GENDER ISSUES TOWARD GENDER-RESPONSIVE TVTEd CURRICULUM PRACTICES

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Abstract

Gender mainstreaming in technical and vocational education and training (TVET) and the labor market is a goal that is not yet fully achieved. Despite social, political, and economic changes, disparities, discrimination, and bias persist. The lack of gender responsiveness in school-based pedagogy has hindered women’s access, retention, and performance in TVET institutions. While gender imbalances exist in TVET, teachers are often unaware or unwilling to address them, implying that they lack the knowledge to deal with gender issues in practice. Thus, this study was conducted to identify the emerging gender issues that hinder gender responsiveness in technical-vocational teacher education (TVTEd) curriculum practices. The cultural-historical activity theory (CHAT) was used as the theoretical lens to generate and analyze the data. The data were generated from document analysis, interviews, and focus group discussions among teachers, students, and graduates. Having gender-responsive curriculum practice as the object of the study, findings revealed that subjects (teachers) create the main contradictions in emerging gender issues. These are characterized by gender biases, stereotyping that hinders women’s progress in technical-vocational fields, and stereotypes in resources, content, and language. The subject was followed by the contradiction within the rules, tools, community, and division of labor. The study recommends interventions to hone gender responsiveness and thereby mainstream gender in TVTEd curriculum practices. Policy-practice gaps should also be studied and gender-related research in TVET and technical-vocational teacher education should be initiated and funded.

Keywords: Gender issues; Gender-responsive; TVTEd curriculum.
1. INTRODUCTION

Education is a fundamental right of every human being (UNESCO, 2015a). International and local organizations have worked in recent years to ensure that men and women have equal access to educational opportunities and receive equitable treatment during the educational process. This is gender equality and its significance for development is widely recognized globally. According to Galacagac (2017), gender equality is a global priority. It shall remain as a critical component of the global post-2015 education agenda, as identified in World Declaration on Education for All in 1990 (UNESCO, 1993), millennium development goals in 2000 (Lomazzi et al., 2014), and UNESCO’s medium-term strategy for 2014–2021 (UNESCO, 2014) and 2022–2029 (UNESCO, 2022).

However, despite the national and international efforts to revolutionize gender equality in the education system, discrimination against women still bridges from the school to the workplace and into society. Gender disparity in the workplace has been common knowledge for more than a decade. It is evident in the percentage of participation of women in the business world (Carter & Silva, 2010; UN Women, 2013; Hega, 2003; Valente & Moreno, 2014) and more so in the TVET industry (Egun & Tibi, 2010; Mustapha et al., 2013).

Gender disparities in TVET and the labor market still exist nowadays, albeit in different forms due to social, political, and economic changes. Labor and social inequalities among males and females are maintained on multifaceted levels springing from individual choices, institutional arrangements, and social orientations. These factors result in the consistent reproduction of gender-specific career aspirations (Niemeyer & Colley, 2015). Men and women tend to self-select different technical and vocational education programs due to structural patterns and policy orientations that govern labor markets and society (Imdorf et al., 2015).

According to research, gender segregation in the labor market is reinforced by TVET because of its structures and cultures. These two are usually biased toward a particular gender, supporting the men’s or women’s image of the professions (Hegna, 2017). Moreover, the practices and discourses embedded in the social structures and policy orientations act as barriers to the participation of female minority groups in male-dominated areas. These realities result in a significantly greater reversion by females to their initial career choices than by their male counterparts. In this regard, a high degree of gender segregation may prevent students from pursuing educational paths that are not gender-typical. This is in line with the low proportion of female students who graduate with industrial specialties and work in those fields.

Because international development programs have made gender equality a priority, many countries have adopted the goal of mainstreaming gender in their national policies. Gender mainstreaming is a global strategy for advancing gender equality by examining the implications of any legislation, policy, or program for women and men. While this is true of many facets of contemporary society, the educational system is seen as the most effective means of addressing gender inequality in social systems because it
is in school that a gender-sensitive generation is honed. Students can maximize their potential when they have equal access to and benefit from educational opportunities. They will feel empowered to pursue their dreams. They will be able to contribute to and benefit from social, cultural, political, and economic development when they are on an equal footing with their peers (UNESCO, 2015a). More so, many UNESCO member states have identified teachers as central to education quality and gender equality because of their role in transmitting values and knowledge and developing human potential and skills.

In response to this international directive, the Philippine government mandated the nationwide implementation of gender mainstreaming in all public and private educational institutions through Department of Education (DepEd) Order No. 27, s. 2013 (DepEd, 2013) and the Commission on Higher Education (CHED) Memorandum Order No. 01, s. 2015 (CHED, 2015). Schools are now required to adopt gender-responsive policies, plans, programs, and strategies based on the 1987 Philippine Constitution, the Magna Carta of Women Act of 2009, and the Philippine Plan for Gender-Responsive Development 1995–2025. The DepEd order emphasized the importance of safeguarding and promoting every Filipino student’s right to a high-quality and equitable basic education in which children learn in a gender-sensitive, safe, and motivating environment. Furthermore, the CHED identified four critical areas in which higher educational institutions (HEIs) should be gender-responsive: administration, curriculum, research, and extension programs. The CHED mandated gender-responsive curricula that address gender-based discrimination, promote gender equality, and employ gender-inclusive language. Priority areas must be defined in research, and gender-specific research must be included (Galacgac, 2017). However, gender equity is still an integration rather than a mainstream in the research locale.

