# A Liberal Feminist Critique of Single-Sex Schools

Zaldy D. Dueñas III De La Salle University zaldy.duenas@dlsu.edu.ph

#### **Abstract**

This paper examines the debates between single-sex education and coeducation schooling, focusing on gender equity. Some feminists argue that gender equity can be achieved through single-sex education, while others advocate for coeducation. The former is said to provide more involvement and opportunities to female students. whereas the latter is seen as a more congenial environment and more tolerant of differences. In line with this, this paper evaluates the importance and relevance of a school's or learning environment's sex composition in light of liberal feminism, which asserts that women and men have equal rationality and that women can similarly contribute to society if provided the same education. That said, it finds that existing studies on the topic show mixed and inconsistent results and that both single-sex and mixed-sex schooling present advantages and disadvantages to women because of gender equity, academic outcomes, and responsiveness to learning needs. Meanwhile, despite the apparent dominance of mixed-sex schooling in the current educational landscape, single-sex schools indicate accessibility and availability of school alternatives for learners.

**Keywords:** Single-Sex Schools, Coeducation Schools, Mixed-Sex Schools, Liberal Feminism, Gender Equity in Education

© 2024 Zaldy D. Dueñas III ISSN: 2546-1885

## Introduction

The debate on single-sex vs. coeducation schooling generally centers on discussing gender equity in education. This is in view of the existing differences in the educational careers of women and men despite having the same educational opportunities and the presence of various efforts to promote gender fairness in education.<sup>2</sup> Coeducation or mixed-sex schooling is a form of instruction where males and females are taught together. In contrast, single-sex schooling refers to instruction where the two sexes are taught separately, either at a school or classroom level. Historically, in primary and secondary education, single-sex schooling has been the norm and the dominant tradition in many nations worldwide.3 However, this landscape is no longer the case as coeducation gradually became more prevalent when mass or public education began to spread.4 For example, in England during the mid-twentieth century, large comprehensive schools with coeducational structures replaced the reign of all-boys/men and allgirls/women schools.<sup>5</sup> Hence, coeducation may be considered relatively new compared to the long history of single-sex schools in Western educational contexts.<sup>6</sup> Though outnumbered nowadays, single-sex schooling remains among several public, private, and religious educational institutions, even if its presence varies worldwide. Case in point, in countries like Egypt and Saudi Arabia, there is still a high presence of single-sex schools due to sociocultural, economic, and political factors.7 Meanwhile, a rise in single-sex

<sup>1</sup> Sum Kwing Cheung, "Coeducation and Single-sex Schooling" in *International Encyclopedia of the Social & Behavioral Sciences* 2<sup>nd</sup> Edition, Volume 3, edited by J. D. Wright (Amsterdam: Elsevier, 2015), 926.

<sup>&</sup>lt;sup>2</sup> Marlene Kollmayer, Barbara Schober and Christiane Spiel, "Gender Stereotypes in Education: Development, Consequences, and Interventions," *European Journal of Developmental Psychology* 15, no. 4 (2018), 361,

<sup>&</sup>lt;sup>3</sup> Daniel B. Robinson, Jennifer Mitton, Greg Hadley, and Meagan Kettley, "Single-sex Education in the 21st Century: A 20-year Scoping Review of the Literature," *Teaching and Teacher Education* 106, no. 103462 (2021), 2,

 $<sup>^4</sup>$  Kelly E. Cable and Terry E. Spradlin, "Single-sex Education in the  $21^{\rm st}$  Century,"  $\it Education Policy Brief 6, no. 9 (Fall 2008), 2.$ 

<sup>&</sup>lt;sup>5</sup> Cheung, "Coeducation and Single-sex Schooling," 927.

<sup>&</sup>lt;sup>6</sup> Robinson et al., "Single-sex Education in the 21st Century," 2.

<sup>&</sup>lt;sup>7</sup> Cheung, "Coeducation and Single-sex Schooling," 926.

schooling is seen in the United States as it is now permitted in public schools.8

This shift or trend to a mixed-sex educational setting was not spared from controversies and discussions. While some feminists view only be gender equality may achieved through implementation of coeducation schooling,9 defenders of single-sex schooling believe that this form of education fails to address the specific educational needs of both boys/men and girls/women. For instance, Christian Dustmann, Hyejin Ku, and Do Wo Kwok show, in their study on academic high schools in Seoul, South Korea, that pupils in single-sex schools outperform their counterparts in coed schools due to single-sex peers in school and classroom. 10 Other feminists suggest that coeducation cannot provide an equitable education, particularly to girls. 11 That is, girls are most often disadvantaged in coeducation schools because they receive less attention from their teachers and are less involved in leadership roles, sports, and mathematics and sciences courses.12 One study commissioned by the National Coalition of Girls' Schools (NCGS) reports that single-sex education appears to produce better outcomes for female students in terms of co-curricular and political participation and in view of their academic engagements, confidence, and aspirations in subject areas that historically favored men.<sup>13</sup> With this perceived gender bias in coed schools, some feminists argue that single-sex schooling can achieve gender equity in education.14

These ongoing debates echo the notion of liberal feminists on the importance of education. In view of liberal feminism, education is

<sup>&</sup>lt;sup>8</sup> Amy Roberson Hayes, Erin E. Pahlke, and Rebecca S. Bigler, "The Efficacy of Single-sex Education: Testing for Selection and Peer Quality Effects," *Sex Roles* 65 (November 2011): 693.

<sup>&</sup>lt;sup>9</sup> Cheung, "Coeducation and Single-sex Schooling," 927.

 $<sup>^{10}</sup>$  Christian Dustmann, Hyein Ku, and Do Won Kwak, "Why are Single-Sex Schools Successful?" Labour Economics 54 (2018), 94.

<sup>&</sup>lt;sup>11</sup> Cable and Spradlin, "Single-sex Education in the 21st Century," 4.

<sup>&</sup>lt;sup>12</sup> Cheung, "Coeducation and Single-sex Schooling," 927.

<sup>&</sup>lt;sup>13</sup> Linda J. Sax et al., Women Graduates of Single-Sex and Coeducation High Schools: Differences in their Characteristics and the Transition to College (Los Angeles: The Sudikoff Family Institute for Education & New Media UCLA Graduate School of Education & Information Studies, 2009), 11.

