program.

I understand the scope of my project is to include some historical background about gender and education, biology-based and social theories of gender and education, and narratives of teachers and former students in single-gender schools.
INTRODUCTION

What is the history of gender in education? What is women’s history in education? What are the varying effects on men and women in single-gendered educational spaces? This thesis explores the history of education, focusing on women in single-gendered education. I write from personal experience because I am interested in seeking the benefits for women and men in single-gender educational systems. I cite conflicting research on how men and women learn regarding biological, cognitive, and developmental differences.

With this research, I aim to illuminate some of the benefits and potential difficulties stemming from single-gendered education. I write about the controversies, stereotypes, and assumptions of individuals that attend single-gender schools while looking for research on the issues that women face in education and the politics of women’s bodies and minds in educational spaces. I explore the importance of educating under-represented individuals and provide evidence for the importance of inclusion and accessibility. That said, I am interested in understanding the perspectives of gender non-conforming students in these gender-defined spaces.
This thesis contains a brief history of single-gender education; personal experience; research on single-gender educational experiences; and intimate conversations with teachers and friends who have taught or have been educated through single-gendered and co-ed spaces. My thesis includes personal communications and dialogues to bring the reader closer to the research and connect them to those who feel strongly about their experiences.

In this research, I explore the history of education, the accessibility and effectiveness of single-gender institutions, and the importance of educating under-represented individuals in different industries, interests, and careers. Additionally, I investigate the gaps in research about gender nonconformity and single-gender institutions.
LITERATURE REVIEW

Historically, there has been a significant disparity in the quality and accessibility of education for women. A report by UNICEF, The State of the World’s Children 2015, outlines the factors influencing these significant disparities. The report notes that while progress has been made in increasing girls’ education access, many barriers remain, including poverty, gender-based violence, early marriage, and social and cultural norms prioritizing boys’ education over girls’. The report cites data showing that globally, 31 million girls of primary school age are out of school, and 17 million girls will likely never attend school. Additionally, girls are more likely to drop out of school early, with only 70% of girls completing primary education compared to 86% of boys.

These disparities are even more pronounced in low-income countries, where girls are more likely to be out of school and less likely to complete their education. This report emphasizes that addressing the gender disparities in education requires increasing access to education for girls and addressing the social and cultural factors that contribute to gender inequality more broadly. The report calls for policies and programs that prioritize girls’ education, challenge gender norms and stereotypes, and address the root causes of gender-based discrimination (UNICEF, 2015).
Traditional gender views emphasized women’s domestic responsibilities over their intellectual and academic aspirations. They were expected and strictly enforced to prioritize marriage, family, and domestic duties over education. It was believed that it was “...against a woman’s nature and that too much knowledge could affect women’s fertility,” and in Britain, briefly educating women was solely seen as making them “…better wives and mothers…” (Women’s Education 2023). These social conceptions of the capabilities of women further perpetuated the perception that women were inferior and, therefore, not worthy of receiving an education. These perceptions made men believe that an educated woman was dangerous and a potential risk to uproot their power dynamics, structure, and dominance. A Greek dramatist, alive a few hundred years B.C., pronounced that “He who teaches a woman letters, feeds more poison to the frightful asp,” the biblical term for serpent (Clabaugh, 1986, p.167).
An interesting parallel to today’s society is extremist groups and their fear of educating women. An article titled “What Makes Terrorists Scared? Educated Girls” explores the ideas and connections between girls’ education and terrorism. The article highlights the transformative power of educating girls and
its potential to combat terrorism. It argues that educated girls pose a threat to extremist ideologies and that women can contribute significantly to building peaceful and stable societies. When girls are educated, demography changes. According to the article, an educated woman, on average, will have a significantly smaller family, which correlates in some countries with a decrease in the risk of civil war. The article writes about a study in Nigeria that found that for every percentage point that increases the population of young men ages 15 to 24, the risk of civil war increases by 4 percent (Kristof, 2014).

The author discusses how terrorist groups greatly fear how educated girls can challenge the narratives propagated by their leaders, such as the restrictions of rights and access to education. Educated women can become advocates of change, empowering others in their communities to stand up against terrorist groups. Kristof writes of horrific attacks on girls and women who seek out education in their home countries. Acid attacks, shootings, and bombings of all girls’ schools are listed as some extremist attacks on their fight against women and their right to knowledge.