Given the progress in mainstreaming gender into education, the challenge is transforming institutional culture and practices to support this strategy. Since there is an overall dearth of literature on gender aspects of the TVET system (Rahman et al., 2017), the first step could be to conduct gender-responsive research to investigate and understand any equality issues that have developed and are currently present in the institutions, as well as to examine their relationship to significant academic outcomes. For instance, gender biases and stereotypes persist and are embedded in curricula, instructional methods, materials, and learning media. In the majority of cases, schools reinforce pre-existing gender ideology, stereotypes, norms, and expectations (DepEd, 2013).

Given these difficulties in academe, it is also recognized that teachers play a critical role in forming and acquiring gender-related ideas, beliefs, and thought patterns among children and adolescents. To ensure equal assistance to students in developing and achieving their goals, faculty members must be highly knowledgeable about current gender issues and their gender responsiveness. Teachers serve as role models for their students. Integrating female and male students’ experiences and needs into all educational practices enables students to challenge commonly held gender stereotypes and prejudice and overcome traditional gender relations through education. And, because the school serves as a reflection of the larger society, it is hoped that the lessons learned in the institution will transfer to students’ community membership.
Given that the primary function of the school is to instill knowledge and assist students in achieving significant academic goals, it may also be necessary for HEIs to examine how gender responsiveness in the curriculum influences learning behavior. As cited by Galaegac (2017), the literature has already established that gender bias affects academic achievement and participation (Bassi et al., 2016; Lavy & Sand, 2015; Legewie & DiPretea, 2012; Mulvey, 2009; Scantlebury, 2009; Skelton et al., 2009).

Women’s access, retention, and performance in school have all been shown to be significantly hindered by the lack of gender responsiveness in school-based pedagogy over the years, according to research findings (Chetcuti & Kioko, 2012; Christidou, 2011; Clegg, 2007; Forum for African Female Educationalists, 2018; Herz & Sperling, 2004; Kalu, 2005; McCullough, 2004). This largely explains why females choose TVET disciplines at a lower rate than males. While it is widely accepted that gender imbalances exist in TVET, it appears that teachers are frequently unaware of or unwilling to address such issues, implying that they did not graduate from teacher education programs with the knowledge necessary to address gender issues in their practice (Kalu, 2005; Forum for African Female Educationalists, 2018). Thus, this study was conducted to identify emerging gender-related issues that hinder gender-responsive curriculum practices in technical-vocational teacher education (TVTEd) programs.

The central questions that directed the study are the following:

- What emerging gender issues constrain the implementation of gender-responsive curriculum practices in technical-vocational teacher education programs?
- What gender-responsive curriculum implementation framework can be proposed based on the findings of this study?

2. CONCEPTUAL FRAMEWORK

Gender issues are contextualized by culture and history, which influence one’s perception, thinking, and behavior. This study examines the emerging gender issues between knowledge, thought, culture, and practice to better understand the curriculum implementation practices related to gender responsiveness in technical-vocational teacher education settings. As the theoretical lens for this study, the cultural-historical activity theory (CHAT) was chosen due to its ability to provide a comprehensive lens for examining various aspects of the educational setting, such as teachers’ backgrounds and perspectives, the entire institutional setting, and changes in the activity system over time (Murphy & Rodriguez-Manzanares, 2008).

CHAT is an interdisciplinary approach to human science research. It originated from Vygotsky, Leontev, and Luria’s cultural-historical psychology school (Engeström et al., 1999). It analyzes the collective activity system as an object-oriented, artifact-mediated system. As a result, the gap between the individual subject and the societal structure is bridged. As illustrated in the middle section of Figure 1, Engeström derived the second generation of CHAT from Vygotsky’s work. The triangle at the top of the
diagram is identical to the triangle proposed by Vygotsky (1978). Engeström (2005) expanded the bottom of the triangle to include rules, community, and division of labor, as well as socio-historical aspects of mediation that Vygotsky left out of his original model. Vygotsky’s research concentrated on the semiotic process relationship, whereas Engeström developed it further by placing it in the context of everyday life, that is, in situated activities.

Figure 1. Conceptual Framework

Everything that makes up an activity system, including the components of the top triangle and the socio-historical components at the bottom, was considered by Engeström to understand the system entirely. The components of an activity system can mediate change for the object and for one another. Engeström (2001) proposed that concepts and technologies mediate relationships between individuals and the object of their activity; relationships between communities and the overall object of their activity are mediated by their division of labor, and relationships between individuals and the communities to which they belong are mediated by rules and procedures, which can be explicit or implicit.

The framework developed by Vygotsky (1978) and improved by Engeström (2001) was further enhanced in this study. To better serve the purpose of the study, the CHAT was enclosed in a box where emerging issues exist in the curriculum implementation concerning gender responsiveness. These concepts were measured in the extent of the curriculum implementation in the technical-vocational teacher education program. The data gathered from this lens were used to develop the curriculum implementation framework.
Diagnostic questions were adapted from Chikunda (2014) to understand the emerging gender issues that constrain the implementation of a gender-responsive curriculum in this specific technical-vocational teacher education system. Additional questions were added to clarify the participants’ views further. The same questions were used to analyze the data.

3. METHODOLOGY

The study used a qualitative research approach with a case study design. Generally, it can be categorized as constructivist since it looked into the complexity of the views of the participants. It is also transformative because the agenda involved in the study is intended to reform the curriculum to make it more inclusive (Creswell, 2014). The qualitative research design provided the platform for how data were gathered and consolidated that made apparent the emerging gender issues in the implementation of a gender-responsive curriculum for technical-vocational teacher education.

The research was conducted at the university located in the southern Luzon of the Republic of the Philippines. Data were generated from in-depth interviews, focus group discussions, and document analysis. The study involved technical teachers, graduates, and students in a technical-vocational teacher education program. Three groups of participants were considered for data triangulation. They were also chosen purposively. Six technical teachers were selected, three of whom are females and three males. Seven graduates and twelve fourth-year students composed the second and third groups of participants, represented by males, females, and members of the LGBTQIA+ community. The number of participants varied depending on the data saturation level for each group of participants. Four focus group discussions were held, involving the groups of participants who were not interviewed individually. This was to further triangulate the data generated through interviews. Pseudonyms were assigned in the findings for data privacy and to protect the identity of the participants. No conflict of interest is involved in this study.

