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Use of Technology by Ecuadorian Teachers: An Exploratory Study about Gender Roles

By Ximena D. Burgin¹

Abstract

Since the 1970s, middle-class educated Ecuadorian women have engaged in activism for gender equality in civil, political, social, and economic sectors in Ecuador. Ecuador has enacted legal frameworks to promote equality between men and women in the workplace. However, women remain at a disadvantage regarding salaries, working hours, and access to education. Moreover, the current educational needs have accentuated the importance of integrating technology in the classroom which have changed teaching practices based on teachers' pedagogical approaches as well as teachers' gender. Teachers' decision-making process is influenced by sociocultural norms about gender roles. This ethnographic case study explored the interactions between men and women teachers regarding the use of technology in the classroom utilizing the Nominal Group Technique (NGT) to examine decision-making processes. Sixteen Ecuadorian elementary teachers, nine women and seven men teachers with five to 26 years of teaching experience, from a private school, participated in the study. Utilizing constant comparison analysis, two themes emerged: teachers' persuasive argumentation and teachers' philosophy of education. Regarding the presentation of arguments about the use of technology, participants evidenced different approaches based on their gender. For example, men participants with experience and status dominated the discussion, while women participants listened to the different points of view presented before providing their own point of view and their justification. Concerning teachers' philosophy of education, men and women participants stated different approaches to teaching and learning. Men teachers were more focused on professional development opportunities and using technology as an aid for their work, whereas women teachers were more focused on nurturing students' skill development. While both men and women teachers used technology in the classroom, their teaching philosophies were quite different; women teachers took a more holistic approach to considering technologies' positive and negative impacts upon students. Although Ecuador's government supports equality in the workplace, this study suggests that gender differences in decision-making leads to men's voices dominating workplace situations; thus, provisions within school policies are needed to achieve the desired equality of the genders in the workplace.

Keywords: Gender roles, Education, Educational technology, Decision-making, Teaching philosophy, Nominal Group Technique, Ecuador

Introduction

In the past three decades, the ongoing process of integrating technology in education has been changing classroom practices (Etmer et al., 2012; Ruggiero & Mong, 2015). The task of utilizing different pedagogical approaches to deliver content and support learning has been left to classroom teachers (Ertmer, 2005; Namaziandost & Cakmak, 2020; Ruggiero & Mong, 2015; Stobaugh & Tassell, 2011). The Nellie Foundation reported that student-centered teachers used more technology (e.g., games) in the classroom (Moeller & Reitzes, 2011);

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however, other researchers (Andrew, 2007; Gray et al., 2012; Koehler & Mishra, 2009) concluded that teachers' pedagogical practices change as more technology is integrated into the classroom. Several factors such as attitude toward use of computers (Kay, 2006a), availability of hardware and software (Gray et al., 2012), teacher training (Birch, 2008), and professional support (Ertmer et al., 2012; Kooli & Abadli, 2021; Project Tomorrow, 2011) impact technology integration into the classroom. Other studies looking at gender and use of technology argued that gender remains an important factor for technology integration due to men's and women's perceptions about how it should be implemented (Heafner et al., 2015; Huang et al., 2013; Lunenburg, 2018; Sherman et al., 2009). Thus, it is important to use the gender-technology dialogue among in-service teachers in Ecuador to understand the progress of using technology and gender-related issues (Bray, 2007; Crocco et al., 2008; Friedman & Hicks, 2006; Kooli & Muftah, 2020).

Although gender equality in civil, political, social, and economic spheres has been the results of activism started by middle-class educated women in the 1970s and the 2008 Ecuadorian constitution (Georgetown University, 2011; Lind, 2004; Manna Project International, 2016), the level of equality in social and decision-making relationships between men and women in work settings requires investigation (Kooli, 2019). In response, this study used the Nominal Group Technique (NGT) to explore the role of gender to understand decision-making regarding the use of technology in the classroom as influenced by gender differences among Ecuadorian teachers. The research questions guiding the study explored gender-based variations in using technology in the classroom and how teachers' gender and status was reflected in their focus group answers.

