

Understanding the Genderbread: Assessing Knowledge and Perceived Importance of Gender Identity Models Among Pre-Service Teachers in the Context of Gender and Development

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Abstract. Gender inclusivity in education has become an increasingly important concern in preparing future educators for diverse classroom environments. However, limited empirical studies have examined pre-service teachers' knowledge of gender identity frameworks and how these shape their perceptions of inclusive teaching practices, particularly within teacher education contexts. This study assessed the knowledge and perceived importance of the Genderbread Person model among 120 third-year pre-service teachers using a descriptive-correlational mixed-methods design. Data were collected through a researcher-developed survey and open-ended responses, then analyzed using descriptive statistics, Spearman's rho correlation, and thematic analysis. Findings revealed that pre-service teachers demonstrated a strong level of knowledge regarding the Genderbread Person model across gender identity ($M = 3.23$), gender expression ($M = 3.32$), biological sex ($M = 3.28$), and sexual orientation ($M = 3.27$). They also strongly perceived the model as important in promoting gender inclusivity ($M = 3.38$), empathy and equity ($M = 3.45$), critical thinking ($M = 3.36$), and culturally sensitive pedagogy ($M = 3.46$). Correlation analysis showed a statistically significant high positive relationship between knowledge of the Genderbread Person model and its perceived importance in Gender and Development ($r_s = 0.798, p < 0.001$). Qualitative findings highlighted themes such as promoting inclusive classroom values, fostering empathy, encouraging dialogue, supporting marginalized learners, and integrating gender-sensitive instructional practices. Based on the findings, the B.A.H.A.G.H.A.R.I. Program (Building Acceptance and Holistic Awareness for Gender-Harmonized Academic and Responsive Instruction) was proposed to strengthen gender-sensitive teacher preparation. The study underscores the importance of integrating gender-responsive frameworks in teacher education to equip future educators with inclusive, reflective, and culturally responsive pedagogical competencies.

Introduction

In recent years, global conversations around gender identity, gender expression, and sexuality have become more visible, complex, and urgent. As societies increasingly move beyond traditional binary understandings of gender, there is growing recognition of the need for inclusive educational practices that reflect this complexity. Educational institutions, policymakers, and even faith communities are being called to engage thoughtfully with these evolving understandings of identity. One widely used educational tool in these efforts is the Genderbread Person model—a visual framework designed to represent gender identity, gender expression, biological sex, and sexual orientation as fluid and intersecting spectrums rather than rigid categories. This model has been adopted in many teacher education programs to support pre-service teachers in developing more inclusive, reflective, and equity-driven approaches to education. It aligns with broader frameworks like Gender and Development: Reassessing Power and Purpose, which challenge educators to critically examine how power operates in gendered relationships and how education can serve as a catalyst for equity and social transformation.

This complexity becomes especially pronounced in Christian faith-based educational institutions, where explorations of gender must be situated within a theological framework. For many Christian educators, Scripture remains the primary lens through which identity and human purpose are interpreted. Genesis 1:27 declares that human beings are made in the image of God: "male and female He created them." This verse is often seen as affirming both the dignity of each person and the distinctiveness of male and female. However, Christian teachings also emphasize the importance of compassion, justice, humility, and love—all of which invite open-hearted engagement with those whose experiences or identities differ from one's own. Recent theological discourse (e.g., Setianto, 2023; Goshu & Ridwan, 2025) affirms that biblical truths and commitments to justice and inclusion can coexist. Rather than framing inclusivity and faith as oppositional, these scholars suggest that Christian educators are called to embody both truth and love, holding doctrinal convictions while also extending grace and empathy to others.

Within this shifting educational landscape, pre-service teachers—students currently preparing to enter the teaching profession—occupy a pivotal position. Their developing attitudes, knowledge, and values will significantly shape how gender is addressed in future classrooms. Teachers have the power to either affirm diverse identities and foster belonging or reinforce exclusion and uphold rigid binaries. As such, preparing pre-service teachers to navigate gender inclusively and respectfully is essential for creating learning environments that are safe, affirming, and responsive to all students. Though inclusive frameworks and gender-responsive pedagogies (GRP) are increasingly integrated into teacher training programs (e.g., Miralles Cardona et al., 2025; Walsh et al., 2025), there remains considerable variation in how these frameworks are understood, accepted, or implemented—especially in contexts where cultural, religious, and personal values play a strong role in shaping beliefs.