Document analysis was necessary because documents carry the culture, history, and context of practice and are not dependent on the whims of humans, whose cooperation is necessary for collecting good data via interviews and observation (Merriam, 2009). Targeted documents are those typically used in teaching and learning, as well as specific documents that provide curriculum guidelines as rules. This category includes syllabi, course outlines, policies, notes, books, brochures, and reports.

An interview guide adapted from Chikunda (2014) was used to gather data, with modifications made to contextualize the guide to the study’s aims. The first part of the guide elicited data on the socio-demographic profile of the participants. The second part obtained data that answered specific questions aligned with the purpose of this study. The questions identified emerging gender responsiveness issues in curriculum implementation. The questions were validated by six technical experts in curriculum and instruction, TVET, and gender. The interview guide was modified to adhere to the suggestions of the experts. It was pilot-tested on nonparticipants but with the same qualifications as the target participants; it was then revised to avoid ambiguity and to rearrange the question
sequence to smooth the flow of data gathering. The interview guide was then administered individually to the participants. Focus group discussions were also pursued to supplement the gathered data.

The interviews were designed as semi-structured. In this format, the interviewer asked predefined questions but also tried to leave freedom for the interviewees to talk about matters important to them, from their viewpoints, vis-à-vis their experiences in the curriculum. Appointments were taken from participants to conduct face-to-face, online, and phone interviews and focus group discussions. A convenient time for each participant and group was arranged to conduct the interviews. Correspondingly, the researcher used probing questions to encourage participants to provide more complete responses to the questions. Transcripts were sent back to participants for data accuracy, and the collected data provided input for developing a proposed gender-responsive curriculum implementation framework for TVTEd.

The interviews were audio-recorded and transcribed. The average interview length was 29.56 minutes, while focus group discussions lasted an average of 72.71 minutes. Transcriptions of the interviews from all participants provided the text for the initial coding and indexing of data. The transliterated texts of the interviews were subjected to content analysis to determine the fundamental concept and the emerging themes. The coded results of the interviews with the intended participants were organized using MAXQDA, a software program used as a content analysis tool designed for qualitative assessment. Inductive thematic analysis by the method of Braun and Clarke (2006) was used to process the data.

Data-generating instruments focus on the main theme: the emerging gender issues. Based on the occurrence of responses and the perspectives of the participants, contradictions emerged anchored to the elements of the activity system.

4. RESULTS

Tables 1–3 below detail the demographic profile of the study participants.

<table>
<thead>
<tr>
<th>Table 1. Gender Identity Profile of the Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant’s Category</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Technical Teachers</td>
</tr>
<tr>
<td>Graduates</td>
</tr>
<tr>
<td>Students</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

To achieve equal representation by gender, a nearly equal number of males and females participated as subjects in the study (see Table 1). The LGBTQIA+ community was represented by two participants, reflecting the small population of LGBTQIA+ individuals in the TVTEd program.
Table 2. Demographic Profile of the Participating Teachers

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Total Years of Service (University)</th>
<th>Years of Service in Industry</th>
<th>Highest Educational Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>9</td>
<td>3</td>
<td>Master’s degree</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>5</td>
<td>Master’s degree</td>
</tr>
<tr>
<td>C</td>
<td>9</td>
<td>10</td>
<td>Ph.D. level</td>
</tr>
<tr>
<td>D</td>
<td>11</td>
<td>12</td>
<td>Master’s level</td>
</tr>
<tr>
<td>E</td>
<td>10</td>
<td>2</td>
<td>Ph.D. level</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>3</td>
<td>Master’s degree</td>
</tr>
</tbody>
</table>

Table 2 shows the demographic profile of the participating teachers. It is evident in the data that, in total, the teachers possess a considerable number of years of technical experience. This is because industry experience is a prerequisite in the technical teaching profession.

Table 3. Demographic Profile of the Participating Graduates

<table>
<thead>
<tr>
<th>Graduate</th>
<th>Specialization</th>
<th>Waiting Time before Employment</th>
<th>Employment Status</th>
<th>Nature of Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Mechanical Technology</td>
<td>3 months</td>
<td>Contractual</td>
<td>Academe-based</td>
</tr>
<tr>
<td>B</td>
<td>Electronics Technology</td>
<td>1 year</td>
<td>Contractual</td>
<td>Industry-based</td>
</tr>
<tr>
<td>C</td>
<td>Automotive Technology</td>
<td>1 month</td>
<td>Contractual</td>
<td>Academe-based</td>
</tr>
<tr>
<td>D</td>
<td>Civil Technology</td>
<td>6 months</td>
<td>Contractual</td>
<td>Industry-based</td>
</tr>
<tr>
<td>E</td>
<td>Electrical Technology</td>
<td>1 year</td>
<td>Permanent</td>
<td>Academe-based</td>
</tr>
<tr>
<td>F</td>
<td>Food and Service Management</td>
<td>1 year</td>
<td>Contractual</td>
<td>Office Work</td>
</tr>
<tr>
<td>G</td>
<td>Mechanical Technology</td>
<td>1 month</td>
<td>Contractual</td>
<td>Academe-based</td>
</tr>
</tbody>
</table>

It is evident in Table 3 that most of the participating graduates are contractual employees or teachers. The nature of their employment shows the dual nature of the TVTED program, in which graduates usually choose to pursue careers in industry or academe. However, the current employment of one graduate is in neither academe nor industry. Some graduates choose careers that are not aligned with the preparation they receive in college.