The article emphasizes the danger for women because of their ability to create a more inclusive and resilient future for their communities. There is a significant need to educate young girls, not only because it is their human right,
but also to combat terrorism, extremism, and inhumane ideologies.

Malala Yousafzai is a renowned advocate for girls’ education. Ever since she was born, she has had a passion for learning and education instilled by her father, who ran a school in their village in the Swat Valley in Pakistan (Yousafzai, 2014). In 2007, the Taliban took control of their region, and their enmity toward girls receiving an education was a linchpin to their terror campaign. They
banned girls from attending school and implemented strict restrictions on cultural activities. Suicide attacks and bombings were rampant, and by the end of 2008, they had destroyed some 400 schools.

At the age of 11, with the support of her father, Malala courageously stood up against the Taliban’s oppressive policies and spoke out for her right to education. She blogged for the BBC anonymously. However, her activism and determination to bring change gained recognition, resulting in nominations, awards, and awareness. On October 9, 2012, when Malala was 15, she was targeted by the Taliban and was shot in the head while on a bus. Miraculously, she survived the attack and was airlifted for treatment. After multiple surgeries and rehabilitation, she recovered remarkably well, and after about a year of regular treatments and therapy, Malala resumed her education in the UK.

Malala’s assassination attempt launched her into international prominence, where she received widespread support and admiration. She published her first book, an autobiography titled, “I Am Malala: The Girl Who Stood Up for Education and Was Shot by the Taliban.” She received countless awards and recognitions for her advocacy and became the youngest Nobel Peace Prize laureate in 2014. Malala and her father created the Malala Fund, which supports education projects in multiple countries and collaborates with
local partners to promote quality education for girls worldwide. Malala uses her platform to continuously advocate for education, emphasizing its importance in achieving social and economic progress. She amplifies the voices of marginalized children for their right to education to become advocates for positive change in their communities (Yousafzai, 2014).

It can be concluded from the aforementioned passages that there has been a historical preference for solely educating men. Therefore, the history of the first single-gendered school is almost impossible to ascertain. For this portion, I will focus on the history of women’s education and topics covered in the 19th and 20th centuries.

In America during the early 19th century, education for women was aimed at providing them with practical knowledge and insight to help them raise their children to be virtuous and responsible individuals.
In 1831, “The Mother’s Book” by Mrs. Child was published, and it served as a manual for mothers on how to raise their children and fulfill their parental roles. The book’s overall message is to emphasize the importance of a mother’s role in shaping and nurturing her children, therefore promoting the idea that women have a significant impact on the character and well-being of their children. The
book first seeks to acknowledge American mothers because the children they raise will inevitably be members of American society. Consequently, thanks to their upbringing, they hope they will be strong, educated, responsible members (Child, 1831):

TO

AMERICAN MOTHERS,

ON

WHOSE INTELLIGENCE AND DISCRETION

THE

SAFETY AND PROSPERITY

OF OUR

REPUBLIC SO MUCH DEPEND,

This Volume IS

RESPECTFULLY INSCRIBED.

It emphasizes the importance of a mother’s role as a teacher and guide to her children regarding formal education and everyday life lessons. The book encourages mothers to educate themselves and their children to be influential members of society.

Throughout the 19th century, grammar schools and universities in Massachusetts began opening their doors to girls, with conditions. Some grammar schools only permitted girls from April to October, while some schools
questioned the co-education of the genders to the head of boards (Cheney, 1894). There were significant differences in the co-education practices across towns; however, some institutions made notable adjustments in their accommodations of women in their curriculums. Mt. Holyoke Seminary, located in western Massachusetts, was initially established to train women for missionary work. With the demands of the times, Mt. Holyoke adapted and evolved into a college with female graduates accomplished in various fields, trades, and studies (Cheney, 1894).

The next significant step for women in education was the establishment of normal schools. Normal schools are defined as “...where children on both the primary and secondary levels were taught, and where their teachers, and the instructors of those teachers, learned together in the same building” (Paterson, 2021).
These schools became implemented after Horace Mann, an American education reformer, advocated for female teachers, believing they were superior to males in instructing young children. He reported his ideas and beliefs to the Massachusetts Legislature in 1838. He was allocated private funds to train young women as teachers exclusively, showcasing Mann’s belief in the effectiveness of women in advancing society and civilization (Cheney, 1894).