Role of Gender and Decision-Making

Gender influences one's decisions because of socioculturally constructed norms. Gender is defined as "a sociocultural expression of particular characteristics and roles that are associated with certain groups of people with reference to their sex and sexuality" (Jhpiego, 2020, para. 2). The definition implies divergent expectations that involve cultural and societal influences based on socially constructed and accepted manners and activities (Jackes & Osman, 2019; Skrla, 2000). The traditional view of feminine gender roles is linked to clear family and work expectations of men and women; for example, women are expected to be more nurturing than men with individuals and in community interactions (Blackstone, 2003). Ibarra Dávila, a sociologist, indicated that Ecuador has a patriarchal system and women are at a disadvantage due to *machismo*, defined as "the exercise of power of men over women" (Manna Project International, 2016, para. 4).

According to UN Women (n.d.), Ecuador has a population of 14.5 million, 50.4% of them women and 49.6% men. Despite the progress made by Ecuador towards gender equality through implementation of a legal framework, women still face issues such as discrimination, low income, lack of job opportunities, violence, and inequality in the workplace, showing the imbalance of power between men and women (World Bank, 2018). Because decision-making is influenced by one's gender (England, 2001; Kooli, 2019; Lunenburg, 2018), gender biases can set up oppositional relationships with members of the other gender because of how members of each group act (Grogan, 1996; Koch et al., 2015; Shakeshaft, 1989; Tellerico, 2000).

Regarding decision-making, there are five distinct personal styles: rational, intuitive, reliant, avoidant, and spontaneous (Scott & Bruce, 1995). Individuals may have several decision-making styles; however, one style tends to be more dominant for each person (Allwood & Salo, 2012; Thunholm, 2004). Some have reported that women and men have different styles of decision-making (Caprino, 2016); Gray (1992) stereotypes women as having an intuitive decision-making style while men's style is described as rational. However, other

scholars have stated that women are more likely to use an interpersonally oriented decision-making approach and men to be more affective/experiential (Byrnes et al., 1999; Cross, et al., 2011; Philipps et al., 1984; Tamres et al., 2002).

When decision-making relates to the use of technology in the classroom, research indicates that teachers' beliefs influence technology adoption (Lam, 2000; Houston, 2016; Sugar, 2004; Tondeur et al., 2017). Hope (1997) wrote, "Teachers basically had to contend with two factors [regarding technology adoption]: the psychological effect of change and learning to use microcomputer technology" (p. 158). Jacques and Osma (2019) indicated that women tend to make decisions using emotions compared to men who are emotion-neutral in their decision-making process. Brunner (2000), Grogan (1996), Tallerico (2000), and Skrla et al. (2000) noted that men participants tend to speak more during discussions, while women tend to be more silent and avoid conflict. Mehta (2015) found no gender differences among teachers' desired and actual participation in decision-making in managerial, technical, and institutional domains, concluding that although gender is a "determining factor in [the] management process" (p.14603), the differences are disappearing due to legal frameworks and policies supporting equality in the workplace (Namdeo, 2017; Profeta, 2017; Sadker et al., 1991).

Gender in Technology Integration

Technology integration in the classroom is not a new concept as evidenced by the many efforts in the past three decades to study the best practices, strategies, models, and theories of implementation (Ertmer et al., 2012; Ruggiero & Mong, 2015). According to Kay (2006b), Koehler and Mishra (2009), and Tondeur et al. (2017), pre-service teachers do not feel prepared to implement technology in the classroom even though higher education programs have specific curriculum to prepare future teachers with the needed skills. Ertmer (2005) reported that obstacles include external barriers (e.g., access and support) and internal barriers (e.g., attitudes, beliefs, and knowledge) as well as teacher perception (Tondeur et al., 2017; Stobaugh & Tassell, 2011; Zhao et al., 2002) to implement technology in the classroom.

Scholars have noted differences in the uses of technology by women and men. The gender gap starts in middle school and is exacerbated in high school (AAUW, 2010; Anderson & Williams, 2012). The use of technology in the classroom is a more dominant activity for men than women teachers (Heagner et al., 2013, 2015; Kay, 2006a; Teo et al., 2015; Yau & Cheng, 2012). Several studies (Hood, & Yoo, 2013; Frieze et al., 2012; Sherman et al., 2009; Weber & Custer, 2005) indicate that the use of technologies differed based on gender in that women teachers use technology for tasks that have social significance and men utilize technology for tasks that involve creation. Heafner et al. (2015) interviewed in-service social studies teachers, concluding that although "men and women teachers described themselves as student-centred" (p. 11), their constructivist beliefs and practices for using technology were different (Hsu, 2016). For example, men teachers use technology to increase the students' autonomy, while women teachers use it to keep control of the classroom environment.