In this study, the technical-vocational teacher education program in a state university was the activity system, assuming curriculum practices in technical-vocational teacher education as the object. Using diagnostic questions, issues or tensions defined by Engeström (1987) were identified and classified as contradictions in the activity system. The contradictions were arranged from most- to least-emerging gender issues within the activity system.

4.1. Contradictions

4.1.1. Contradictions within the subjects
Engeström (1987) defined contradictions as those that occur when participants in an activity system encounter multiple value systems attached to a conflict-causing element. The leading theme among the emerging issues toward gender-responsive curriculum practices in TVTEd is the subject. Subject refers to the teachers within the system and the statements presented below come from the lenses of the teachers, students, and graduates. One of the lead questions used to uncover contradictions is, “Why do you think there is a particular gender that becomes less and less interested in technical subjects as they continue their education?” Responses indicate that the majority of teachers have some comprehension of gender inequality, and they recognized that there are several considerations affecting gender-responsive curriculum practices, as shown in their statements below:

“Based on my experience, males have several work options, and women have limited options because they think that if they pursue electrical, they may be the only girl in class; when they choose welding technology, they may get filthy.”

Drew (Teacher)

“The reason why there are some courses where men dominate is because of the culture we used to live with growing up.”

Joriel (Teacher)

The students or the pre-service teachers also see technical-vocational teacher education as biased against women and favoring men. Their views, which spring from various constructs of the activity system, are as follows:

“Maybe the reason is the stereotype that this subject is for this gender; this gender is only for this course.”

Brad (Student)

“Apart from the comments of other people who are influential, they also have it in themselves that maybe they are conscious that they are the only female in the group. So, with the fear of being discriminated against, they shift courses.”

Bibi (Student)

“First, I wanted to pursue FSM [Food and Service Management] because one of my passions is cooking. But I thought if I pursue FSM, a female course, I might get discriminated against. So, I chose computer programming, instead.”

Kim (Student)

Graduates of the program have a fair share of their minimal understanding of gender inequality and the gender responsiveness of the program. When they came across the same lead question to uncover constraints, they made the following statements:

“Because it [TVTEd] is tiring, labor-intensive, then you need to stand the whole day, your body might get bruised. We all know, girls and boys, when it comes to physical prowess, men can withstand better; we can tolerate physical damage
compared to ladies.”

Ten (Graduate)

“Maybe it’s just what they think, it’s what they see, they grew up in such an environment where these courses are for men, so it’s just for men. Through the years, when they grow up, subconsciously, these beliefs were embedded in their system. Like if this is for men, I won’t go there—culture, maybe, toxic culture.”

Daniel (Graduate)

“Maybe because most women love to do office work, instead.”

Rey (Graduate)

**Table 4. Contradictions within the Subject**

<table>
<thead>
<tr>
<th>Gender-responsive Aspects</th>
<th>Evidence Indicators</th>
<th>Contradictions within the Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender biases of teachers</td>
<td>“Most of the time, when there is a classroom project, regardless of how good or bad the output is, he always received a high grade, so there is discrimination.” (teacher to male student)</td>
<td>Favoring a specific gender, which indirectly discriminates against women within the activity system</td>
</tr>
<tr>
<td></td>
<td>“We experience it sometimes; we have a class reporting. It is okay with the teacher even if we do not do the task, we still receive good marks.” (teacher to male students)</td>
<td>- Jon (Graduate)</td>
</tr>
<tr>
<td></td>
<td>- Kim (Student)</td>
<td></td>
</tr>
</tbody>
</table>

**Table 5. Contradictions within the Subject (continuation)**

<table>
<thead>
<tr>
<th>Gender-responsive Aspects</th>
<th>Evidence Indicators</th>
<th>Contradictions within the Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender-role stereotyping that hinders women’s progress in tech-voc.</td>
<td>“Female teachers will have a hard time teaching practical topics because it requires strength to lift mechanical parts when doing demonstrations.”</td>
<td>- Gender blindness</td>
</tr>
<tr>
<td></td>
<td>“I used to believe that men are better than women when it comes to skills. When it’s about construction, laying out, estimating materials, and other civil work, I think it is better if the teachers are males.”</td>
<td>- Does not see the role and importance of women in the progress of tech-voc.</td>
</tr>
<tr>
<td></td>
<td>“Men are more experienced in what they are teaching in major subjects. No matter how hard I tried to think, male teachers, are suited in major subjects because most of them are coming from industry, from experience. Based on my school, no female teacher has industry experience.”</td>
<td>- Stereotypically blames women for their physiques</td>
</tr>
<tr>
<td></td>
<td>- Joriel (Teacher)</td>
<td>- Judging that women are less skilled than men</td>
</tr>
<tr>
<td></td>
<td>- Hannah (Graduate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Horhe (Graduate)</td>
<td></td>
</tr>
</tbody>
</table>
Table 5. Contradictions within the Subject (continuation) (cont.)

<table>
<thead>
<tr>
<th>Gender-responsive Aspects</th>
<th>Evidence Indicators</th>
<th>Contradictions within the Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender stereotypes in resources, content, and language</td>
<td>“Most of the examples given during lessons are focused on males; this isolated me and my female classmates. We cannot relate to their topics.” - Aila (Student)</td>
<td>Lack of conceptual tools to make lesson examples relevant to gender-responsive pedagogies</td>
</tr>
<tr>
<td></td>
<td>“Of course, male teachers will have male-based jokes.” - Ten (Graduate)</td>
<td>Lack of pedagogical skills relevant to gender-responsive curriculum practices</td>
</tr>
<tr>
<td></td>
<td>[dirty jokes of teachers] “Discriminatory against female students. Most of the time, they just keep silent and feel left out. You cannot understand what they are talking about.” - FGD 2 (Students)</td>
<td></td>
</tr>
</tbody>
</table>

Tables 4 and 5 summarize the contradictions within the subjects that emerged during the interviews when participants were asked if they saw the value of incorporating various gender-responsive aspects into the TVTEd curriculum.