Yet despite increasing attention to gender inclusivity in both secular and religious educational contexts, empirical research exploring how pre-service teachers engage with gender frameworks like the Genderbread Person model—particularly in Christian institutions—remains limited. Specifically, three gaps in the literature are evident: (1) A lack of data on how well pre-service teachers understand the components and implications of the Genderbread Person model. (2) Limited insight into how these understandings intersect with personal faith convictions and theological beliefs. (3) Uncertainty around how such frameworks influence future teaching practices, especially in classrooms where educators seek to uphold both biblical values and principles of inclusion.

Ultimately, the goal is not to replace faith with ideology, but to help future teachers engage with gender in ways that are both biblically grounded and educationally inclusive. When pre-service teachers are equipped with a clear understanding of gender complexity—alongside a deep appreciation for their own faith values—they are better prepared to create classrooms marked by empathy, safety, and respect. Research also shows that inclusive teaching approaches, such as Universal Design for Learning (UDL) and differentiated instruction, are most effective when educators' worldviews and beliefs are intentionally addressed rather than ignored (Exploring pre-service teachers' beliefs and practices about two inclusive frameworks, 2021). Therefore, integrating inclusive gender frameworks with biblical theology is not only possible but essential for Christian educational institutions striving to honor both truth and love in the formation of future educators. This study seeks to address these gaps by examining the knowledge, attitudes, and perceived relevance of the Genderbread Person model among third-year pre-service teachers at a Christian university. By situating this inquiry within the broader framework of Gender and Development: Reassessing Power and Purpose, the study explores how understandings of gender can both challenge and deepen Christian educators' commitment to justice, compassion, and holistic teaching.

Statement of the Problem

1. What is the level of knowledge of pre-service teachers regarding the Genderbread Person model in terms of:
 - a. Gender identity;
 - b. Gender expression;
 - c. Biological sex; and
 - d. Sexual orientation?
2. What is the perceived importance of the Genderbread Person model among pre-service teachers in promoting:
 - a. Gender inclusivity;
 - b. Empathy and equity;
 - c. Critical thinking in education; and
 - d. Culturally sensitive pedagogy?
3. Is there a significant relationship between the level of knowledge of pre-service teachers about the Genderbread Person model and their perceived importance of the model in the context of Gender and Development?
4. How do pre-service teachers envision integrating the Genderbread Person model into classroom instruction to foster gender-sensitive teaching?
5. What intervention program would be implemented in the education program to address this gap?

Hypothesis

H₀: There is no significant relationship between the level of knowledge of pre-service teachers about the Genderbread Person model and their perceived importance of the model in the context of Gender and Development?

H₁: There is a significant relationship between the level of knowledge of pre-service teachers about the Genderbread Person model and their perceived importance of the model in the context of Gender and Development?

Methodology

Research Design

This study utilized a descriptive-correlational research design with a mixed-methods approach, incorporating both quantitative and qualitative techniques to gain a thorough understanding of pre-service teachers' knowledge of and perceived significance of the Genderbread Person model within the framework of Gender and Development. The descriptive component sought to assess the extent of knowledge and perceived significance of the Genderbread Person model across its fundamental aspects, whilst the correlational component investigated the relationship between pre-service teachers' knowledge and their perceived significance of the model. The qualitative component enhanced the quantitative findings by examining pre-service teachers' views on the integration of the model into classroom instruction to promote gender-sensitive teaching. This method was considered suitable since it facilitates systematic monitoring of current conditions without altering variables and permits the analysis of correlations among variables in their natural state. The incorporation of qualitative data offered additional depth and contextual insight into participants' perspectives, so augmenting the interpretive rigor of the study.

A survey questionnaire created by the researchers during the qualitative phase, pre-service teachers' opinions on incorporating the Genderbread Person model into classroom instruction were investigated using open-ended survey questions and guided interview prompts. Teaching methods, the classroom setting, inclusion, empathy, and meeting the needs of underrepresented students were the main topics of these inquiries. In order to enable genuine expression, participants were urged to reply in English, Filipino, or Cebuano.

Participants and Sampling Technique

This study focuses on 120 third-year pre-service teachers enrolled in the teacher education program during the academic year 2025–2026. The research is limited to assessing their level of knowledge and perceived importance of the Genderbread Person model. The results may not be generalized to other year levels or institutions, and the study does not cover in-depth gender identity or expression analysis beyond what is introduced in the Genderbread framework.