According to Kay (2006a), affective, cognitive, self-efficacy, gender-bias, and behavioral intention are the measures to understand gender differences; however, the only variable which revealed higher scores for men was self-efficacy, leading to the conclusion that men have a more positive attitude towards the use of computers compared to women (Anderson & Maninger, 2007; Brinkerhoff, 2006). Nevertheless, Kahraman and Yilmaz (2018) and Tsai and Tsai (2010) reported that self-efficacy of Internet use for men and women teachers was similar, indicating that there were no gender differences when using the Internet for teaching.

Nominal Group Technique (NGT)

The Centers for Disease Control and Prevention (2018) define the NGT as a “structured variation of a small-group discussion to reach consensus” (p. 1). This technique was developed by Van de Ven and Delbecq (1971) through social-psychological studies and has been widely employed in health care and business settings. The NGT is known as a consensus methodology in which the participants’ knowledge and judgment are sought to arrive at a decision as a group that cannot be made by only one person (Delbecq et al., 1975; Jones & Hunter, 1995). The process is directed to problem-solving, idea-generating strategies, and/or determining priorities around a particular topic in a focus group of five to nine members (Delbecq et al., 1975; McMillan et al., 2016). The group members interact with each other, providing balanced participation (Centers for Disease Control and Prevention [CDC], 2018; Delbecq et al., 1975). The NGT process includes four steps to be performed during the session after the objective of the meeting has been introduced (CDC, 2018; Delbecq et al., 1975; Jones & Hunter, 1995; McMillan et al., 2016). Step one is the silent generation of ideas in writing, with each member of the group working independently to generate and write down as many ideas as possible. Step two is a round-robin recording of ideas in which each idea is shared without debate and the ideas are recorded on a flip chart visible to all participants. In step three (Serial Discussion), each idea is discussed and clarified. Lastly, step four (Preliminary Vote), the participants select and rank the most important ideas presented. The results are tallied, and the highest-ranked ideas are identified.

Since the process of the NGT is highly structured, the process empowers participants to provide ideas related to the objective presented for the session. As the process is implemented, participants’ input is recorded, discussed, and evaluated by all members in the NGT group. Thus, the participants feel their voices are heard and valued by other members of the group (Marley, 2004). The ideas enrich the discussion process due to the participants’ experiences, knowledge, and expertise in the context of the issue discussed.

Theoretical Background

This study utilized a feminist perspective and congruity theory. The feminist perspective “recognizes that there are social inequalities which rest on gender difference” (Grogan, 1996, p.21) and attempts to explain the complex interrelation of societal systems considering those results based on gender (England, 2001). Tong (2001) stated that feminist theory includes the belief that patriarchal structures favor men, promote discrimination of women and women’s issues, and acknowledge that the patriarchal system should change to bring equality for both genders. The social reality of women in a patriarchal society is that men are favored, which is reflected in the educational system and career advancement opportunities women can pursue. Dentith et al. (2006) explained that a feminist perspective “elaborate[s] on the causes and consequences of [women’s] oppression and suggest[s] ways in which such oppression can be resisted and overcome through social reform and individual awareness” (p. 384). This perspective brings attention to the complexity of the work setting such as the educational environment in which women are productive as well as limited by the ontological and epistemological assumptions of femininity and masculinity (Tong, 2001; Whitney, 2018). Dentith et al. (2006) relate power to control that “might facilitate another’s abilities or provide support and response” (p. 386). This aspect of power may be used to position others to advance their career opportunities. Postmodern feminism has used this argument to challenge the status quo by critiquing gender-bias in fields in which women are at a disadvantage and in society at large (Ebert, 1991; Kooli & Muftah, 2020; Matthews, 2018; Quiros, 2015; Sands & Nuccio, 1992).