The normal schools had a significant impact on Massachusetts’ schools,
and in 1858, 76 percent of teachers in public schools were women. Women made up 83 to 95 percent of the enrollment in the normal schools over the following years. Many of these educated women attended colleges and universities that permitted their attendance. The female alumni of these institutions formed an association nationwide to promote education's importance. It contained "...1,458 members, of whom 175 have received master’s or doctor’s degrees, and 31 fellowships; 55 of the members are married women" (Cheney, 1894). These women became pioneers and role models for future generations.

In the early 20th century, women experienced increased opportunities, visibility, and rights. World War I marked a significant shift in society, as many women entered the workforce instead of their previous primary focuses of being mothers, wives, and possibly teachers and students. They advocated for workplace equity, fair wages, and the right to vote, achieved in 1920 (Lewis, 2020).

The Great Depression, which occurred in the 1930s, incredibly stunted women’s trajectory for equality. It was the most significant economic disaster in the history of the United States. The impact of the stock market crash caused many people to lose their savings as banks collapsed, industries failed, and
businesses were forced to shut down (McCutcheon, 2022). Unemployment, homelessness, and insufficient institutions to supplement assistance created immense hardships. Women were responsible for caring for their families without employment or assistance, as the government’s economic recovery efforts were primarily designated for men.

World War II had a significant impact on women. High school and college completion rates plummeted as young women were forced to fill roles previously occupied by men while they were away fighting the war (Jaworski, 2014).

Figure 6
High School and College Graduation Rates, 1910-1990

(Jaworski, "You're in the Army Now: The Impact of World War I on Women’s Education, Work, and Family" 2014)
Women learned new skills, and when men returned from war, some women chose to stay and pursue their new skill assets. Many women found that their pay wage was significantly lower than a man’s, and while that could be explained partially by their lack of education and training in their new roles, which caused women to advocate again for change. Women started pursuing higher education to better themselves and society and for higher wages.

After the end of WWII, the feminist movement in the United States was strongly influenced by the Civil Rights Movement. Men and women demanded
equal rights in education, highlighting the need for women to be equally and inclusively educated, as well as across all races and ethnicities. These ideologies and demands rattled society, as it was still deeply ingrained in societal norms for women to be caretakers, homemakers, and wives. It posed a significant obstacle in the fight for gender equality, particularly in higher education and the workplace. (Dartmouth, 2016). Advocates for the feminist movement and the Civil Rights Movement tirelessly protested against the notion of homemaking as the woman’s primary role, which gradually faded away. Teaching, a familiar and safe profession in the eyes of men, served as a gateway for women to ease into other fields, as it helped reshape societal perceptions of women in professional careers. These significant advances enabled women to “... play central roles in education - as teachers and as learners, in formal and informal education settings” (Woyshner & Tai, 1997, para. 1).
In 1980, home economics classes were still incorporated into curriculums. Students in these classes were primarily women, and they learned practical skills like cooking and setting a table (Scattergood, 2010). They learned many household life skills, like sewing, mending, cleaning, and child-raising. Not long after the feminist movements and women pushed back on society’s ideologies of what their destined futures held, these classes dissolved. Today, some schools still incorporate some iterations of home economics, where they teach all students, not just girls, basic life skills that they can apply to their adult lives.
A provocative study states that progress made by women in gender equity has slowed down. The research analysis reveals that there has been a progressive slowdown in gender equity in the United States since the 1990s (Devitt, 2020). This thesis has exhibited and explained women’s strides in education, pay, and entering male-dominated occupations. However, this study states that advancement has stalled in recent decades. Women’s employment rates increased until 2000 but declined during the Great Recession, recovering years later to 73% in 2018. Men’s median earnings fluctuated since the mid-1990s, while women’s earnings have remained lower. The ratio of women’s to men’s earnings increased slowly after the 1980s, with women earning 83% of men’s earnings in 2018 (Devitt, 2020). Although more women earn their degrees, some occupational segregations remain, with some fields still predominantly male or female. Finally, the study suggests that further progress requires substantial institutional and cultural changes, including and not limited to government-funded childcare and employer policies that reduce gender bias and support work-life balance (Devitt, 2020).
The COVID-19 pandemic has negatively impacted the health and well-being of girls, and there has been a greater risk that some may not return to school. School closures due to the pandemic increased drop-out rates as teenage girls faced increased household responsibilities, reducing their study time. Parents of these girls, potentially lacking understanding of the importance of education, could keep them home even after the school reopens as they cannot give up their child’s extra assistance. Some girls might have taken on full responsibility for families, as the primary caregivers are absent due to
COVID-19-related reasons (Schrader, 2022).