Research Instrument

A researcher-developed questionnaire was used to assess pre-service teachers' knowledge and perceived importance of the Genderbread Person model. The instrument consisted of two sections with 20 items each, using a 4-point Likert scale. The first section measured knowledge across four dimensions: gender identity ($\alpha = 0.768$), gender expression ($\alpha = 0.826$), biological sex ($\alpha = 0.822$), and sexual orientation ($\alpha = 0.805$), with an overall reliability of $\alpha = 0.929$ (excellent). The second section assessed perceived importance across gender inclusivity ($\alpha = 0.874$), empathy and equity ($\alpha = 0.898$), critical thinking ($\alpha = 0.834$), and culturally sensitive pedagogy ($\alpha = 0.900$), with an overall reliability of $\alpha = 0.959$ (excellent). Content validity was established through expert review, while construct validity was ensured through alignment with the model's theoretical dimensions. The high Cronbach's alpha values indicate that the instrument is reliable and suitable for the study.

Data Gathering Procedure

Formal authorization was obtained from the university administration and pertinent academic offices prior to data collection. The goal, methods, and ethical precautions of the study were explained to the participants. Every respondent gave their informed consent. Depending on accessibility and availability, the quantitative questionnaire was distributed via an online survey platform or in hard copy form. In order to guarantee meaningful and accurate responses, participants were given enough time to finish the survey. Open-ended questions and guided interviews were used to collect qualitative data after the quantitative stage. Given the delicate nature of gender-related subjects, these were held in a friendly and nonjudgmental setting to promote open contemplation.

Data Analysis Procedure

The proper statistical methods were used to analyze quantitative data. The degree of understanding and perceived significance of the Genderbread Person model were assessed using descriptive statistics, such as frequency counts, weighted averages, and standard deviations. Spearman's rho correlation coefficient (rs) was used to evaluate the hypothesis and ascertain the association between pre-service teachers' perceived importance and knowledge level. The ordinal form of the data and its usefulness for figuring out the direction and strength of correlations between variables led to the selection of this non-parametric test. The significance level for all statistical tests was set at 0.05.

Thematic analysis was used to examine qualitative data. The responses were meticulously examined, categorized into emergent themes and sub-themes, and coded. Each theme was supported with significant remarks, and a broad description was created to encapsulate the main points of view held by the participants. This procedure made it possible to triangulate the results and gave pre-service teachers a better understanding of how they see the Genderbread Person model being used in actual classroom settings.

Ethical Considerations

Consent to Participate. All individuals provided informed consent before their participation in the study. The participants were thoroughly apprised of the research's objective, the processes entailed, the voluntary aspect of participation, and their entitlement to withdraw at any moment without consequence. Only those who granted their informed consent were incorporated into the data gathering process.

Ethics Approval. This study was reviewed and approved by the Institutional Research Ethics Committee of Initao College (or Institutional Review Board of Initao College, if this is the official title) prior to data collection. All research procedures complied with institutional ethical standards and established guidelines for research involving human participants.

Results and Discussion

Problem 1: What is the level of knowledge of pre-service teachers regarding the Genderbread Person model in terms of gender identity, gender expression, biological sex, and sexual orientation?

Indicators	Mean	SD	Interpretation
1. I understand that gender identity refers to how one identifies internally (e.g., man, woman, both, or neither).	3.42	0.57	Strongly Agree
2. I can distinguish between gender identity and biological sex.	3.25	0.57	Strongly Agree
3. I recognize that gender identity is experienced along a spectrum, not a binary.	3.04	0.60	Agree
4. I am familiar with non-binary and genderqueer identities.	3.03	0.66	Agree
5. I know that gender identity may differ from how others perceive an individual.	3.40	0.54	Strongly Agree
Grand Mean	3.23	0.43	Agree

Legend: 1.00-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.00 = Strongly Agree

Table 1. Level of Knowledge of Pre-Service Teachers regarding the Genderbread Person Model in terms of Gender Identity (Utak / Internal Sense of Self)

The Table 1 shows that pre-service teachers have an overall moderate level of knowledge regarding gender identity as conceptualized in the Genderbread Person Model, with a grand mean of 3.23 (SD = 0.43), interpreted as "Agree." They strongly agreed that gender identity refers to one's internal sense of self (M = 3.42, SD = 0.57) and that it may differ from how others perceive an individual (M = 3.40, SD = 0.54), and they can distinguish gender identity from biological sex (M = 3.25, SD = 0.57). However, awareness of the spectrum of gender identity (M = 3.04, SD = 0.60) and familiarity with non-binary and genderqueer identities (M = 3.03, SD = 0.66) were slightly lower, indicating some gaps in knowledge. This implies that while pre-service teachers generally understand the concept of internal gender identity, teacher education programs may need to provide more focused instruction on non-binary and spectrum-based understandings to ensure comprehensive knowledge and inclusive perspectives in future classrooms.