Congruity theory (Eagly & Karau 2005) refers to the incongruity between women's gender roles and leadership roles. Cassidy (2018) contends the feminist perspective recognizes inequalities in the perceptions of gender while making decisions or judging women's ability to handle situations in leadership roles. The incongruity leads to a negative, or less positive, perception of women as leaders in their ability to be decisive and overcome negative stigma to advance professionally. Houston (2016) explained that decision-making differed for men and women due to their processes in approaching the problem. Houston found that men become "laser-focused" on rewards and, therefore, are willing to take more risks to achieve the reward "even if that reward has only a tiny chance of materialising" (as cited in Caprino, 2016). Women, on the other hand, weigh the risks to obtain smaller rewards that are attainable. Another issue mentioned by Houston is the external perception that men make crucial decisions, while women should be part of the support team or look out for the group. Cullinan (2018) and Jacques and Osman (2019) identified that men and women have different perspectives about how they engage in collaboration; specifically, women care more for the collective. Women are seen as too collaborative and insufficiently decisive compared to men (Caprino 2016). Williams Woolley et al. (2010) conducted a study utilizing 40 randomly assigned three-person groups to study collective intelligence about decision-making. The researchers reported a positive statistical correlation, with the proportion of women in the group indicating a higher social sensitivity than men, a trait that can be learned. Koneig (2011) examined stereotypes of leaders through a meta-analysis, concluding that men fit the societal and cultural norms about decision-making and leadership, leading to many challenges for women as they attempt to attain positions with substantial power and authority. The results of Koneig's study indicated the overall masculinity of leader stereotypes. Although this masculine cultural stereotype has been changing, it has not changed fast enough (Namdeo, 2017; Profeta, 2017).

Method

This exploratory research utilized an ethnographic qualitative case study approach (Creswell & Guetterman, 2019; Stake, 2000) to explore gender roles during an NGT discussion about technology implementation in the classroom. The NGT technique was utilized because it is an efficient tool to generate information on a particular topic allowing data analysis and comparisons to determine differences between the genders about using technology in the classroom. The data was collected from teachers in a private elementary-level education institution using focus groups and field notes. The researcher established the credibility and conformability of the interpreted data with the teachers to clarify the findings and analysis (Lincoln & Guba, 1985; Thomas & Magilvy, 2011).

Participants and Setting

This study was conducted in a private Ecuadorian urban school that has served K-12 grade level students for more than 60 years. The private educational institution has an infrastructure for kindergarteners, six classrooms for grades 1 to 6 (elementary level), and a building for high school students. The institution has plenty of space for students to play sports such as soccer, basketball, volleyball, or just hang out with friends under teachers' supervision. The researcher observed that children played group games, were talking with friends, or were enjoying a snack until it was time to go back to the classroom as the teachers supervised recess. The elementary classrooms were spacious, including a desk for the teacher, a computer for the teacher, an LCD projector, desks for the children, maps, and other supplies for teaching.

Sixteen elementary teachers participated in this study. They reported five to 26 years of experience teaching several subjects such as music, physical education, English, French, technology, and/or all subjects as elementary teacher substitutes. The group included nine

women and seven men teachers. Three focus groups were conducted with selection determined by the school principal. The first group included five women teachers, the second group consisted of five men teachers, and the third group involved three men teachers with three women teachers. The researcher explained the purpose of the study and distributed consent forms to comply with Institutional Review Board protocols during the first meeting.

Procedures

After the researcher and the participants introduced themselves, the researcher explained the NGT process. The opening statement included the roles of the participants and the objective, which was to answer the question: “If you could afford any technology (technology in the context of hardware and software), what types of technology (e.g., Internet, YouTube, Google translate, software, apps, games, and online lectures) would you include in the classroom to improve students’ achievement?” This process helped to map types of technology to improve students’ achievement utilizing teachers’ experiences and knowledge to create consensus about what was important. While sharing types of technology during the discussion and explaining the importance of a particular technology over another, the interactions between men and women teachers were exposed regarding their use of technology in the classroom.

The NGT followed the Centers for Disease Control and Prevention’s (2018) and Dunham’s (1998) recommended protocols. The first step (silent generations of ideas in writing) was to present the objective of the meeting; the session was conducted by asking the participants to write ideas independently about technologies to be used in the classroom. The next step (round-robin recording of ideas) was asking each participant for each of the ideas—one at the time—and writing them on a flip chart prepared before the meeting started and visible to all participants. This step continued until all ideas were shared. The third step (serial discussion) related to the discussion of the ideas recorded in the flip chart to clarify the ideas, document differences, and eliminate repeated ideas. Afterward, the researcher distributed a page with the objective at the top of the page and listed numbers one through five. The page was for the participants to select the five items from the flip chart list that they considered most important. In the preliminary vote step, they were then asked to rank the five selected items in the order of importance where one was the most important and five was the least important. Finally, the researcher added the scores to identify the idea(s) highly rated as a whole for the group. The results of the rankings were examined with the teachers to guide the focus groups conversations. The conversations produced a rich discussion among the participants about technology used in the classroom, but more importantly, the discussion revealed differences in the decision-making processes between men and women.