<sup>&</sup>lt;sup>14</sup> Carole B. Shmurak, *Voices of Hope: Adolescent Girls at Single Sex and Coeducation Schools* (New York: Peter Lang Publishing, Inc., 1998), cited in Cheung, "Coeducation and Single-sex Schooling," 927.

the key for women to have the necessary tools to join the public sphere and become full citizens. 15 Education is a force that can free women from the constraints of their private and personal spheres. It contends that both sexes have the same rationality and that a woman can be a man's equal through education. This paper evaluates the importance and relevance of a school's or learning environment's sex composition. In particular, it asks how single-sex schools advance liberal feminism's ideals in view of education. It hypothesizes that single-sex education, compared to coeducation, presents more advantages to women. It argues that single-sex schools provide learning environments that is not sexist or gender-biased, produce better academic outcomes, and are more adaptive to the learning needs of women. To verify this claim, the advantages and disadvantages of single-sex and coeducation schools are discussed and reviewed vis-à-vis liberal feminist's notions on education. Through this, this paper aims to contribute to the ongoing debates on women and education by exploring a learning setup's sex composition concerning liberal feminist concepts.

# Single-Sex vs. Coeducation (Mixed-Sex) Schooling

Single-sex schools were the prevalent system of education until the expansion of public education with a coeducational structure. Preparatory schools in Europe and America were single-sex schools but coeducational common schools were more economical. With this development, single-sex schools almost solely remained in the private and religious-affiliated sectors. For religious schools like Catholic schools, the adherence to the tradition of single-sex education was supported by Pope Pius XI, who, in his 1929 encyclical "Christian Education of Youth," stated that the method of coeducation is false and harmful to Christian education. For him, the differences between males and females need to be maintained; thus,

 $<sup>^{15}</sup>$  Kathy Rudy, "Liberal Theory and Feminist Politics," Women & Politics 20, no. 2 (1999), 37.

<sup>&</sup>lt;sup>16</sup> Cheung, "Coeducation and Single-sex Schooling," 926.

<sup>&</sup>lt;sup>17</sup> Cable and Spradlin, "Single-sex Education in the 21st Century," 2.

<sup>&</sup>lt;sup>18</sup> Gerald W. Bracey, *Separate but Superior? A Review of Issues and Data Bearing on Single-Sex Education* (Tempe, Arizona: Educational Policy Research Unit (EPRU), Arizona State University, 2006), 1. https://nepc.colorado.edu/publication/separate-but-superior-a-review-issues-and-data-bearing-single-sex-education.

they need to be separated, particularly in their adolescence, which he believed is the most delicate formation period. However, this may not be the case as there was a tendency to practice coeducation among Catholic schools that were previously exclusive for boys or girls. For example, in the Philippines, all-girls schools like St. Paul University Manila, Sta. Isabel College de Manila and College of the Holy Spirit-Manila (before it closed down) shifted to co-education. Recently, St. Scholastica's College Manila, an all-girls school run by the Benedictine sisters and one of the pioneers of women's studies course in the Philippines, has announced opening all its college and senior high school programs to male students. The same is true for known all-boys schools like La Salle Green Hills, which recently transitioned into coeducation, and Ateneo de Manila's basic education, which announced that it is set to implement gradual coed admission in 2024.

Meanwhile, in the case of the United States, the passage of Title IX legislation in 1972 limited single-sex public schools and classes. Title IX states, "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving federal financial assistance."20 While this was historically intended to safeguard gender equity in athletics, it restricted singlesex public schools and classrooms.<sup>21</sup> Though the case, in 2006, there were amendments in the regulations of Title IX which allowed public schools to legally offer the option of single-sex instruction to improve student learning and to help create a more girl or boy-friendly learning environment.<sup>22</sup> The amendment also ensured that parents who cannot afford single-sex private education could have that alternative for their children. Hence, a dramatic increase in single-sex schools and classrooms in the United States has been seen in recent years.<sup>23</sup> However, it should be noted that despite the rising popularity of single-sex schools in the US, evidence supporting its effectiveness is still lacking. Richard A. Fabes et al. (2018) observe that while US

<sup>&</sup>lt;sup>19</sup> Remedios R. Centeno, "A Comparative Study of the Problems of Third and Fourth Year High School Girls in a Coeducational School and in a School Exclusively for Girls" (Master's thesis, De La Salle University, 1970), 2.

<sup>&</sup>lt;sup>20</sup> Cable and Spradlin, "Single-sex Education in the 21st Century," 2.

<sup>21</sup> Ihid

<sup>&</sup>lt;sup>22</sup> Michael Gurian, Kathy Stevens, and Peggy Daniels. "Single-sex Classrooms are Succeeding." *Educational Horizons* 87, no. 4 (Summer 2009), 235.

<sup>&</sup>lt;sup>23</sup> Hayes, Pahlke, and Bigler, "The Efficacy of Single-sex Education," 693.

public school principals have a positive attitude toward single-sex schooling, it should not be regarded as an immediate solution to educational reform.<sup>24</sup>

While coeducation is currently the norm or the dominant setting, the shift from one form to another continues to raise discourse on the advantages or disadvantages of single-sex education and whether this type of school environment is superior. That is, we ask which of the two school environments enhances learning better, which has detrimental effects on students, and if there is a significant difference in their outcomes.<sup>25</sup> These questions clearly show how the topic remains relevant and worthy of critique.

On the one hand, Daniel B. Robinson et al. (2021) note that given the steady decline and a limited number of single-sex schools in Western countries, there are some teachers and educational researchers who have been promoting revised forms of single-sex education as a pedagogical structure with more measurable benefits to girls and boys.<sup>26</sup> This is besides the fact that there is a long-held prevailing view that suggests that single-sex schools have advantages for girls compared to coeducation schools, which present advantages for boys.<sup>27</sup> This is why much of the literature on single-sex education is related to girls' education.<sup>28</sup>

Amy Roberson Hayes et al. (2011) present two rationales for single-sex education.<sup>29</sup> First, some of its proponents argue that the kind of environment it provides is free from sexist attitudes and behaviors. For instance, in a coeducational classroom, girls must compete for teachers' attention, particularly in male-associated subjects like mathematics and science. In contrast, girls can have increased or more contact with their teachers and higher interest in

<sup>&</sup>lt;sup>24</sup> Richard A. Fabes, et al., "US Principals' Attitudes about and Experiences with Single-Sex Schooling," *Educational Studies* 41, no. 3 (2015), 308.

<sup>25</sup> Ibid., 694.

<sup>&</sup>lt;sup>26</sup> Robinson et al., "Single-sex Education in the 21st Century," 2.

<sup>&</sup>lt;sup>27</sup> Carolyn Jackson and Moray Bisset, "Gender and School Choice: Factors Influencing Parents when Choosing Single-sex or Co-educational Independent Schools for their Children," *Cambridge Journal of Education* 35, no. 2 (June 2005), 208.