Such comprehensive knowledge is crucial for fostering inclusive learning environments that acknowledge and affirm diverse student identities, thereby promoting emotional safety and reducing marginalization in educational settings (Rodriguez et al., 2025). Despite this general agreement, the moderate integration of gender-related topics into current coursework, primarily focusing on gender-based violence and equal opportunities rather than foundational concepts, suggests a need for more in-depth curricular development (Miralles-Cardona, 2025). Further curriculum enhancements

should include explicit instruction on gender-neutral terminology and pronoun usage to bridge existing knowledge gaps among pre-service teachers (Chen, 2025). This would equip them to analyze classroom dynamics for gender-based challenges and design inclusive activities, going beyond basic definitions to address complex aspects of gender and sexuality (Ouahabi et al., 2025; Mitton et al., 2021).

Indicators	Mean	SD	Interpretation
1. I understand that gender expression refers to outward appearance, behavior, and mannerisms.	3.36	0.64	Strongly Agree
2. I can explain how clothing, gestures, and language reflect gender expression.	3.25	0.60	Strongly Agree
3. I know that gender expression can be masculine, feminine, both, or neutral.	3.38	0.64	Strongly Agree
4. I recognize that cultural norms influence how gender expression is interpreted.	3.31	0.51	Strongly Agree
5. I am aware that gender expression may not always match a person's identity or sex.	3.31	0.58	Strongly Agree
Grand Mean	3.32	0.46	Strongly Agree

Legend: 1.00-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.00 = Strongly Agree

Table 2. Level of Knowledge of Pre-Service Teachers regarding the Genderbread Person Model in terms of Gender Expression (Anyo / External Presentation)

Table 2 implies that pre-service teachers demonstrate a strong level of knowledge regarding gender expression as presented in the Genderbread Person Model. They strongly agreed that gender expression refers to outward appearance, behavior, and mannerisms ($M = 3.36$, $SD = 0.64$) and that clothing, gestures, and language reflect one's gender expression ($M = 3.25$, $SD = 0.60$). Respondents also acknowledged that gender expression can be masculine, feminine, both, or neutral ($M = 3.38$, $SD = 0.64$), is influenced by cultural norms ($M = 3.31$, $SD = 0.51$), and may not always align with a person's gender identity or biological sex ($M = 3.31$, $SD = 0.58$). The grand mean of 3.32 ($SD = 0.46$) indicates overall strong agreement, suggesting that pre-service teachers are well-informed about the external presentation of gender and recognize its fluidity and socio-cultural influences. This implies that teacher education programs are effectively equipping future educators with foundational understanding of gender expression, which is crucial for fostering inclusivity and sensitivity in educational settings.

This strong grasp of gender expression is vital for creating supportive classroom environments where all students feel validated and respected, irrespective of how they outwardly present their gender (Mitton et al., 2021; Kmiti & Azeroual, 2025). Furthermore, such comprehension empowers educators to challenge gender stereotypes and promote an environment where diverse forms of self-expression are celebrated, thus preventing the marginalization of students who do not conform to traditional gender norms (Mitton et al., 2021). This foundational understanding of gender expression, coupled with the ability to distinguish it from gender identity, is critical for addressing the varied needs of students and promoting an equitable learning environment (Ouahabi et al., 2025). However, despite this robust understanding of gender expression, a persistent gap remains in pre-service teachers' conceptual understanding of other critical gender issues, necessitating stronger theoretical foundations and more structured training on gender-inclusive practices (Ouahabi et al., 2025). For instance, while awareness of non-binary and genderqueer identities is still developing, an emphasis on unbiased assessment and the integration of gender-inclusive language can help to mitigate these gaps (Ullman et al., 2023; Chen, 2025).