It is also evident from the data gathered that gender disparities exist among both teachers and students. However, the male-dominated TVET was considered balanced because TVTEd is a teacher education program. But in terms of teachers, males dominate the field, contributing to the perpetuation of contradictions within the subjects.

“I think, more men will enroll [if pure tech-voc.], but since the program is for teacher education, at some point, gender disparity has been neutralized.”

Hannah (Graduate)

“All male teachers in major subjects; we never had a female teacher.”

FGD 1 (Graduates)

The contradictions within the subjects reveal that though teachers recognized the existing disparity among them, they lacked the necessary tools, pedagogies, and analytic lenses to conduct a deeper analysis of the causes of these gender disparities and their implications for women studying TVTEd. They also could not combat these in their curriculum practice.

Because of the essential roles of teachers in the activity system, pre-service education is significant in maintaining gender-responsive curriculum practices. According to research, the most influential school-related factor in student achievement is an inspiring and knowledgeable teacher; therefore, it is essential to pay close attention to how teachers are trained and to provide support for both new and seasoned educators (Amorsen et al., 2017; UK Essays, 2018; Kiggundu & Nayimuli, 2009).

In addition, the low profile of TVET institutions has negatively affected the quality of TVET instructors. Most technical and vocational education teachers have
relatively low motivation because many of their aspirations and demands remain unmet. The lack of infrastructure facilities presents obstacles. Some current TVET instructors lack the hands-on, practical skills required by industry standards. This results from a training system that prioritizes theoretical knowledge over practical skills and an understanding of the working world. Therefore, it is unsurprising that the training management system is not proactive in promoting gender-responsive behavior and innovative promotional measures (International Labour Organization (ILO), n.d.).

Moreover, the general lack of female teachers and staff in technical-vocational teacher education may present an additional obstacle to female participation. In the top administration positions of the TVET system, there are practically no female managers. The presence of more female staff would likely encourage greater female student participation; nevertheless, the lack of available qualified female TVET teacher candidates remains a challenge. The presence of more female teachers would facilitate the students’ ability to communicate their problems and seek assistance for academic and personal issues. There is also a general dearth of technically trained female educators in the field. This has a negative impact on recruitment. The low number of female TVET graduates is also one of the primary causes of the sector’s severe lack of female educators (Rahman et al., 2017).

4.1.2. Contradictions within the rules

In the activity system, rules are the explicit and implicit regulations, norms, and conventions constraining gender-responsive curriculum practices (Engeström, 2001). This study checked the availability of certain policies and rules through document analysis and verified their presence through interviews and focus group discussions. Participants were asked if said rules are present in the activity system, such as campus or department policies, government regulations, a curriculum review process, dress codes, etc. Table 6 summarizes their responses.

<table>
<thead>
<tr>
<th>Gender-responsive Aspects</th>
<th>Evidence Indicators</th>
<th>Contradictions within the Rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender-related policies</td>
<td>“I encountered none at all.” - Drew (Teacher)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Law? Ah, I’m not familiar with the specific law. I know there is something. Ahem, I can’t remember any particular law.” - Joriel (Teacher)</td>
<td></td>
</tr>
<tr>
<td>School committee on gender</td>
<td>“None, I cannot observe any.” - Jen (Teacher)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>“Yes, we have a GAD office, but I can’t feel their existence.” - FGD 3 (Teachers)</td>
<td></td>
</tr>
</tbody>
</table>

- Nonengagement in gender-related policies
- Lack of knowledge of curriculum policy requirements pertaining to gender equality and inclusivity
- Lack of knowledge of certain instrumentalities within the activity system pertaining to gender
The activity system is not hindered by certain policies regarding gender responsiveness in the curriculum practices of the subjects in TVTEd. However, despite the presence of policies on gender inclusivity in the curriculum, educators have a blurred understanding of them and some are unaware of their existence. Also, most educators do not understand the existing national laws, orders, and policies specifically addressing gender issues in the curriculum. When asked if they are aware of or have incorporated the D.O. 27, s. 2013, C.M.O. 1, s. 2015, Magna Carta of Women Act of 2009, and the Philippine Plan for Gender-Responsive Development 1995–2025, their responses were the following:

“There is, but I’m not sure what law that is. I really don’t know.”

Jinky (Teacher)

“Actually, I haven’t heard of anything, but I think there is one, but why it’s not implemented? It’s not addressing gender equality, so hopefully, we can feel that law.”

Albert (Teacher)

In addition, some are aware of the existence of a committee within the activity system that monitors gender-related activities. However, they are unfamiliar with how the committee conducts assessments of gender responsiveness in the curriculum practices.

TVET institutions must develop gender-sensitive policies to ensure that women are not discriminated against through the content or structure of TVET programs and to prevent harassment of female trainees and staff. Family counseling should be included so that students and their families receive information and assistance. This will help ensure that students’ families are supportive of them (ILO, n.d.).

4.1.3. Contradictions within the tools

The study searched the responses to the diagnostic question, “What curriculum tools are used for gender-responsive curriculum practice?” for conceptual and material tools that could support gender-responsive curriculum practices in TVTEd. There is no evidence of any engagement with gender-related policies or research within the activity system. Analysis of documents (curricula, policies, and the Vision, Mission, Goals, and Objectives (VMGOs)) revealed the existence of institutionally designed tools or mechanisms for addressing gender issues. However, technical teachers are unaware of the said conceptual tools embedded in the documents. Thus, curriculum practices were based on traditional teaching methods and did not seek to address the current socio-cultural demands of the activity system.