<sup>&</sup>lt;sup>28</sup> Robinson et al., "Single-sex Education in the 21st Century," 2.

<sup>&</sup>lt;sup>29</sup> Hayes, Pahlke, and Bigler, "The Efficacy of Single-sex Education," 694.

these courses in a single-sex environment.<sup>30</sup> Thus, the National Association for Single-Sex Public Education (NASSPE) in 2006 found that graduates from girls' high schools are six times more likely to pursue math or science majors and to participate in sports competitions.<sup>31</sup> Countering gender-stereotyped expectations that lead to low student motivation and performance is important. When sex stereotypes are removed, girls are likelier to showcase higher academic goals and career aspirations.<sup>32</sup> Second, single-sex schools adhere to the belief that there are substantial biological differences between sexes. With this recognition, they think that they can provide more effective instruction as their teachers adopt learning strategies and styles that best fit the abilities of their male or female students.<sup>33</sup> Teaching can be tailored to fit the different needs of male and female students for higher achievements.34 Michael Gurian et al. (2009) indicate that "single-sex instruction offers specific gender-friendly opportunities for enhancing learning by directly addressing many of the challenges and stressors in boys' and girls' educational and personal lives."35 Erin Pahlke and Janet S. Hyde (2016) add that proponents of single-sex education argue that academic achievement and performance of children is optimized when instruction considers the differences in how boys and girls learn.<sup>36</sup> This acknowledges that innate differences between the two sexes cannot be neglected.<sup>37</sup>

Other than these two rationales, advocates have identified the development of higher self-esteem and assertiveness of girls in singlesex schools compared to a coeducation setup.<sup>38</sup> Accordingly, sexsegregated classrooms allow girls to be more of themselves, where they are also provided with more leadership opportunities. Amber Hye-Yon Lee and Nicholas Sambanis (2023) state that exposure to an

 $^{34}$  Cable and Spradlin, "Single-sex Education in the  $21^{\text{st}}$  Century," 4.

<sup>30</sup> Roch Chouinard, Carole Vezeau, & Therese Bouffard, "Coeducational or Single-sex School: Does it Make a Difference on High School Girls' Academic Motivation?" Educational Studies 34, no. 2 (May 2008), 131. 01811180.

<sup>&</sup>lt;sup>31</sup> Cable and Spradlin, "Single-sex Education in the 21st Century," 4.

<sup>&</sup>lt;sup>32</sup> Cheung, "Coeducation and Single-sex Schooling," 928.

<sup>33</sup> Ibid., 927.

<sup>&</sup>lt;sup>35</sup> Gurian, Stevens, and Daniels. "Single-sex Classrooms are Succeeding," 236.

<sup>&</sup>lt;sup>36</sup> Pahlke, Erin and Janet S. Hyde, "The Debates Over Single-Sex Schooling," Child Development Perspectives 10, no. 2 (2016), 81-82.

<sup>&</sup>lt;sup>37</sup> Hayes, Pahlke, and Bigler, "The Efficacy of Single-sex Education," 694.

<sup>&</sup>lt;sup>38</sup> Cheung, "Coeducation and Single-sex Schooling," 929.

all-female school environment increases women's leadership aspirations, civic engagement, and political participation.<sup>39</sup> An allfemale school may influence a female student's attitude by providing more leadership opportunities. In physical education, for example, single-sex classes are thought to permit girls to gain confidence, especially in team games.<sup>40</sup> Moreover, for Herman Brutsaert (1999), gender identity may also be dependent on the sex composition of the school environment.<sup>41</sup> He explains that girls are more pressured to maintain their gender identity in the presence of boys. So, they are more explicit in maintaining expectations like being attractive and popular in a coeducational context. Single-sex schools can weaken traditional gender biases for girls by developing and exposing them to more powerful and competent female role models.<sup>42</sup>

On the other hand, Reginald R. Dale (1969) argues that coeducational schools provide a better social environment to both students and teachers and that it is not detrimental to students' academic progress.<sup>43</sup> Contrary to the earlier assertions, Roch Chouinard, Carole Vezeau, and Therese Bouffard (2008) show that attending either a single-sex or mixed-sex school has little impact on girls' motivation in language and mathematics.<sup>44</sup> Carole B. Shmurak (1998) reveals that scores in a standardized test from graduates of single-sex schools and coeducation schools show no significant difference.<sup>45</sup> This is affirmed by Hyunjoon Park, Jere R. Behrman, and Jaesung Choi (2018), who also note in their study that all-girls schools

<sup>39</sup> Amber Hye-Yon Lee and Nicholas Sambanis, "Does School Environment Shape Gender Differences in Leadership and Participation? Evidence from a Natural Experiment in South Korea," SSRN, January 10, 2023.

<sup>&</sup>lt;sup>40</sup> Laura A. Hills and Amanda Croston, "'It should be better all together': Exploring Strategies for 'Undoing' Gender in Coeducational Physical Education," *Sport, Education and Society* 17, no. 5 (October 2012), 592.

 $<sup>^{\</sup>rm 41}$  Brutsaert, "Pupils' Perceptions of Discipline and Academic Standards in Belgian Coeducational and Single-Sex Schools," 72.

<sup>&</sup>lt;sup>42</sup> Candace B. Heyward, "Catching Up: Gender Values at a Canadian Independent School for Girls, 1978-93," *Gender and Education* 7, no. 2 (1995), 202.

<sup>&</sup>lt;sup>43</sup> Reginald Dale, *Mixed or Single-sex Schools? Vol. 1* (London: Routledge & Kegan Paul, 1969), cited in Chouinard, Vezeau, & Bouffard, "Coeducational or Single-sex School." 131.

<sup>&</sup>lt;sup>44</sup> Chouinard, Vezeau, & Bouffard, "Coeducational or Single-sex School," 131.

<sup>&</sup>lt;sup>45</sup> Carole B. Shmurak, *Voices of Hope: Adolescent Girls at Single Sex and Coeducation Schools* (New York: Peter Lang Publishing, Inc., 1998), cited in Cheung, "Coeducation and Single-sex Schooling," 928.

do not show significant positive effects on girls' STEM outcomes.46 Through the case, they noted that girls nowadays do better in math than boys so they may be less affected by the sex composition of their school. These studies are inconsistent with the notion that an all-girls classroom provides a more favorable school environment or that the presence of the opposite sex interferes with their academic development. It highlights that girls' academic motivation varies over time and that other factors outside the school setup may influence it. This demonstrates the mixed empirical findings related to the academic outcomes of the two school contexts.