Data Analysis

The data collected through the discussions were analyzed using a constant comparison technique (Glaser & Strauss, 1967). The technique allowed the researcher to inductively develop codes, and the iterative process allowed comparisons of new data to existing data (Leech & Onwuegbuzie, 2007). After the results from the qualitative data were generated, all participants (nine women and seven men) were invited to read and provide comments on the findings; however, only six teachers accepted the invitation to corroborate the situated meaning within the sociocultural environment (Gee, 2005). The data analyses used the NGT results, focus groups data, and the researcher’s field notes to answer the following research questions:

- How does the gender of the educator reflect teachers’ philosophy in the decision-making process for using technology in the classroom?
- How were teacher’s gender and status reflected in the argumentative exposition of their

focus group answers?

Results

The first NGT group generated 27 ideas about technologies to be used in the classroom, with only one item in agreement (reliable Internet connection). The second NGT group produced 21 ideas about technologies to be used in the classroom, with only one item in agreement (Use of the Internet to find information). The third NGT group came up with 13 ideas about technologies to be used in the classroom, with three ideas in agreement (YouTube to look for videos and didactic materials, Google to look for worksheets and didactic materials, and computer games to help with concentration and memory). The codes were identified and grouped into themes through an iterative process of comparing new data to existing codes using Glasser and Strauss's (1967) constant comparison protocols. The process allowed the researcher to understand the differences between genders and their impact on decision-making. Two themes emerged regarding the differences between men and women participants from the systematic comparison: teachers' persuasive argumentation and teachers' philosophy of education.

Teachers' Persuasive Arguments

According to Nettel and Roque (2012), "argumentation aims to give reasons in support of a standpoint" (p. 59) while persuasion is "the acceptance of a position intended to engender a disposition to act" (p. 59). The first theme entails how the participants presented arguments to support their answers. A senior teacher, who was a man with more than 20 years of experience, was dominant in his arguments, forcing the other participants to support him. The senior teacher indicated early in the conversation: "I selected the Internet and professional development because the Internet is the platform for other applications and professional development because I can't use the applications if I don't know how to." While another participant was explaining why YouTube was important for her teaching, the senior teacher interrupted her to state that "it [YouTube] is an application like many of the rest of the options depicted on the board so without Internet you cannot do anything." The other men teachers did not contradict the senior teacher; instead, their comments acknowledged the senior teacher's responses as important and added their own ideas.

On the other hand, the women teachers showed openness to ideas shared by colleagues. They listened to each other without interruptions and were independent of seniority. The women teachers provided examples about applications they have used to support their teaching and students' learning. A woman teacher indicated, "I like the Internet because it has materials that help me to improve instructional delivery." Two teachers mentioned Google and YouTube: "The applications help students with research, and students can interact with the content, which is good for my students." All women teachers agreed about current students' technological literacy: "...Students know more than us about the use of the Internet and computers, which makes me feel uncomfortable." The women teachers presented positive and negative comments, demonstrating their emotions about the use of technology in the classroom.

To understand the situated meaning of the teachers' persuasive arguments, the teachers were asked to comment directly on the results regarding "teachers' persuasive argumentation." The teachers reviewing the information indicated that teachers with many years of experience tended to be authoritative due to the knowledge they had amassed during their classroom experiences; in contrast, young men teachers approached the issues as teamwork to collaboratively find solutions with women teachers. One teacher said, "Experienced men teachers forced their answers in meetings...my ideas are not heard because they [experienced men teachers] think they are right." Two women participants indicated that "although experienced men teachers are authoritative, women teachers are presenting strong arguments

during meetings.” A teacher provided an example about her promotion and having to lead a team formed of only men teachers: “I am in charge of the athletic department. I am the only woman in the team. It has been hard to lead the group because I feel there are higher expectations for my leadership.”