“I’m not sure, dunno anything, policies perhaps or integration of it, but aside from that, it is not clearly imposed.”

Jen (Teacher)

“There is no specific statement or clause in the VMGOs for gender.”

Tina (Teacher)
In addition, when asked if the teachers have sufficient skills to use the available tools effectively, extracts revealed that teachers are ready enough. However, when asked if there are sufficient training, workshops, and seminars to upskill or reskill teachers, the data show that limited training is available and that it is concentrated only during team-building activities. Policy-wise, training that improves the quality of teachers will likely reduce gender discrimination in schools (Megalokonomou, 2021).

Material tools are also a contradiction within the system. Signs, bulletin boards, online websites or posts, and other instrumentalities bear no gender-related topics that support gender-responsive curriculum practices.

4.1.4. Contradictions within the community

Most participants agreed that contradictions within the community focused more on the culture of the activity system. This culture was formed by the environment, the families where the students live, and the teachers who carry certain cultural beliefs that hinder gender-responsive curriculum practices. According to ILO (n.d.), the culture of acceptance is one of the underlying structural factors that prevent society from recognizing women’s equal rights in both private and public spheres. When asked about the negative impact of culture on the implementation of gender-responsive curriculum practices, they made the following arguments:

“Generally, we have a traditional culture, so mostly, for me, if culture is very traditional, [it’s] not so egalitarian. Maybe, since it’s traditional, girls and boys will succumb to their traditional roles, as well.”

Ten (Graduate)

“Of course, if the culture you grow up with is very patriarchal, eh, the people living within that culture will view that men are stronger. So, culture affects the gender responsiveness.”

Daniel (Graduate)

The parents, including immediate relatives, also perpetuated contradictions within the community.

“Since my course [automotive] was discriminated against by my relatives, they argued that since I’m a woman, I should have enrolled in courses intended for women. So, they think I am in living with a wrong decision because I am studying a field that is not suited to my gender.”

Meann (Graduate)

Moreover, the teachers aggravated the contradictions because of the lack of conceptual/material tools, training, seminars, workshops, nonengagement of gender-related policies, and other contradictions mentioned above. Their roles as the main
subjects in the activity system contributed to the emerging gender issues that hinder gender-responsive curriculum practices in TVTEd.

These perceptions and trends in community thinking regarding gender roles and stereotypes on what women and girls are capable of and what they should and should not do, must be clearly understood. These should be analyzed without any bias for any action to be sufficiently effective in redressing the gender imbalance in TVET. In a society that has ingrained these views and values in its traditions, gender mainstreaming poses a formidable obstacle (ILO, n.d.).

4.1.5. Contradictions within the division of labor

In terms of the division of labor, contradictions were present in the TVTEd, especially in male-dominant specializations like automotive and mechanical technology. The main consideration in the division of labor is the physique of women. According to Cifre et al. (2013), as cited by Pregoner et al. (2020), there is a significant direct correlation between the characteristics of men and the physical difficulty of their jobs. Since men are typically muscular, there is a notion that their work can be physically demanding. Also, the teachers characterized women as weaker compared to male students.

“There are tasks that we need to consider the physical strength of the ladies. Most tasks are physically demanding, [so] that you cannot expect women to perform well.”

Albert (Teacher)

“So there really is a lot of discrimination. For example, during OJT [on-the-job training], they do not accept female applicants. You cannot be accepted on construction sites if you are a female. They will say, ‘you’re a woman, you cannot do field work.’ That’s why most of the time, female applicants do office work, instead.”

Tina (Teacher)

“Ladies were brought to offices; men were positioned in the production area. They feel disadvantaged because they can learn more in the production area. They have been robbed of the opportunity to learn simply because they are women.”

FGD 3 (Teachers)

These issues in the division of labor are reaching the industry (ILO, n.d.). And the classified discrimination on physical abilities is even aggravated. This is because there is a gender gap in the job market, with men dominating the attitudes, leadership, communication, interpersonal, problem-solving, knowledge, and emotional intelligence levels (Ismail et al., 2018). Factors like these in male-dominated technical-vocational fields discriminate against women and even lower their participation in the industry.

4.1.6. Contradictions within the objects

Since the object of this study is gender-responsive curriculum practice, contradictions within the object also sprung from the subjects or the teachers. The gender-
responsive pedagogies were not primarily achieved because of the contradictions discussed above concerning the subjects. These include practices that perpetuate gender discrimination and biases like integrating inappropriate examples (dirty jokes) in the lessons, favors toward men, and judgment on women’s physical capabilities, among others.

In addition, the teachers’ lack of gender awareness prevented them from implementing gender-responsive pedagogies in their curriculum. This results in a conflict between the subject and the purpose of gender-responsive curriculum practice. Likewise, there were issues between other elements of the activity system, which ultimately manifested as a contradiction between the subject and object. For instance, the tension between syllabus documents (material tools) indicating the need to include gender issues in the curriculum and the subject’s lack of conceptual tools to translate this into curriculum practices, results in the subject’s inability to implement gender-responsive pedagogies.

4.2. Gender-Responsive Curriculum Implementation (GReCI) Framework

Gender-related issues are emerging in the curriculum practices of the technical-vocational teacher education program. These issues were identified in this study using cultural-historical activity theory, and the same theory was used to develop an implementation framework (Figure 2). The framework in Figure 2 is arranged in a circle to show the continuity of the curriculum implementation process. Though the framework is focused on implementation, it is influenced by other curriculum development processes such as planning, designing, and evaluating. These influences were indirectly embedded within the elements of the framework. Elements refer to the identified contradictions using the CHAT lens. These are the subject, rules, tools, community, division of labor, and object, respectively. The elements are equally important in the implementation but were arranged from the most to the least emerging gender issues in the context of the research locale.