Additionally, some research has found that students and teachers generally prefer coed experiences, seen as a more congenial environment and tolerant of difference.<sup>47</sup> Sum Kwing Cheung (2015) states that students in coeducation schools have more positive attitudes toward their schools than single-sex schools.<sup>48</sup> For instance. interactions with the opposite sex contribute to making the school experience more fun in a coeducation school setting.<sup>49</sup> With this, mixed-sex learning environments provide students an avenue to have social interaction with members of the opposite sex, which allows them to be more affiliated with their peers and create friendships.<sup>50</sup> It promotes cross-group contact, tolerance, and cooperation across genders.51 Single-sex schooling creates an artificial atmosphere for learners<sup>52</sup>, which does not resemble real life or the workplace.<sup>53</sup>

In view of biological sex differences, some argue that the differences between male and female learning traits and abilities are insignificant, and thus, tailoring teaching strategies to cater to these has minimal impact.<sup>54</sup> The claim that there are biological sex differences, specifically brain-based sex differences, in learning is

50 Ibid., 929.

<sup>&</sup>lt;sup>46</sup> Hyunjoon Park, Jere R. Behrman, and Jaesung Choi, "Do Single-Sex Schools Enhance Students' STEM (Science, Technology, Engineering, and Mathematics) Outcomes?" Economics of Education Review 62 (2018), 44.

<sup>&</sup>lt;sup>47</sup> Robinson et al., "Single-sex Education in the 21st Century," 2.

<sup>48</sup> Cheung, "Coeducation and Single-sex Schooling," 928.

<sup>49</sup> Ibid.

<sup>51</sup> Hayes, Pahlke, and Bigler, "The Efficacy of Single-sex Education," 694.

<sup>52</sup> Remedios R. Centeno, "A Comparative Study of the Problems of Third and Fourth Year High School Girls in a Coeducational School and in a School Exclusively for Girls," 2.

<sup>53</sup> Cable and Spradlin, "Single-sex Education in the 21st Century," 8.

<sup>&</sup>lt;sup>54</sup> Robinson et al., "Single-sex Education in the 21st Century," 9.

already challenged. No widely accepted evidence exists that these differences impact how girls and boys ought to learn.55 Furthermore, sex segregation can be viewed to perpetuate stereotypes, which regrettably may eventually be perceived as legitimate biological differences. leading to lesser confidence. motivation. engagement.<sup>56</sup> Richard A. Fabes et al. (2013) find that gendersegregated classes strengthen rather than reduce gender-stereotype beliefs.<sup>57</sup> Accordingly, the more time students spend in segregated groups, the more likely they are to adopt these groups' collective norms and behaviors. Hence, they propose intergroup interaction to reduce gender bias.

Though there is a vast literature to support both single-sex education and coeducation, it is important to recognize that research findings related to the two are mixed and inconsistent.<sup>58</sup> Strikingly, more often than not, these said studies demonstrate contradicting results. This is true in recurring and overlapping trends and areas of single-sex and coeducation research, such as academic outcomes, career aspirations, sex differences, gender stereotypes, and gender equity.<sup>59</sup> Accordingly, most studies on how sex composition affects students and their learning environment need to account for other factors like race, culture, socioeconomic background, and schoolrelated variables like school climate, academic standard, class size, and teacher quality for better results.60 Thus, research findings must be interpreted cautiously, and the generalization of observed effects must be avoided. These mixed findings suggest that there is yet to be a shred of clear evidence to determine which between single-sex and coeducation schooling is a better option.61

<sup>56</sup> Cable and Spradlin, "Single-sex Education in the 21st Century," 6.

<sup>55</sup> Ibid.

<sup>&</sup>lt;sup>57</sup> Richard A. Fabes, Erin Pahlke, Carol Lynn Martin, and Laura D. Hanish, "Gender-segregated Schooling and Gender Stereotyping," *Educational Studies* 39, no. 3 (2013), 316.

<sup>&</sup>lt;sup>58</sup> Cheung, "Coeducation and Single-sex Schooling," 930; Hayes, Pahlke, and Bigler, "The Efficacy of Single-sex Education," 694; Robinson et al., "Single-sex Education in the 21st Century," 9.

<sup>&</sup>lt;sup>59</sup> Robinson et al., "Single-sex Education in the 21st Century," 4.

<sup>60</sup> Cheung, "Coeducation and Single-sex Schooling," 930; Hayes, Pahlke, and Bigler, "The Efficacy of Single-sex Education," 694; Robinson et al., "Single-sex Education in the 21st Century," 9.

<sup>61</sup> Cheung, "Coeducation and Single-sex Schooling," 930-931.

#### Liberal Feminism and Education

Liberal political theory is founded on rights, autonomy, and reason.<sup>62</sup> It declares that humans have the same essential qualities. whatever their differences are. They are bearers of rights, have the freedom to exercise those rights, and have the rationality to reflect on one's life and engage in public political deliberations. 63 With this, the liberal state is composed of autonomous and self-determined individuals.<sup>64</sup> These individuals can pursue their private pursuits because the society they belong to ensures that they are allowed to exercise their liberty (as long as the rights of others are not infringed or harmed). This setup distinguishes the public from the private sphere. Thus, personal beliefs, like religion and political preference, are considered private and outside the public domain. Provided this liberal paradigm, gender was pivotal in this historical development and separation of the public and private spheres.65 Men symbolized the public sphere, while women were relegated to the private sphere. "Men became increasingly associated with competition, politics, business, paid labor, and public life; women with religion, home, family, and private life."66 This separation further defined the social roles and responsibilities of women and men.

In response to this development, early feminists used the same liberal concepts to argue against women's assignment to the private realm. Liberal feminism advances the liberalist tradition while contributing to a political notion that women and men have equal human worth.<sup>67</sup> It embraces the value of freedom and advocates for a state or government that ensures this freedom for individuals. particularly women.<sup>68</sup> This call for freedom ranges from freedom from

64 Rudy, "Liberal Theory and Feminist Politics," 35.

<sup>62</sup> Ruth E. Groenhout, "Essentialist Challenges to Liberal Feminism," Social Theory and Practice 28, no. 1 (January 2022), 51.

<sup>65</sup> Ibid., 36.

<sup>67</sup> Brooke A. Ackerly, "Feminist Theory: Liberal," In International Encyclopedia of the Social & Behavioral Sciences, edited by N. J. Smelner & P. B. Baltes (Amsterdam: Elsevier, 2001), 5499.