Research has also indicated that violence against girls and women has increased during the COVID-19 pandemic. Similar patterns were observed during the 2014-2016 Ebola outbreak in West Africa. There was a proportional link between school closures and higher rates of sexual violence, coercion, exploitation, and teenage pregnancies. In some cases, girls who had become pregnant were banned from returning to school (Schrader, 2022). Consequently, the COVID-19 pandemic may disproportionately affect girls and women in education.

As previously noted, inequalities worldwide still exist today in the accessibility and equality to education for women. Whether it is prevented or restricted by governments or non-governmental organizations, in some cases, access to different levels of education is inaccessible due to cost.

Parents in the United States can send their children to a public or private gender inclusive school. In addition, single-gender schools are available but have primarily only been offered in private institutions. With monetary resources being one of the main contributing factors to the limitation of students to attend, it has been explored whether public schools should provide choices for parents and students opportunities for single-gender education within the
gender inclusive walls of the public institutions. These opportunities would lower the disparity of under-resourced students' lack of access to single-gender education.

Cable and Spradlin's (2008) article, Single-Sex Education in the 21st Century, covers many relevant topics in single-gender education with supported examples. One example of the benefits of this style of education is the results found by the Young Women’s Leadership School in East Harlem (Cable & Spradlin, 2008). In 1996, this leadership school was created as an experiment to
provide a single-gender public education to inner-city girls. The results of this experiment were so incredibly positive because of the consistent 100 percent graduation rate that it caught the attention of Hillary Clinton. She later helped pass an amendment to the No Child Left Behind Act, which allowed any public school to create single-gender programs. This example implies that if young women had access to an all-female educational platform, they would strive for success without comparison or hindrances potentially stemming from their male counterparts.

Accessibility is not the only issue that affects single-gender education. Supporters and opposers of single-gender education argue about differences between boys and girls, men and women in cognitive and biological differences. Men and women have been segregated and categorized by societal perceptions and by what is to be believed by science. Those who criticize the separation of gender fear that separating the genders can cause feelings of inferiority, which is the opposite of the mission of single-gender educational institutions. They state that segregating the genders based on their biological differences can be compared to the segregation of race (Sari, 2017).

Mael et al. (2005) aim to review the research on the impact of single-gender and coeducational schooling on cognitive and noncognitive
outcomes in the article Single-Sex Versus Coeducational Schooling: A Systematic Review. The multiple authors review various studies investigating the effects of single-gender schooling on academic achievement, attitude toward learning, and social outcomes. The authors found mixed results in the studies they reviewed. Some studies suggest that educating separately removes a certain level of distraction and pressure, while some suggest that segregating negatively affects sociability and workability between genders. One of the studies suggested that single-gender schooling improves academic achievement for both genders, stating studies that have found that boys in single-gender schools perform better on standardized tests in math and science, while girls in single-gender schools perform better on verbal and writing tests.

Furthermore, they found that single-gender schools are more apt to encourage full participation in the classroom, gender-inclusive activities, and sports.

The author’s review notes that the research on this topic is far from conclusive, and many studies have found no significant differences between single-gender and coeducational schooling. Additionally, some studies suggest that single-gender schooling may reinforce gender stereotypes and limit opportunities for socialization and collaboration between genders. The authors suggest that the decision to implement single-gender schooling should be
based on careful consideration of the potential benefits and drawbacks and should consider the specific needs and characteristics of the student population. They emphasize that the ultimate goal of education is to create inclusive and equitable learning environments that address the needs of all students regardless of gender.

In agreement, Hyde and Linn (2006) summarize research on Gender Similarities in Mathematics and Science that shows that despite some differences in how girls and boys approach math and science, there are no significant gender differences in overall achievement in these subjects. They argue that gender differences in learning may be exaggerated and that social and cultural factors play a more prominent role in shaping educational outcomes.

On the contrary, Leonard Sax, the founder and executive director of the National Association for Single-Sex Public Education (NASSPE), documents his findings on the differences in boys' and girls' developmental ranges that can affect co-education (Cable & Spradlin, 2008):
1. The brain develops differently. Researchers at Virginia Tech used electrophysiological imaging of the brain to examine brain development in 508 children (224 girls and 284 boys) ranging from two months to 16 years of age. They found that areas in the brain involved in language and fine motor skills developed four years earlier in girls than in boys, and areas in the brain involved in geometry and spatial reasoning mature four years earlier in boys than in girls.