Figure 2. GReCI framework
In the activity system of the technical-vocational teacher education program, the subject refers to the technical teachers/professors; rules are the customary laws, customs, conventions, and policies; tools are the conceptual and material curriculum tools such as syllabi, theories, signs, facilities, seminars, etc.; community refers to the people and culture within the TVTEd program; the division of labor is the identifiable boundaries in the curriculum activities where each gender should never be segregated; and object refers to the overall curriculum practices.

The middle triangle connects the elements. The triangle was adapted from the second-generation CHAT of Engeström (2005), which was a revision of the work of Vygotsky. It is clearly shown in the triangle that each element is connected with every other element in the activity system. This complex relationship among elements is intertwined by the curriculum practices that develop contradictions. However, to maintain gender responsiveness, factors must be considered per element based on the findings of this study. These factors are categorized per element as follows:

- **Subject.** Factors to avoid in maintaining inclusivity in the system are gender biases among teachers, gender-role stereotyping that hinders women’s progress in tech-vocational fields, and gender stereotypes in resources, content, and language.

- **Rules.** Gender-related policies are an important driving force in keeping the balance, which can be facilitated well if planned, monitored, and evaluated by the school committee of gender or the Gender and Development (GAD) office.

- **Tools.** The conceptual tools identified include policies within the activity system. These coincide with rules since interactions overlap within the elements. Training, workshops, and seminars are also relevant tools to equip stakeholders with gender-responsive pedagogies and practices, especially teachers. Material tools were also identified as contributory factors. Facilities, signs, bulletin boards, online websites and posts, and other instrumentalities that bear gender-responsive concerns can help maintain inclusivity.

- **Community.** Community centers on the culture of the stakeholders of the activity system. These stakeholders include administrators, teaching and non-teaching staff, students, parents, and the industry, among others. The community serves as the environment or ecosystem where the activity system is functioning. The different stakeholders involved in the curriculum processes of the TVTEd program perpetuate the emerging gender issues, as evident in the findings of this study. But with the use of the curriculum implementation framework, the same community will then contribute to the formation of gender-responsive curriculum practices.
Division of Labor. There are specializations in the activity system that are male-dominated. Though females are enrolled in these specializations, boundaries exist in the curriculum activities that hinder them from participating. These divisions are influenced by the interaction of the subjects due to physical limitations stereotyped against women. Thus, to maintain gender equity, these divisions should be bridged.

Object. The object of the activity system is the curriculum practice. The subject influences most contradictions in the object because of pedagogies that are not gender-responsive. Thus, other elements also carry certain contradictions within the object. These contradictions can only be addressed if all other elements contribute to the gender responsiveness of the curriculum.

The main outcome of the framework is the gender-responsive TVTEd curriculum practice, which were represented by the middle sphere, the framework’s center. All the elements surrounding the sphere contribute to maintaining the balance and flow of the processes of curriculum implementation, thus helping make the curriculum practices gender-responsive.

5. DISCUSSION

Emerging gender issues in the technical-vocational teacher education activity system have been identified in this study using the CHAT framework. These issues sprang from various elements: subject, rules, tools, community, division of labor, and object, consecutively from the most to the least emerging. Contradictions within the activity system uncovered in interviews, focus group discussions, and document analysis. These contradictions were thematically analyzed and each element has contributed to the factors that hinder gender-responsive curriculum practices in TVTEd.

The themes arising within the subject involved gender biases of teachers, gender-role stereotyping that hinders women’s progress in technical-vocational fields, and gender stereotypes in resources, content, and language. Technical teachers in the activity system favored a specific gender, males, and this directly discriminates against women. Gender blindness has also been a characteristic among teachers, in which they do not see the role and importance of women in the progress of TVET. Moreover, they stereotypically blame women for their physiques and judge women as less skilled than men. They also lack conceptual tools to make lesson examples relevant to gender-responsive pedagogies. This lack of pedagogical skills affects their gender responsiveness.

In male-dominated technical-vocational fields, teachers perpetuate gender discrimination and bias. According to Megalokonomou (2021), teachers’ gender biases are persistent. A teacher biased against females in one class will likely remain biased seven or eight years later. Using student attendance data, the study found that students with gender-biased teachers are more likely to miss class and be expelled. Students with biased teachers may be less motivated to attend class or to be engaged in learning.
Due to teachers’ biases, women also experience a demoralizing effect that diminishes their self-confidence, belief in their abilities, and outlook for success. It appears that the gender biases of teachers have longer-term consequences for women, affecting their career prospects and earnings. According to Megalokonomou (2021), the most effective teachers have gender-neutral attitudes. This suggests that ineffective teachers can harm their students in two ways, first by being ineffective, and then by discriminating against one gender.

Regarding contradictions within the rules, the emerging gender issues were the gender-related policies and the school committee on gender. Though there are existing policies and committees, many teachers are not aware, and though some are aware, they do not experience or feel its existence. This nonengagement in gender-related policies comes from the lack of knowledge of the curriculum policy requirements about gender equality and inclusivity. This also hinders certain instrumentalities that can only be an advantage for the teacher if they are well-oriented.

When it comes to tools, conceptual and material curriculum tools were surveyed among participants. From policies to VMGOs, signs to online posts, syllabi to instructional materials, seminars, workshops, and training reflect the advent of 21st-century thinking on gender inclusivity. However, the small number of seminars, the limited training within the activity system, and the nonengagement of teachers in gender-related policies, mean that curriculum practices remain traditional when viewed from the perspective of current socio-cultural demands. Adding to this dilemma is the lack of gender-related research that can serve as input for policy formulations and other instrumentalities that can mainstream gender in the curriculum.