<sup>68</sup> Amy R. Baehr, "Liberal Feminism," The Stanford Encyclopedia of Philosophy, October 18, 2007, https://plato.stanford.edu/archives/spr2021/entries/ feminism-liberal.

coercive interference to freedom as personal and political autonomy. Josephine Donovan (2000) states that "the central tenets of liberal feminism pertain to faith in rationality, confidence in individual conscience, a conviction in the similarity of male and female rationality, belief in education as a force to change society, independence and ultimate isolation of the individual, the doctrine of natural rights." <sup>69</sup> It values rationality and individualism, highlights public life, and rejects private life. For liberal feminism, women and men are equal, have equal economic, social, and political rights, and have the political and legal system to secure their rights.

One of the movement's proponents is Mary Wollstonecraft, an English philosopher and author. In her best-known 1792 work entitled "A Vindication of the Rights of Woman", Wollstonecraft utilizes the concepts of liberalism to counter the idea that women are meant for domestic life or the private sphere and the popular portrayal that women by nature are weak, delicate, and emotional. She argues that women could become full citizens in any state with enough education, exercise, social stimulation, meaningful work, and domestic support. The way to do this is, of course, through education. Women are ill-prepared for social duties because their minds and bodies lack training. Her revolutionary ideas about politics and pedagogy aim to transform the public and private spheres through a national educational policy geared toward creating virtuous citizens of both sexes. The women need to be educated to become good companions, wives, mothers, and citizens who are ruled by reason and self-

<sup>&</sup>lt;sup>69</sup> Josephine Donovan, "Feminist Theory: The Intellectual Traditions of American Feminism" (New York: Continuum, 1985), cited in Madeleine Grumet and Lynda Stone, "Feminism and Curriculum: Getting our Act Together," *Journal of Curriculum Studies* 32, no. 2 (2000), 185.

<sup>&</sup>lt;sup>70</sup> Jane Pollard, "Feminism and Work," in *International Encyclopedia of Human Geography* 2nd Edition, edited by Audrey Kobayashi (Amsterdam: Elsevier Science & Technology, 2020), 21.

<sup>71</sup> Rudy, "Liberal Theory and Feminist Politics," 37.

<sup>&</sup>lt;sup>72</sup> Sylvana Tomaselli, "Mary Wollstonecraft," The Stanford Encyclopedia of Philosophy, April 16, 2008, https://plato.stanford.edu/archives/win2020/entries/ wollstonecraft/.

<sup>&</sup>lt;sup>73</sup> Wendy Gunther-Canada, "Cultivating Virtue: Catharine Macaulay and Mary Wollstonecraft on Civic Education," *Women & Politics* 25, no. 3 (2003), 58.

command.<sup>74</sup> For Wollstonecraft (1996), public education should be directed to form citizens.<sup>75</sup>

Another key figure of liberal feminism is the nineteenth-century English philosopher John Stuart Mill. His work "The Subjection of Women" (1869) presented arguments based on liberal and utilitarian principles to support women's social and political equality. Mill's discussion raised how women are denied free and rational choice, how women are disadvantaged in marriage, and how lacking or faulty women's education is. These ideas served as the core of progressive liberal feminism in the nineteenth century. Though he believes that women's nature differs from men's, Mill argues that they could be like men, capable of public duty with improved education. Like Wollstonecraft, Mill emphasizes education's role in developing women's rational capacity and attaining equality and inclusion in the social and political spheres.

The discussions mentioned above highlight the essential role of education in liberal feminism. For liberal feminists, developing one's faculties and the whole person requires education. Denying women access to education is denying the development of their full human potential.<sup>78</sup> Equal access to it is the way for women to free themselves from the confines of the private and personal realm and to have political participation. Education leads to learning about morality, effective citizenship, and rejecting unequal power and corruption.<sup>79</sup> When women can make public contributions, society will benefit.<sup>80</sup>

Education is the key to making good liberal subjects.<sup>81</sup> Hence, it became liberal feminism's main focus through the nineteenth century and early twentieth century, though the full-scale inclusion of women in education only happened in the contemporary women's

<sup>74</sup> Sylvana Tomaselli, "Mary Wollstonecraft."

 $<sup>^{75}</sup>$  Mary Wollstone craft, A Vindication on the Rights of Woman (New York: Dover Publications, Inc., 1996), 373.

<sup>&</sup>lt;sup>76</sup> Susan Hekman, "John Stuart Mill's The Subjection of Women: The Foundations of Liberal Feminism," *History of European Ideas*, 15, no. 4-6 (1992), 681.

<sup>77</sup> Ibid.

<sup>&</sup>lt;sup>78</sup> Ackerly, "Feminist Theory: Liberal," 5499.

<sup>&</sup>lt;sup>79</sup> Elizabeth Frazer, "Mary Wollstonecraft and Catharine Macaulay on Education," *Oxford Review of Education* 37, no. 5 (October 2011), 614.

<sup>80</sup> Ackerly, "Feminist Theory: Liberal," 5499.

<sup>81</sup> Rudy, "Liberal Theory and Feminist Politics," 37.

movement.<sup>82</sup> To give more context, while liberal feminism is one of the most dominant ideologies in the early women's movement, it is not without its problems. Rudy (1999) argues that it helped perpetuate social inequalities as women who seek full participation in public life can only leave their private life by hiring women from lower classes, such as people of color, to do the work they will leave behind.<sup>83</sup> One criticism against liberal feminism is its focus on women's rational capacity and free will, which neglects the presence of other differences like race and socioeconomic status.<sup>84</sup> Liberal feminism, in reality, was confined to a small minority of predominantly white, educated uppermiddle class women. When women's suffrage was won, the movement abandoned any broader agenda and isolated itself from other progressive movements.<sup>85</sup>

Fortunately, the vibrant women's movement in the sixties brought about major changes in the lives of many women. Secondwave feminists successfully framed inequality and oppression in the family and personal relations as a political question, opening it up to public scrutiny. Unlike the first wave, this movement included people of color, workers, and the LGBT community. It has considered racial and class differences and also differences in sexual orientation in its assessment of women. However, this is not to say that the equality raised by liberal feminism has ceased to exist. While women's movements have won rights for women, the fight against gender inequalities continues. Thus, liberal feminism's commitment to promoting equal education for all and its use for social reform continues to be relevant.

82 Ibid.

<sup>83</sup> Ibid., 44.

<sup>&</sup>lt;sup>84</sup> Julinna C. Oxley, "Liberal Feminism" in *Just the Arguments: 100 of the most important Arguments in Western Philosophy* edited by Michael Bruce and Steven Barbone (Wiley-Blackwell, 2011), 259.

<sup>&</sup>lt;sup>85</sup> Barbara Epstein, "What Happened to the Women's Movement," *Monthly Review-New York* 53, no. 1 (2001), 2.

<sup>86</sup> Ibid., 1.