2. The brain is wired differently. Emotion and language are processed in the same area of the brain for girls, so it is easier for most girls to talk about their emotions, but for boys, emotions and language are processed in separate areas of the brain. It is difficult for boys to give an answer to: “Tell me how you feel.”

3. Girls have a more sensitive sense of hearing than boys do. The typical 12-year-old girl has a sense of hearing seven times more acute than a young boy. Girls are distracted by noise at sound levels 10 times lower than boys.

4. Females and males respond to stress differently — not just in our species, but in every mammal scientists have studied. Stress enhances learning in males. The same stress impairs learning in females.

These findings are significant because it establishes proposed scientific research on different traits between males and females, which can interrupt or impact their learning together or separately.

Single-gender education advocates believe co-education has more substantial negative impacts on personal and social development. They believe that in co-education, girls are more apprehensive in the classroom in fear of
embarrassing themselves, which lowers their self-confidence. Some also believe that co-education propagates the heteronormal standards of gender roles. Mediha Sari states the difference “gender” meaning “...the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate... while “sex” refers to the biological and physiological characteristics that define men and women” (Sari, 2017). This means that while both men and women attend school together, they quickly adapt and fit into “molds” of what they think their roles in their sex and, or gender, “require” of them. While at a single-gender institution, boys and girls can develop and express themselves without fear and in ways not influenced by heteronormative standards.

Another fear of men and women attending single-gender institutions for prolonged periods can cloud their idea of what “...real life or life in the workplace” (Cable & Spradlin, 2008). Theoretically, because men and women were separated for an extended amount of time, they might not know how to work together cohesively, with an extreme side effect being sexism. Eagly and Johannessen-Schmidt (2004) discuss the potential consequences of gender segregation, arguing that when men and women are separated for long periods, they may develop different social norms, values, and communication
styles. This can lead to challenges in working together cohesively and the potential for sexism and other forms of gender-based discrimination. These authors suggest that it is essential that men and women have opportunities to interact and work together in order to develop more egalitarian attitudes and behaviors.

I choose to respond to these opposing beliefs to illustrate significantly the opinions of supporters and critics of single-gender and co-educational systems. Reflecting and responding to different perspectives while doing this research is crucial because you can become more informed about the information you intend to document.

The next chapter in this thesis is a series of personal narratives and perspectives from teachers and former students in single-gendered and co-educational spaces. I hope that including these stories brings perspective and appreciation of different experiences in educational spaces.
I am going to approach these questions from a single gender point of view, but I want to express that we do have male transgendered and non binary students, so I am factoring that into my answer. So depending on the class, sometimes the spaces are not single gender spaces.

**How many years have you been an educator in a single gender space?**
28 years

**What are 3-5 benefits you see for girls that are educated in single gender spaces?**
1. Freedom to be themselves, both verbally, in their physical actions, and in their attire.
2. They know most of their peers running for office within the school and all of their peers on the court/field/pool will be female which is important as it illustrates that people they look up to, in elected and competitive positions will be female themselves.
3. The curriculum and special speakers/events etc., are geared to celebrate, promote and support girls and women.
4. When power tools, computers, and tech equipment are introduced they know that all the girls in the classroom will be using them.

**What are key differences you’ve noticed while teaching in co-ed and single gender spaces?**

I taught at a few co-ed schools for a year before I was hired, so I will have to base my answer off of that short time. I have also taught a more recent co-ed camp and I will work from that experience as well. The main differences that I have observed are that the girls do not hold themselves back in a single gendered school. In a co-ed school girls do not raise their hands half as much as their male peers. Also, as I mentioned before, when power tools, computers, and tech equipment are introduced they know that all the girls in the classroom will be using them. The girls will not have to wait; they can jump right in and use them right away. Or they are allowed the time to observe, without missing a chance, and then when they are ready, jump in and utilize the tools/devices in a comfortable setting, with no pressure, at their own pace.

**Do you see a difference in gender non-conforming students’ engagement while enrolled in a single gender school?**

In 2023, we currently have male transgendered students as well as non-binary students attending our school. We also accept female transgendered students. This is supported by the school and the student body. So no, I do not see any difference in transgendered/non binary student engagement. It is a welcome part of our community.
Years of Experience

I have worked for 25 years as a full-time middle and upper school Latin teacher at Lincoln School in Providence Rhode Island. Prior to my current position I taught for a semester at the co-educational public high school in Northampton, Massachusetts. Before that I had worked as a teaching assistant at the college level. I have never taught in an exclusively all-boys educational environment.