The data seemed to indicate that senior men teachers used their experience to signal that their comments were more valuable compared to the women’s comments and/or ideas. Moreover, the interruptions from the senior teacher did not allow the women to build on their ideas. The gender differences in the current study were present not only in the examples they provided but also in their participation during the focus groups, showing that men had more control over the discussion about decision-making in the classroom. This finding is related to the Ecuadorian patriarchal system in which men’s voices are considered more important than women’s due to their gender (Manna Project International, 2016).

Teachers’ Philosophy of Education

The second theme is the teachers’ beliefs about teaching and learning, including the meaning of education. According to Norton et al. (2000), Sugar et al. (2004), Hu (2016), and Kooli (2020), teaching philosophy influences teachers’ technology beliefs. Two differences were observed between the men and women teachers: students’ holistic development and being open to other teachers’ ideas. Regarding the students’ holistic development, women teachers expressed the importance of developing students’ skills to help them academically and to be able to transfer the skills to other contexts. Several women teachers indicated that students learn through songs and games: “I need the student to explore and learn by doing things...I can’t expect the student to experience things such as cutting paper by watching videos on the Internet all day long.” Another teacher expressed the downside of technology: “I have noticed that students don’t talk among themselves as expected from children in the past...” Another woman teacher supported the importance of manipulatives: “group games help children to develop other skills such as communication and being a good sport.” All women teachers agreed on the importance of developing students’ skills by using a variety of strategies in the classroom. On the other hand, the men teachers addressed students’ skill development in the context of their performance based on the teachers’ instructions. A man teacher offered an example about soccer: “I utilized Google to find out about tactical strategies. I provided the information to the students to follow my instructions.” Another teacher explained, “I used YouTube to find songs for my class to download the lyrics and the music sheets.” The perspectives presented by the men and women participants indicated differences in their approaches to student education. The gender variations about the adoption of technology were not reflected in the use of technology in the classroom but were reflected in the fact that women educators were more interested in a holistic approach that benefits students.

Concerning the sub-theme “being open to other teachers’ ideas,” women teachers indicated they talk to other teachers to learn their perspectives of how to approach classroom issues. The women teachers presented examples about how technology helped them support student learning; they suggested technology should be used to enhance teaching rather than to replace educators’ teaching. An issue discussed by the women teachers was the lack of creativity their students are experiencing due to the amount of time spent with electronic devices such as computers, phones, or tablets. The teachers noted that the students did not know what to do if they were not working with an electronic device. Another woman teacher indicated, “I don’t feel confident about using technology in the classroom. I listen to other teachers when we get together to expand my classroom activities.” The men teachers stated that classroom issues should be solved by the classroom teacher. A man teacher mentioned, “I would like to participate in professional development before I use any applications such as YouTube in the classroom,” but another teacher said, “I have been an art teacher for many

years. I don't need any applications for my classes." A man teacher explained, "I have been teaching my subject [physical education] for so many years, why do I need to change my teaching style?" The teachers indicated they used technology to prepare their classroom activities (e.g., downloading sports sheets or songs using Google) and contended technology is used to help deliver the lesson plans. Thus, the teacher's philosophies aligned with Blackstone (2003) where traditional gender roles shape women teachers to be more nurturing than men.

To understand gender differences, the researcher asked the reviewing participants about teachers' philosophy of education. The teachers reacted to the sub-theme "students' holistic development" by indicating it was difficult to comment on the theme because each teacher has her/his own teaching philosophy for delivering instruction and supporting students' learning. One teacher indicated, "I believe all teachers (men and women) want to develop students' skills holistically; however, the teaching approaches vary based on the gender and teaching experience," another stated, "All teachers are responsible to teach students," and a third teacher said, "Teachers should support students' needs to enhance academics." Regarding the second sub-theme, being open to other teachers' ideas, one teacher indicated, "Experienced men teachers are not open to other ideas...They like their ways." Three women teachers indicated that young men teachers are willing to be mentored and had learned about the institution "so they [young men teachers] learn what the reality of the teaching profession is." Another teacher mentioned, "Women are more expressive than men so I can share my experiences with the new teachers and they [young men teachers] listen."