<sup>87</sup> Ibid., 4-5.

<sup>88</sup> Ibid., 5.

# **Liberal Feminism on Single-Sex Education**

When coeducation or mixed-sex schools started to become widespread in the mid-nineteenth century, discussions on its pros and cons emerged with whether this form of school environment is superior to the single-sex school setting. As mentioned, single-sex and mixed-sex education research findings are often mixed and contradictory. Hence, until now, there is much difficulty determining which of the two learning environments produces better academic outcomes and solutions to address the enduring problem of gender inequity in education. On the one hand, some feminists supported the transition to coeducation, thinking that gender equality can only be achieved in this setup.<sup>89</sup> On the other hand, some feminists argue that girls are often disadvantaged in a mixed-sex learning environment. So single-sex schooling is a solution to achieving gender equity in education.<sup>90</sup> These opposing views reflect the varied theories and understanding in identifying and determining the best learning environment. It highlights the necessity of equitable education for all, especially for women, that the liberal feminist movement advocates for. We now ask, "In what ways can single-sex schools promote the ideals of liberal feminism?".

Single-sex education advocates claim that sex-segregated learning environments create benefits more than mixed-sex learning settings, which points to gender equity in education. Firstly, single-sex education is viewed as disrupting gender norms and stereotypes. It allows girls to find their space in traditionally male-associated courses like mathematics and science, leadership roles, and even athletics. However, there is empirical evidence that debunks these claims. Accordingly, single-sex schools can reinforce gender normative and heteronormative assumptions and practices if there are no purposeful actions to disrupt the norms, which is especially true for traditional single-sex schools.<sup>91</sup>

<sup>&</sup>lt;sup>89</sup> Carole B. Shmurak, *Voices of Hope: Adolescent Girls at Single Sex and Coeducation Schools* (New York: Peter Lang Publishing, Inc., 1998), cited in Cheung, "Coeducation and Single-sex Schooling," 927.

<sup>&</sup>lt;sup>90</sup> Cheung, "Coeducation and Single-sex Schooling," 927.

<sup>&</sup>lt;sup>91</sup> Robinson et al., "Single-sex Education in the 21st Century," 9.

Secondly, much of the interest in single-sex schools is due to their perceived high academic outcomes.92 Single-sex schools, particularly all-girls schools, are viewed to have higher discipline value and stronger academic orientation compared to coed schools.93 This is due to its perceived emphasis on values like obedience and order and having an environment where students do not compete with and are not distracted by the opposite sex. In contrast, studies suggest that coeducational schools provide a better social environment for both students and teachers.94 Students are not experiencing artificial socialization, and there is no significant difference in academic outcomes when comparing the two settings. This contradicts the common belief that coeducation schooling favors boys over girls. Research results are mixed and do not establish that single-sex school students, particularly girls, have higher academic achievements and career aspirations than those in coeducation schools.95

And thirdly, single-sex education intends to respond better to female and male students' different learning abilities and needs. This reflects essentialist perspectives, such as the claim that sexual behavior has a biological basis or that women and men are different due to universal cultural experiences. The former points to how people are determined by their biological and genetic makeup, while the former refers to cultural expectations such as women being relational and men being autonomous and independent. John D. DeLamater and Janet Shibley Hyde (1998) explain that biological and cultural essentialism argues that sexual phenomena are innate through hormones, genetics, or personality traits. This contrasts with social constructionism, which views sexual phenomena as external to the individual or as an influence by one's society. Essentialism suggests the popular concept that girls and boys have diverse learning traits and styles, and so instruction should be tailored to these

<sup>92</sup> Ibid., 4.

<sup>&</sup>lt;sup>93</sup> Herman Brutsaert, "Pupils' Perceptions of Discipline and Academic Standards in Belgian Coeducational and Single-Sex Schools," *Evaluation & Research in Education* 16, no. 2 (2002), 71.

<sup>94</sup> Chouinard, Vezeau, & Bouffard, "Coeducational or Single-sex School," 131.

<sup>95</sup> Robinson et al., "Single-sex Education in the 21st Century," 4.

<sup>&</sup>lt;sup>96</sup> John D. DeLamater and Janet Shibley Hyde, "Essentialism vs Constructionism in the Study of Human Sexuality," *The Journal of Sex Research* 35, no. 1 (1998), 13.

biological differences to have higher academic achievements. However, no definitive evidence supports this view. For instance, it is argued that neurosexism, the belief that female and male brains have fixed differences, needs more empirical evidence<sup>97</sup> while gender differences in education-relevant traits like performance in math and science are described as small if not non-existent.<sup>98</sup> Hence, teaching girls and boys differently may perpetuate stereotypes and be perceived as a legitimate biological difference.<sup>99</sup>

Liberal feminists are vocal critics of single-sex schooling. 100 Liberal feminism is based on the idea that all humans have rights and are capable of rational autonomy. In one view, liberal feminists adhere to the assimilationist model that promotes equal treatment between women and men because both have the same rights.<sup>101</sup> This recognizes that gender differences, even if they benefit women, are outdated norms and must be discontinued. It argues that the presence of equal rights and rational capacity ensures that women and men are similar, though they may have differences, biologically, culturally, etc. Liberal feminists may argue that women and men should be treated equally and educated together. The varying results of single-sex learning highlight the complex barriers to achieving gender equity. 102 Thus, instead of creating more single-sex schools, we can look at how schools are organized and how gender gaps in education may be addressed by developing a more engaging and inclusive curriculum and pedagogy that promotes equity.

In another view, single-sex and mixed-sex education may indicate making education available and accessible to all, particularly to women. For example, in the United States, the rise of single-sex public schools provides low-income families options for where to send their children, previously only afforded by privileged families. In addition, though still contested, one popular reason defenders of single-sex schools use is the belief that it improves educational

<sup>97</sup> Robinson et al., "Single-sex Education in the 21st Century," 9.

<sup>98</sup> Pahlke and Hyde, 82.

<sup>99</sup> Cable and Spradlin, "Single-sex Education in the 21st Century," 8.

<sup>100</sup> Rosemary C. Salomone, "Feminist Voices in the Debate over Single-Sex Schooling: Finding Common Ground," *Michigan Journal of Gender & Law* 11, no. 1 (2004), 79.

 $<sup>^{101}</sup>$  Ibid.