Benefits of the All-Girls Educational Environment

- With the lead boy (see below) not in the room, the floor is open for each and every girl to express her thoughts in the classroom space.
- Girls in the single-sex environment are liberated from the pressure introduced by the critical gaze of boys their own age. Girls gain greater control over the pace of their journey into adulthood in a single-sex environment. I believe that greater control in this area of their growth journey generates significant mental health benefits for girls.
- Any sort of competition — athletic or academic — is inherently more appealing for female students in a single-sex environment than it would be in a co-ed environment. Competitive activities, games, become more useful tools for the teacher or gym coach. This positive dynamic leads to greater engagement by female students in school overall.
- The all-girls educational setting creates lifelong friendships among students. These relationships provide invaluable emotional support throughout the lives of students. Are the friendships formed in the co-educational setting as numerous and as profound as the ones created in the all-girl setting?

Differences between All-Girls & Co-Ed

It has been many years since I have taught where boys are present. Here is what I can recollect about teaching a mixed group of boys and girls: In the
co-educational environment there is frequently a figure who I would identify as the boy leader. Success in the co-educational classroom depends in part on the way the boy leader engages with the teacher and with class material. If the teacher can gain the respect and good will of the lead boy figure, many other students, both male & female, are likely to follow. It should also be added that the boy leader effect can result in great difficulty for a teacher if the lead boy happens to be oppositional or otherwise determined to undermine the teacher’s efforts in the classroom. However I should add that specific students with particular emotional or academic needs will always require abundant one-on-one interaction with their teacher in order to achieve success.

This leader effect appears to be greatly reduced in an all-girls environment. The effect is visible in the all-girls middle school environment, but it recedes into the background in high school. In instances in which a particular girl student stands out for her academic achievement, that girl almost always wants her achievement kept private. Female students will object to their teacher if their stellar academic performance is regularly put on display for their peers to see. Girls believe that their relations with their female peers are threatened by excessive academic prominence. Boys experience no such concern with respect to their relations with their male peer group.

**Differences between Gender-nonconforming Students & General Population**

Gender non-conforming students are much more common in today's educational environment than they were when I began teaching. Because gender non-conforming students are so numerous now, there are many ways in which these students present themselves in the all-girls environment.

Students who identify as gay or lesbian in middle and upper school are numerous in today’s all-girls educational environment. These students are indistinguishable from students who do not identify as gay, and their success or difficulty in school appears to bear little relation to their current gender identification.
For some trans-identifying students, their gender identity journey has very little effect on their day-to-day engagement with school. Students in this category can be high-achievers at school.

For a subset of trans-identifying students, their gender expression appears to be a manifestation of some other psycho-emotional challenge that may be only tangentially connected to the student’s feelings about gender identity. These students sometimes struggle to feel comfortable in school and tend to perform poorly academically.
Emma Stenberg
English Department Chair

Image 1: I keep this poem by Mary Oliver, printed in miniature, taped to the corner of my desk.

Image 2: This is a segment of a place where I’ve hung up mementos, and what you see here is a card that students gave me when my Dad passed away in 2019; a few thank-you cards from individual students; a photo of my dog; a zine that I made during a workshop my first year at Lincoln; a promotional slip for a student’s 2020 play; part of a class picture; and a sketch “of me” that a student did last year.

How many years have you been an educator in a single gender space?
I have taught at a school for girls, with predominantly girl/young women students, since 2015, so this is my eighth year. Before that, I taught at an all-gender school for five years. At this point, I’ve taught for the majority of my career at a single-gender school.
What are 3-5 benefits you see for girls that are educated in single gender spaces?

1. Girls (and trans and gender-nonconforming youth) see themselves everywhere, including in positions of leadership.
2. Girls later join all-gender spaces without having internalized the narrative that boys and men should necessarily take up more space or occupy leadership roles, and that they themselves necessarily shouldn’t, because of their genders.
3. Girls (and their teachers) disrupt ideas that gender is a set of essential traits/inclinations; instead, they can come to see it as a constructed, flexible, evolving thing.

What are key differences you’ve noticed while teaching in co-ed and single gender spaces?