Discussion

The answers from the women and men teachers in this study supported Jaques and Osman's (2019) findings. While the adoption of technology was not influenced by gender but by teachers' beliefs about its benefit for students (Houston, 2016; Sugar et al., 2004), discussions about the type of technology to be used in the classroom were influenced by gender. Lam (2000), Sugar et al. (2004), and Tondeur (2017) stated that teachers use a particular technology if they see its benefits. The data indicates that women teachers paid attention to their students to understand the potential impact on student outcomes and how technology supports students' instruction (Higgins & Moseley, 2001; Sugar et al., 2004). On the other hand, adoption of technology by men participants was related to training and implementation provided by the school administration (Gray, 2001). The discrepancy in the perspectives can be influenced by socialization differences (Leithwook et al., 1990; Lemasters & Roach, 2012) related to women seeing themselves as curriculum and instruction leaders and reflecting women's openness to listening to others to find new ways to deliver instruction instead of relying on professional development opportunities.

The teachers were ready to provide their perspectives, opinions, and experiences to support their answers; however, the complex relationship of the genders was revealed (England, 2001). The participants' discussion uncovered issues in the interactions between men and women when presenting arguments to support statements and persuading others to support their ideas (Nettel & Roque, 2012). The men teachers interrupted more often during the discussion, while the women teachers waited their turn to talk. Collegiality among women participants avoided confrontations, which were already part of the women teachers' way of responding in group discussions (Brunner, 2000; Namaziandos & Cakmak, 2020; Tallerico, 2000; Shakeshaft, 1989; Skrla et al., 2000; Zou & Xu, 2007). The interactions showed that experienced men teachers guided the conversation and the answers due to the control exercised over the group. This demonstrated that the value of the women's comments was impacted by the *machismo* in the Ecuadorian patriarchal system where men's roles, decisions, and opinions are considered more valuable than women's (Manna Project International, 2016). Thus, the hierarchy within the group and among the teachers supported the senior man teacher's

responses, ranking the others' answers as unimportant (Dentith et al., 2006). The power dynamics demonstrated the larger issue of socialization practices where men's voices have more power, thus limiting women's access to education and the workforce due to established patriarchal societal norms (Namdeo, 2017; Profeta, 2017; World Bank, 2018; UN Women, n.d.).

This study had some limitations. This research included one institution with only elementary school teachers participating; thus, the results are not generalizable. To be able to confirm these results, a larger number of participants and number of schools are needed. The findings merit future research into gender roles to include data about gender roles, status, and power dynamics. Moreover, teachers should be assessed about the use of technology in the classroom to understand teachers' beliefs and actual practices. Finally, observations could be utilized to evaluate teachers' in-class practices about teachers' use of technology in the classroom.

Conclusion

The results of this exploratory ethnographic case study highlight interactions between men and women teachers in a private elementary school in Ecuador. The findings about gender variations in using technology in the classroom and teachers' gender and status reflected in their argumentative exposition indicate that men teachers had a more dominant presence within the group, pushing their views on others while women teachers were expected to listen to the arguments presented. The approaches to classroom technology use differed based on gender and the purpose of the technological objective. Feminist perspectives and congruity theories recognize the differences between men and women regarding the use of technology in the classroom. The NGT technique examined decision-making processes and how these reflected established social structures favoring one gender over the other (England, 2001; Kooli & Muftah, 2020; Matthews, 2018; Quiros, 2015).

Although Ecuador has enacted a constitutional framework to support women's equality in the workplace (Constitution of the Republic of Ecuador, 2011), the results of this study indicate that the legal framework has not reached the intent manifested in the law. This finding was supported by Kooli and Muftah (2020), the results of the research including 13 countries in the Middle East/North Africa (MENA) region, indicating that women "needed more legal protections" (p. 1) to be treated equally in the workplace. To reach the "conditions of equality and equity between women and men" (Constitution of the Republic of Ecuador 2011, Article 57), the author recommends the following interventions: professional development to disseminate evidence-based practices to eliminate gender discrimination, mentoring to support and empower women, and equity training to eliminate unconscious biases in the workplace to benefit all within the educational system in Ecuador. Providing professional development, mentorship, and equity training (Kooli & Abadli, 2021) will bring fairness in gender interactions and in decision-making in the working place (Kooli, 2019). By endeavoring to deconstruct what has been socially constructed and accepted as gender role manners and activities, Ecuador can create a more equal society for future educators (Heafner, 2015; Manna Project International, 2016; Skrla, 2000). The desired changes to equalize gender roles in Ecuador will be normalized as young teachers join the teaching profession and express their willingness to work collaboratively across the gender spectrum, leading to a change in the current status quo.

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