<sup>&</sup>lt;sup>102</sup> Robinson et al., "Single-sex Education in the 21st Century," 8.

experiences and achievements of low-income students of color.<sup>103</sup> In the study of Lea Hubbard and Amanda Datnow (2005) involving single-sex academies in California, they reveal that state funding for single-sex public schools allowed low-income and minority students to improve their academic achievement. 104 These schools provided resources and special services like small classes, extra teachers. academic tutoring, health care facilities, and counseling, which were absent from their previous schools. However, these schools' funding also resulted in the loss of these advantages. In one school, the reduction of the teaching staff and closure of extra programs for lowincome students due to lack of financial support from the government negatively impacted its students.<sup>105</sup> For low-income and minority students, learning is a privilege they can only maximize when their life situations are less burdened with problems. 106 In this case, the positive experiences associated with single-sex schools heavily rely on or are limited to generous state funding.

Indeed, there are factors and contexts beyond school or class sex composition that can have significant impacts on education's gender equity concern. Single-sex schools may be regarded as an alternative to coeducation schools and make education more accessible to all. As noted, the call of liberal feminism to provide equitable education should not only be limited to largely white, uppermiddle-class women.<sup>107</sup> Education needs to be made accessible so women can have options to exercise their rights and participate in social and political life. While caution is advised in dealing with the mixed and contradictory findings of the benefits of both forms of schooling, perceived advantages of single-sex schooling and its availability as an alternative to coeducation may be one solution to the enduring problem of gender equity in education.

<sup>&</sup>lt;sup>103</sup> Sara Goodkind et al., "Providing New Opportunities or Reinforcing Old Stereotypes? Perceptions and Experiences of Single-sex Public Education," *Children and Youth Services Review* 35 (2013), 1174.

Lea Hubbard and Amanda Datnow, "Do Single-Sex Schools Improve the Education of Low-Income and Minority Students? An Investigation of California's Public Single-Gender Academies," *Anthropology & Education Quarterly* 36, no. 2 (2005), 128.

<sup>105</sup> Ibid., 127.

<sup>106</sup> Ibid., 128.

<sup>&</sup>lt;sup>107</sup> Rudy, "Liberal Theory and Feminist Politics," 37.

## **Conclusion**

Liberal feminism advocates for the social and political notion that women and men are equal and that women are capable of participating in the public sphere. This recognition that women are capable of self-determination and political participation highlights the importance of education. Liberal feminists argue that the development of the whole person requires education, and to deny women access to the same education given to men is to deny their development to become full citizens. Concerning education and the women's movement, the debate between the advantages and disadvantages of the learning environment may impact the concept of gender equity in education. In one view, gender equity in education is only possible through coeducation. In another, gender gaps in education can only be addressed by single-sex education. Both forms proved advantageous in the vast literature available about the topic. However, these research results are regarded as mixed and often contradictory.

While there is still difficulty in determining which school environment is better or superior, studies have shown that effectiveness based on the sex composition of classes or schools may depend on some contexts like socioeconomic backgrounds, race, teacher quality, funding, etc. In relation to this, single-sex public schools, amid widespread mixed-sex schools, make education more accessible, which is at the heart of the liberal feminist movement. As noted, the liberal feminist paradigm advances the concept that women's education is a force that will change and benefit society. Thus, it should be accessible and available to all women needing it.

To answer the hypothesis raised at the beginning of this paper, this study finds that while we cannot identify which of the two forms is superior or is a solution to the problem of gender equity in education, both have their benefits. Therefore, this paper contends that the growing presence of single-sex schools can be welcomed. Single-sex education may be viewed as not simply an alternative but a viable form of education capable of addressing certain learning needs and demands beyond the dictates of one's biological sex. As mentioned, research outputs have illustrated that single-sex education provides advantages for students from low-income families and minority groups or that it motivates girls to do better in math and science courses, take leadership roles, and join sports.

These insights tell us that there is no one-size-fits-all kind of education. The availability of different forms of schooling, whether single-sex or mixed-sex, allows learners to enroll in a school setting where they can fit or excel. On the one hand, single-sex schools, though outnumbered in the current education landscape, serve as a reminder that the dominant mixed-sex setup has vet to prevail over concerns about gender equity in education. On the other hand, the rising presence of single-sex schools is an opportunity to improve the quality of education in mixed-sex schools and to look at how they are organized to respond effectively to education concerns. In this way, single-sex and coeducation schools can evaluate how they can contribute to creating a more inclusive and equitable learning environment. The paper highlights the role of education in social reform. Echoing liberal feminism, society benefits when all members can contribute. This underlines the significance of addressing gender gaps in education so women and those belonging to low-income families and marginalized groups can be empowered to have social and political participation.

With this, the study suggests that more research needs to be conducted in view of the accessibility of single-sex schools. The rise of single-sex schools in the US comes from their availability in public education. However, expensive private and religious schools often offer single-sex education in countries like the Philippines. Given this, it will be interesting to know how these Philippine single-sex schools fare in promoting accessible education, especially if their stakeholders mostly belong to middle- and upper-class families. Additionally, more single-sex Philippine schools are transitioning to coeducation due to low enrolment. This raises questions about whether single-sex schools are still relevant in the country's context. Furthermore, one of the great contentions in the debate between single-sex and mixed-sex schooling is the issue of whether they reinforce or challenge gender norms. Given that many of the schools that provide single-sex education are religious institutions, this paper recommends research concerning how these schools address harmful gender norms, stereotypes, and other gender-related concerns in the background of traditional, and most often conservative, practices and beliefs.

### References

- Ackerly, Brooke A. "Feminist Theory: Liberal" in *International Encyclopedia of the Social & Behavioral Sciences.* Edited by N. J. Smelner & P. B. Baltes, 5499-5002. Amsterdam: Elsevier, 2001.
- Baehr, Amy R. "Liberal Feminism" in *The Stanford Encyclopedia of Philosophy*. Stanford University, 2021. Article published October 18, 2007; last modified December 31, 2020. https://plato.stanford.edu/archives/spr2021/entries/feminis m-liberal.
- Bracey, Gerald W. Separate but Superior? A Review of Issues and Data Bearing on Single-Sex Education. Tempe, Arizona: Educational Policy Research Unit (EPRU), Arizona State University, 2006. https://nepc.colorado.edu/publication/separate-but-superior-a-review-issues-and-data-bearing-single-sex-education.
- Brutsaert, Herman. "Pupils' Perceptions of Discipline and Academic Standards in Belgian Coeducational and Single-Sex Schools." *Evaluation & Research in Education* 16, no. 2 (2002): 71-81.
- Cable, Kelly E. and Terry E. Spradlin. "Single-sex Education in the 21st Century." *Education Policy Brief* 6, no. 9 (Fall 2008): 1-12. https://files.eric.ed.gov/fulltext/ED503856.pdf
- Centeno, Remedios R. "A Comparative Study of the Problems of Third and Fourth Year High School Girls in a Coeducational School and in a School Exclusively for Girls." Master's thesis, De La Salle University, 1970.
- Cheung, Sum Kwing. "Coeducation and Single-Sex Schooling." In *International Encyclopedia of the Social & Behavioral Sciences* 2<sup>nd</sup> Edition, Volume 3, edited by J. D. Wright, 926-931. Amsterdam: Elsevier. 2015.
- Chouinard, Roch, Carole Vezeau, & Therese Bouffard. "Coeducational or Single-sex School: Does It Make a Difference on High School Girls' Academic Motivation?" *Educational Studies* 34, no. 2 (May 2008): 129-144.
- DeLamater, John D. and Janet Shibley Hyde. "Essentialism vs Constructionism in the Study of Human Sexuality." *The Journal of Sex Research* 35, no. 1 (1998): 10-18.
- Fabes, Richard A., Erin Pahlke, Adrienne Z. Borders, and Kathrine