I have noticed that students in this single-gender space are “game.” They don’t generally posture or act like it’s “not cool” to want to learn. There also seems to be more organic instances of friendship/mentorship across grade levels, and less of a “hazing” mentality than at all-gender schools.

Do you see a difference in gender non-conforming students’ engagement while enrolled in a single gender school?

I do think this is where we need to get clearer on our mission (schools and educators in general, as well as my specific school). Language is a big part of this. We need to change our thinking to change our language, and also change our language to change our thinking – these things are cyclical. I can remember when it was routine to refer to a group of students at Lincoln as “ladies,” and then “girls,” and now I wouldn’t dream of doing that. I notice it most at admissions events – when folks present about the school, they refer to girls/daughters, terms which (increasingly) don’t represent all of our students. I don’t think there’s an easy answer here – our mission includes being a school for girls.
For 15 years, I attended a single sex educational school. I followed this by attending nursing school for 6 years, which was a field dominated by women, as well. Being educated in an all-girls school shaped me as an individual growing up because I never once compared my ability to the ability of a man. I learned from an early age that women could do anything that men could do, whether that was a naive thought or not, to this day I still believe women are more than capable of achieving anything they put their minds to. As an adult, I found that people often comment that I am a very vocal leader and able to collaborate well with others. I do not rely on my male counterparts, nor do I ever not rise up to a challenge. I credit this to my time at a single sex school. Working in the pandemic as a COVID ICU nurse, women were the ones saving lives daily. It was the primarily female nurses who were touching the hearts and acting in every dire circumstance for the patient. An act of true heroism and bravery was what I witnessed day after day for three years of the pandemic. As May 11th 2023 approaches, signaling the end of the national pandemic, and the start of a new
era in healthcare, I can't help but think that we wouldn't have survived without the brave women who put their lives and their families at risk daily by showing up to the bedside for the sickest patients in America. Nurses, majority of whom were women, were the soldiers of this pandemic and to them I salute.
Looking inward, I believe being educated and spending my formative years at an all girls school shaped me into a driven, loyal, and kind individual. Spending 12 years in this environment helped develop my core values which drives my decision making, how I go about life, and how I ended up in my current professional role.

The all girls school I attended provided comfort and safety while also challenging and pushing me to figure out who I was and preparing me for the next stage of life. All twelve years at this school was definitely not perfect or smooth sailing, but I will forever be grateful for everything the school taught me and encouraged me to be. I truly believe in the power of an all girls education; however, I do acknowledge it’s not the best decision for everyone but for the people who need it or want it, I think it can give them the ability to flourish and learn so much.

Most importantly it showed me the importance of supporting and lifting other women up and that there’s enough room in this world for all women to succeed (in whatever way success looks like for each person). This school taught me how important education is and how it can come in so many different forms and you should never stop learning as you go through life.
Every Emotion I Felt:

- Scared
- Happy
- Sad
- Angry
- Excited
- Worried
- Surprised
- Silly
- Frustrated

Single gender education...a place I know very well being encased within that realm for 10 years on my educational path. Throughout my time at the Lincoln School for Girls I not only made lifelong friends but learned more about how my education differed from someone who attended school in a “traditional” educational environment. One thing I appreciated about my environment was that there was less pressure by male classmates and the absence of feeling sexualized or pressured into acting more masculine around them. One fault is that the excess estrogen caused more “pretty” arguments, drama, or gossip in the classroom and around the school. One thing I loved about my environment was that I was able to learn within smaller class sizes while having a closer relationship with my teachers and peers. Lincoln School was also very open to the new wave of gender inclusivity, even though it is primarily female education, they provided security for the LGBTQ community. Even though I may not have been the best student, or not always in uniform (which by the way made mornings much easier), I think that my education shaped me to follow on a successful path throughout college and now my professional career.

XOXO,

Helary Gladstone
Having been educated at an all-girls school my entire life, I didn’t experience co-education until I was a (mostly) developed adult. It’s a fact that regardless of the style of education one receives, the gender-norms, customs, and occasional blatant sexism of society are going to bleed into one’s sense of self and development. Having a single-sex education provided me with a makeshift safe haven to lean into throughout adolescence, where I thankfully had no choice but to focus on testing the boundaries of what women are capable of, rather than internalizing what they are barred from or limited to. Outside of the academic sphere, I’m grateful for the friendships I had, and for the fact that (being heterosexual) I was given ample time and space to nurture those platonic connections through life, while things like crushes existed only outside the of my education and development from 7:45AM-5:30PM. I wouldn’t trade my experience for the world, and my world is as complete as it could be right now thanks to my single-sex education.
RESEARCH FINDINGS

Based on the literary review section of this thesis, the historical progression of women’s education has played a vital role in advancing gender equality and empowering women globally. It can be determined that gender disparity in education negatively affects economic development and social progress, hindering a country’s overall advancement. Investing in education for women yields significant social and economic benefits (UNICEF, 2015).