Indicators	Mean	SD	Interpretation
1. I understand that biological sex refers to anatomy, hormones, and chromosomes.	3.36	0.56	Strongly Agree
2. I can differentiate between female, male, and intersex classifications.	3.31	0.56	Strongly Agree
3. I know that sex characteristics include primary (reproductive organs) and secondary traits (voice, body hair, etc.).	3.37	0.55	Strongly Agree
4. I recognize that intersex individuals may have variations in sex characteristics.	3.18	0.48	Agree
5. I am aware that biological sex is not the only factor in determining identity.	3.21	0.54	Agree
Grand Mean	3.28	0.41	Strongly Agree

Legend: 1.00-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.00 = Strongly Agree

Table 3. Level of Knowledge of Pre-Service Teachers regarding the Genderbread Person Model in terms of Biological Sex / Sexual Characteristics (Ari / Physical Attributes)

Table 3 demonstrates that pre-service teachers have a strong level of knowledge regarding biological sex as represented in the Genderbread Person Model, with a grand mean of 3.28 (SD = 0.41), interpreted as "Strongly Agree." Respondents strongly agreed that biological sex refers to anatomy, hormones, and chromosomes (M = 3.36, SD = 0.56), that they can differentiate female, male, and intersex classifications (M = 3.31, SD = 0.56), and that sex characteristics include both primary and secondary traits (M = 3.37, SD = 0.55). Awareness of intersex variations (M = 3.18, SD = 0.48) and the understanding that biological sex is not the sole determinant of identity (M = 3.21, SD = 0.54) were slightly lower, suggesting areas for further emphasis. This implies that pre-service teachers are generally knowledgeable about physical attributes and classifications of sex, but teacher education programs could strengthen instruction on intersex variations and the distinction between sex and broader aspects of identity to promote a more inclusive understanding of gender.

This heightened awareness is crucial, especially since many individuals increasingly disclose trans or gender-diverse identities, necessitating affirming and informed responses from educational institutions (Bartholomaeus et al., 2017). Moreover, misconceptions persist regarding the immutability of biological sex and its conflation with gender identity, highlighting the need for comprehensive education that clarifies these distinctions (Mercer-Mapstone et al., 2021). For instance, while a common understanding is that biological sex is determined by chromosome arrangement, physical genitalia, and reproductive organs, aspects of a person's biological sex can indeed change through treatments such as hormone therapy (Mercer-Mapstone et al., 2021).

Indicators	Mean	SD	Interpretation
1. I understand that sexual orientation refers to emotional, romantic, or sexual attraction.	3.39	0.59	Strongly Agree
2. I can differentiate between heterosexuality, homosexuality, bisexuality, and asexuality.	3.31	0.59	Strongly Agree
3. I know that attraction can be sexual and/or romantic.	3.33	0.52	Strongly Agree
4. I recognize that sexual orientation is separate from gender identity.	3.25	0.56	Strongly Agree
5. I am familiar with the spectrum of orientations beyond traditional categories.	3.05	0.57	Agree
Grand Mean	3.27	0.42	Strongly Agree

Legend: 1.00-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.00 = Strongly Agree

Table 4. Level of Knowledge of Pre-Service Teachers regarding the Genderbread Person Model in terms of Sexual Orientation / Attraction (Puso / Patterns of Attraction)

Table 4 illustrates that pre-service teachers possess a strong level of knowledge regarding sexual orientation as presented in the Genderbread Person Model, with a grand mean of 3.27 (SD = 0.42), interpreted as "Strongly Agree." They strongly agreed that sexual orientation refers to emotional, romantic, or sexual attraction (M = 3.39, SD = 0.59), that they can differentiate between heterosexuality, homosexuality, bisexuality, and asexuality (M = 3.31, SD = 0.59), that attraction can be sexual and/or romantic (M = 3.33, SD = 0.52), and that sexual orientation is distinct from gender identity (M = 3.25, SD = 0.56). Familiarity with the broader spectrum of orientations beyond traditional categories was slightly lower (M = 3.05, SD = 0.57), indicating some gaps in understanding. This implies that pre-service teachers are generally knowledgeable about patterns of attraction, but additional emphasis on the diversity and spectrum of sexual orientations could further enhance inclusivity and awareness in teacher preparation programs.