- Galligan. "US Principals' Attitudes about and Experiences with Single-Sex Schooling." *Educational Studies* 41, no. 3 (2015): 293-311.
- Fabes, Richard A., Erin Pahlke, Carol Lynn Martin, and Laura D. Hanish. "Gender-segregated Schooling and Gender Stereotyping." *Educational Studies* 39, no. 3 (2013): 315-319.
- Frazer, Elizabeth. "Mary Wollstonecraft and Catharine Macaulay on Education." *Oxford Review of Education* 37, no. 5 (October 2011): 603-617.
- Goodkind, Sara, Lisa Schelbe, Andrea A. Joseph, Daphne E. Beers, and Stephanie L. Pinsky. "Providing New Opportunities or Reinforcing Old Stereotypes? Perceptions and Experiences of Single-sex Public Education." *Children and Youth Services Review* 35 (2013): 1174–1181.
- Groenhout, Ruth E. "Essentialist Challenges to Liberal Feminism." *Social Theory and Practice* 28, no. 1 (January 2022): 51-75.
- Grumet, Madeleine and Lynda Stone. "Feminism and Curriculum: Getting our Act Together." *Journal of Curriculum Studies* 32, no. 2 (2000): 183-197.
- Gunther-Canada, Wendy. "Cultivating Virtue: Catharine Macaulay and Mary Wollstonecraft on Civic Education." *Women & Politics* 25, no. 3 (2003): 47-70.
- Gurian, Michael, Kathy Stevens, and Peggy Daniels. "Single-sex Classrooms are Succeeding." *Educational Horizons* 87, no. 4 (Summer 2009): 234-245.
- Hayes, Amy Roberson, Erin E. Pahlke, and Rebecca S. Bigler. "The Efficacy of Single-sex Education: Testing for Selection and Peer Quality Effects." *Sex Roles* 65 (November 2011): 693–703.
- Hekman, Susan. "John Stuart Mill's The Subjection of Women: The Foundations of Liberal Feminism." *History of European Ideas*, 15, no. 4-6 (1992): 681-686.
- Heyward, Candace B. "Catching Up: Gender Values at a Canadian Independent School for Girls, 1978-93." *Gender and Education* 7, no. 2 (1995): 189-204.
- Hills, Laura A. and Amanda Croston. "It should be better all together': Exploring Strategies for 'Undoing' Gender in Coeducational Physical Education." *Sport, Education and Society* 17, no. 5 (October 2012): 591-605.
- Hubbard, Lea and Amanda Datnow. "Do Single-Sex Schools Improve

- the Education of Low-Income and Minority Students? An Investigation of California's Public Single-Gender Academies." *Anthropology & Education Quarterly* 36, no. 2 (2005): 115-131.
- Jackson, Carolyn and Moray Bisset. "Gender and School Choice: Factors Influencing Parents when Choosing Single-sex or Co-educational Independent Schools for their Children." *Cambridge Journal of Education* 35, no. 2 (June 2005): 195-211.
- Kollmayer, Marlene, Barbara Schober and Christiane Spiel. "Gender Stereotypes in Education: Development, Consequences, and Interventions." *European Journal of Developmental Psychology* 15, no. 4 (2018): 361-377.
- Lee, Amber Hye-Yon and Nicholas Sambanis. "Does School Environment Shape Gender Differences in Leadership and Participation? Evidence from a Natural Experiment in South Korea." SSRN. January 10, 2023.
- Oxley, Julinna C. "Liberal Feminism" in *Just the Arguments: 100 of the most important Arguments in Western Philosophy.* Edited by Michael Bruce and Steven Barbone. Wiley-Blackwell, 2011.
- Park, Hyunjoon, Jere R. Behrman, and Jaesung Choi. "Do Single-Sex Schools Enhance Students' STEM (Science, Technology, Engineering, and Mathematics) Outcomes?" *Economics of Education Review* 62 (2018): 35-47.
- Pahlke, Erin and Janet S. Hyde. "The Debates Over Single-Sex Schooling." *Child Development Perspectives* 10, no. 2 (2016): 81-82.
- Pollard, Jane. "Feminism and Work." In *International Encyclopedia of Human Geography* (2nd Edition), edited by Audrey Kobayashi, 21-28. Amsterdam: Elsevier Science & Technology, 2020.
- Robinson, Daniel B., Jennifer Mitton, Greg Hadley, and Meagan Kettley. "Single-sex Education in the 21st Century: A 20-year Scoping Review of the Literature." *Teaching and Teacher Education*, 106, no. 103462 (2021): 1-12.
- Rudy, Kathy. "Liberal Theory and Feminist Politics." *Women & Politics* 20, no. 2(1999): 33-57.
- Salomone, Rosemary C. "Feminist Voices in the Debate over Single-sex Schooling: Finding Common Ground." *Michigan Journal of Gender & Law* 11, no. 1 (2004): 63-95. https://repository.law.umich.edu/cgi/viewcontent.cgi?article =1099&context=mjgl

- Sax, Linda J., Emily Arms, Maria Woodruff, Tiffani Riggers, and Kevin Eagan, Women Graduates of Single-Sex and Coeducation High Schools: Differences in their Characteristics and the Transition to College. Los Angeles: The Sudikoff Family Institute for Education & New Media UCLA Graduate School of Education & Information Studies, 2009.
- Tomaselli, Sylvana. "Mary Wollstonecraft." In *The Stanford Encyclopedia of Philosophy*. Stanford University, 2020. Article published April 16, 2008; last modified December 3, 2020. https://plato.stanford.edu/archives/win2020/entries/wollstonecraft/
- Wollstonecraft, Mary. *A Vindication on the Rights of Woman*. New York: Dover Publications, Inc., 1996.