Moreover, their gender responsiveness is focused only on integration and not gender mainstreaming. Putting specific topics in the lessons or conducting seminars, workshops, and training related to gender are all on the façade of gender responsiveness. This idea of integration has been added to the emerging issues that put gender inclusivity in a box and fail to promote gender-responsive curriculum practices.

The community is drawing much concern about the activity system. It is characterized by the culture of the school, the teachers, and the community where the students live. Most of the participants believe that the existing culture has a negative impact on gender-responsive curriculum practices. Parents and relatives of students show biases and discriminate against women enrolled in TVTEd, especially in the automotive, mechanical, and electrical technology fields. Because of contradictions within the subject (teachers) and other elements, the community developed contradictions of its own. These contradictions also perpetuate the issues.

The division of labor is also a major concern. Women in the activity system were considered less skilled and weaker in physical ability. In automotive and mechanical technology majors, laboratory tasks were segregated based on physical involvement – these isolated women from reaching their full potential because of judgments based on gender. Most of the women were assigned to offices and computer work. These jobs put
them in a situation where they are disadvantaged and not given equal opportunities with men. This contradiction is not only within the activity system; other participants recognized that it also extends to industry, thus sustaining the contradictions and perpetuating the issues.

However, the abovementioned issues can also be springboards for development. Because of the findings of this study, a curriculum implementation framework was developed to help TVET and technical-vocational teacher education institutions become gender-responsive in their curriculum practices. Recommended solutions also emerged from the gathered data, and the views of the participants within the activity system are a good start toward gender responsiveness.

Training, seminars, and workshops themed on gender can help equip teachers and students in the activity system and their parents to be aware of gender equity and inclusivity. Awareness is the start of a much better gender mainstreaming in the long run. These initiatives can also train teachers on the technicalities, such as modifying syllabi, applying appropriate gender-responsive pedagogies, and mainstreaming gender inclusivity in the curriculum. Various stakeholders, such as local government units, non-governmental and governmental organizations, parents, and industry, can be tapped for gender-related programs and project collaboration. They can have a fair share of the budget for training, and their perspective will help create a holistic approach to dealing with the issues. To specifically address gender equality in education, the UNESCO Strategy for Gender Equality in and through Education (2019–2025) focuses on gender-equal, system-wide transformation and supports targeted action for girls’ and women’s empowerment through education across three priority areas: better data, especially sex-disaggregated data; better laws, policies, and planning; and better practices – teachers using gender-responsive pedagogical practices and textbooks (UNESCO, 2022).

The technical-vocational industry can be a good asset in alleviating the contradictions if the university maintains a gender-focused agenda in its partnerships. A collaborative effort, as well, from different levels of the education system, elementary, secondary, TVET, and tertiary education, can better highlight gender equality by writing a harmonious curriculum. Curriculum writers should view gender responsiveness in the curriculum as something that starts from the foundation days of the learners.

Policy creation based on research and extension activities is also a venue for addressing emerging gender issues. Sound policy can be drawn from any part of the curriculum development processes (planning, designing, developing, implementing, monitoring, and evaluating) when rooted in research and extension activities that help address gender discrimination and bias in tech-voc.

In conclusion, teachers sit strategically in the curriculum implementation. They have the authority to link curriculum to practice. The gaps and issues emerging between curriculum and instruction can be alleviated and addressed by teachers. This is only possible if the teachers are empowered, trained, informed, and gender-responsive. Without the preparation and tooling, no matter how gender-responsive the curriculum is,
teachers will still just perpetuate inequality. Thus, investing in teachers is a prerequisite for the transformative power of education (UNESCO, 2015b).

6. CONCLUSION AND RECOMMENDATIONS

The results of the study indicate that even if teachers in the activity system are aware of gender inequalities as they relate to disparity, they are unable to systematically engage with gender issues in the curriculum, thereby limiting the agential potential of future teachers to engage with gendered issues in their curriculum practices. This is despite the availability of numerous gender-related policies with the potential to transform the curriculum.

Also, the subjects favor males, which indirectly discriminates against women. Gender blindness also contributes to not seeing the role and importance of women in the progress of tech-voc. The subjects stereotypically blame women for their physique and judge them as having lesser skills than men. Emerging gender issues also include the lack of conceptual tools to make lessons relevant to gender-responsive pedagogies. This leads to the lack of pedagogical skills relevant to gender-responsive curriculum practice. In addition, the nonengagement in gender-related policies and lack of knowledge of curriculum policy requirements pertaining to gender equality and inclusivity also contribute to the contradictions in rules. Moreover, the patriarchal culture of the subjects, parents, and the environment also perpetuates gender gaps in the TVTEd activity system.

From the findings of the study, an implementation framework for gender-responsive curriculum practices was developed. This framework centers on the processes involved in curriculum development and the interconnection of the elements with the contradictions mentioned above.

With the pressing concerns revealed in the findings of this study, it is recommended that interventions in the forms of programs, projects, seminars, workshops, and training should be given priority among technical in-service and pre-service teachers to hone awareness and thereby mainstream gender responsiveness in the curriculum practices. Policy-practice gaps should also be studied to supplement better the creation of sound policy that will mediate the relations between the subjects and the community toward transforming curriculum practices. The results of the study can be baseline data in crafting development plans for the university toward gender mainstreaming. In addition, this can lead to the revision or updating of university GAD policies and processes to ensure the promotion of equal opportunity for both men and women that complies with GAD laws and Equal Opportunity Policy. Also, gender-related research in TVET and technical-vocational teacher education should be initiated and funded to address socio-cultural issues such as gender inequality and development.

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