This enhanced understanding is particularly crucial given findings that highlight limited knowledge among educators regarding comprehensive LGBTQ+ terminology and resources (González et al., 2021). Despite these strengths, the observed lower familiarity with the full spectrum of sexual orientations suggests a persistent reliance on binary classifications that may overlook nuances such as pansexuality, queer identities, or the fluidity of attraction (Soule, 2017). Such gaps can lead to challenges in supporting youth who identify with less commonly known orientations, as professionals often report being least familiar with terms like "pansexual" (González et al., 2021). For example, polysexual individuals are attracted to multiple genders, whereas pansexual individuals experience attraction regardless of gender, highlighting the need for a more comprehensive understanding of these distinctions among future educators (Soule, 2017). Indeed, sexual orientation encompasses a person's fundamental and organizing sexual preferences, which can involve attraction, behavior, and identity, and may evolve throughout an individual's lifespan (Santiago et al., 2024).

Problem 2: What is the perceived importance of the Genderbread Person model among pre-service teachers in promoting gender inclusivity, empathy and equity, critical thinking in education, and culturally sensitive pedagogy?

Indicators	Mean	SD	Interpretation
1. The Genderbread Person model helps promote acceptance of diverse gender identities in education.	3.42	0.54	Strongly Agree

2. Using the model encourages the inclusion of marginalized groups in classroom discussions.	3.39	0.49	Strongly Agree
3. The model highlights the importance of moving beyond traditional gender binaries.	3.29	0.49	Strongly Agree
4. The Genderbread model fosters inclusive policies and practices in education.	3.39	0.51	Strongly Agree
5. I believe that the model empowers teachers to create safe spaces for all learners.	3.43	0.56	Strongly Agree
Grand Mean	3.38	0.42	Strongly Agree

Legend: 1.00-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.00 = Strongly Agree

Table 5. Perceived Importance of the Genderbread Person Model among Pre-Service Teachers in Promoting Gender Inclusivity

Table 5 presents that pre-service teacher strongly perceive the importance of the Genderbread Person Model in promoting gender inclusivity, with a grand mean of 3.38 (SD = 0.42), interpreted as "Strongly Agree." Respondents agreed that the model helps promote acceptance of diverse gender identities (M = 3.42, SD = 0.54), encourages inclusion of marginalized groups in classroom discussions (M = 3.39, SD = 0.49), highlights the need to move beyond traditional gender binaries (M = 3.29, SD = 0.49), fosters inclusive policies and practices in education (M = 3.39, SD = 0.51), and empowers teachers to create safe learning spaces (M = 3.43, SD = 0.56). This implies that pre-service teachers recognize the model as a valuable tool for enhancing inclusivity, equity, and respect in educational settings, suggesting that integrating it into teacher preparation programs can support more inclusive and responsive teaching practices.

Furthermore, this recognition aligns with pedagogical approaches that emphasize critical reflection on concepts like heteronormativity and cisgender norms to break down societal barriers for students (Colmenero, 2018; Mitton et al., 2021). This is crucial for fostering environments where individuals of non-conforming gender expressions and sexual orientations feel safe and acknowledged, enabling them to thrive academically and socially (Mitton et al., 2021). Indeed, the pedagogical application of such models, like the Genderbread Person, serves as a visual aid to critically and imaginatively navigate the fluid geographies of gender expression and attraction (Zebracki, 2019).

Indicators	Mean	SD	Interpretation
1. The Genderbread model helps students develop empathy towards individuals of diverse gender backgrounds.	3.42	0.53	Strongly Agree
2. It promotes equitable treatment of all students regardless of gender identity.	3.44	0.52	Strongly Agree
3. The model encourages respect for individual differences in the classroom.	3.49	0.57	Strongly Agree
4. It supports fairness by challenging stereotypes and gender-based discrimination.	3.42	0.56	Strongly Agree
5. I believe the model enhances emotional understanding among students.	3.46	0.53	Strongly Agree
Grand Mean	3.45	0.46	Strongly Agree

Legend: 1.00-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.00 = Strongly Agree

Table 6. Perceived Importance of the Genderbread Person Model among Pre-Service Teachers in Promoting Empathy and Equity

Table 6 exhibits that pre-service teachers strongly perceive the importance of the Genderbread Person Model in promoting empathy and equity, with a grand mean of 3.45 (SD = 0.46), interpreted as "Strongly Agree." They strongly agreed that the model helps students develop empathy toward diverse gender backgrounds (M = 3.42, SD = 0.53), promotes equitable treatment of all students regardless of gender identity (M = 3.44, SD = 0.52), encourages respect for individual differences in the classroom (M = 3.49, SD = 0.57), challenges stereotypes and gender-based discrimination to support fairness (M = 3.42, SD = 0.56), and enhances emotional understanding among students (M = 3.46, SD = 0.53). This implies that the Genderbread Person Model is viewed as an effective tool for fostering empathy, fairness, and inclusivity in educational contexts, suggesting its integration in teacher preparation programs can strengthen pre-service teachers' capacity to nurture equitable and respectful learning environments.