Girls from marginalized communities face multiple challenges in accessing quality education, including and not limited to socioeconomic barriers, cultural norms, and limited infrastructure. Efforts to promote and improve access to education in regions affected by conflict and extremism have shown promising results, leading to increased enrollment and retention rates. Programs that address accessibility and other barriers to education, such as providing scholarships and improvements to school infrastructure, have been effective in promoting education for girls (Kristof, 2014).

The narrative portion of this thesis brings insight into the benefits of single-gendered experiences in education. Responders reflected on the education and community they were once a part of. They spoke of how their single-gender educational experience cultivated their core values and became
driven and kind individuals. They learned by example to support women and others and spoke of their community being a haven from societal norms.

Educators responded with their narratives of exercising curricula that support girls’ ambitions and dreams. They observed that their female students have a sense of freedom in the classroom and do not hold any reservations about speaking and acting.

In addition to experiences in single-gendered educational spaces, the narratives enlighten specific solutions to gender non-conformity at historically single-gender institutions. I conducted a constructive analysis of a single-gender school’s website located in New England to explore what a particular institution is facing in regards to historically labeling itself as an all-girls institution.

What does a single-gender school mean in a time of gender expansiveness? Who determines appropriate measures and exclusions to the admission of individuals not assigned females at birth to an all-girl school? A private, single-gender school’s website has a published page on its website outlining its gender admission guidelines, juxtaposed to a page labeled “All-Girls Advantage.” It reads as follows (Gender Admission Guidelines, 2016):
Lincoln will consider applications from students who identify as female, regardless of their assigned sex at birth, for Grades K–12. Lincoln accepts applications from those who were assigned female at birth, identify as non-binary, intersex, or gender non-conforming and who feel they belong in our community of girls and women. Lincoln accepts all genders for our early childhood infant through pre-kindergarten program.

Should a current student begin to identify as male, non-binary, intersex, or gender nonconforming, the student will continue to have a home at Lincoln School. Lincoln will also work in partnership with the student and their family to provide support throughout the next steps of their academic journey.

These guidelines, consistent with the National Coalition of Girls Schools (NCGS) and NCGS member schools, apply to all Lincoln students and applicants.

Lincoln values the safety and respect of all members of our community, no matter their gender identity. Lincoln will continue to be an inclusive space where our students grow academically and personally, building characteristics and traits that will serve them throughout life. We expect all students who choose Lincoln will be supportive of the School’s history, mission, and advocacy for girls’ education and women’s advancement.

The response and guidelines posted by the school display their encouragement and support of non-conforming applicants and current students to feel at home and welcome within their institution. It is essential, concluded from history, that women and those who identify as such feel welcome in educational spaces to further progress their academic abilities and for the advancement of society.
CONCLUSION

Ultimately, this body of work aims to bring awareness to the ongoing history of women in education. Women’s education has been crucial in advancing gender equality and empowering women globally (Yousafzai, 2014). The historical progression of women’s access to education and in addressing gender disparity in education has had a profound impact on societal and economic progress and development.

Informed by the communications in the narrative pieces, single-gender educational experiences are demonstrated to affect students by fostering core values and empowering individuals positively. Students in these institutions can feel a sense of freedom, support, and confidence, which can contribute to their academic and personal development and success.

There are specific challenges and particular considerations when it comes to gender non-conformity in historically single-gender institutions. This thesis raises questions about the meaning and relevance of single-gender schools in a time of gender expansiveness. In addition, it addresses the need to discuss admission guidelines and inclusivity issues for individuals who were not assigned females at birth in all-girl schools. The Lincoln School’s website provides insight into an institution’s approach to admission guidelines. It highlights the need for clear
definitions and measures regarding the admission, and ongoing enrollment, of individuals who do not fit social measures of gender.

These conclusions suggest the critical provocations of ongoing discussions and considerations regarding gender disparities and inclusivity in educational settings and the need for inclusive admission policies that align with evolving understandings of gender identity and expression.
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