Such training is critical, as it has been shown to inform pre-service teachers' consciousness of homophobia, transphobia, and heteronormativity, thereby enhancing their responsiveness to these issues and encouraging inclusive teaching practices (Mitton et al., 2021). Furthermore, embedding such training into formal curricula models how to disrupt heteronormativity and problematize narrow gender constructs, thus promoting self-efficacy in supporting LGBTQ+ students and their families (Mitton et al., 2021). These findings resonate with existing literature advocating for comprehensive training for pre-service teachers to better serve LGBTQ+ high school students, particularly through interventions that boost self-efficacy and active-empathic listening (Coulter et al., 2020). Moreover, this integration can

address the documented resistance some educators exhibit toward anti-oppressive pedagogy, transforming classrooms into more inclusive and educative spaces (Tompkins et al., 2018).

Indicators	Mean	SD	Interpretation
1. The Genderbread model encourages students to question stereotypes and assumptions about gender.	3.31	0.53	Strongly Agree
2. It stimulates classroom discussions that require critical analysis of gender issues.	3.33	0.52	Strongly Agree
3. The model challenges students to reflect on their own biases and beliefs.	3.31	0.62	Strongly Agree
4. It helps future educators develop analytical skills regarding gender and society.	3.44	0.55	Strongly Agree
5. I believe the model fosters deeper understanding of complex social issues.	3.42	0.58	Strongly Agree
Grand Mean	3.36	0.44	Strongly Agree

Legend: 1.00-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.00 = Strongly Agree

Table 7. Perceived Importance of the Genderbread Person Model among Pre-Service Teachers in Promoting Critical Thinking in Education

Table 7 illustrates that pre-service teachers strongly perceive the importance of the Genderbread Person Model in promoting critical thinking in education, with a grand mean of 3.36 (SD = 0.44), interpreted as "Strongly Agree." Respondents agreed that the model encourages students to question gender stereotypes and assumptions (M = 3.31, SD = 0.53), stimulates classroom discussions requiring critical analysis of gender issues (M = 3.33, SD = 0.52), challenges students to reflect on their own biases and beliefs (M = 3.31, SD = 0.62), helps future educators develop analytical skills regarding gender and society (M = 3.44, SD = 0.55), and fosters deeper understanding of complex social issues (M = 3.42, SD = 0.58). This implies that the model serves as a valuable tool for enhancing critical thinking, self-reflection, and analytical skills, supporting the preparation of teachers who can engage students thoughtfully in discussions about gender and social equity.

Such pedagogical approaches are crucial for transforming single-lensed dimensions of sexuality into a more nuanced understanding of diverse sexual expressions, aligning with queer theory perspectives (Brown, 2020). This expanded understanding moves beyond the mere recognition of LGBTQ+ identities to a deeper engagement with how these identities intersect with broader social dynamics of power, class, race, gender, ability, language, religion, and ethnicity (Mitton et al., 2021; Nzimande, 2017). Furthermore, this comprehensive approach ensures that teacher education programs equip pre-service teachers with the necessary critical consciousness to challenge compulsory heterosexuality and heteronormativity within educational settings, ultimately preparing them to become effective advocates for social justice and inclusion (Kagola & Notshulwana, 2022). This comprehensive approach enables pre-service teachers to develop a critical perspective on how power and discourse have historically subjugated individuals, empowering them to facilitate well-informed, inclusive sexuality education experiences in their future classrooms (Kagola & Notshulwana, 2022).

Indicators	Mean	SD	Interpretation
1. The Genderbread model can be adapted to respect cultural differences in discussing gender.	3.46	0.52	Strongly Agree
2. It provides a framework for teachers to approach gender issues sensitively in multicultural settings.	3.43	0.56	Strongly Agree
3. The model encourages respect for local traditions while promoting inclusivity.	3.42	0.56	Strongly Agree
4. It helps educators balance cultural values and gender equality principles.	3.52	0.50	Strongly Agree
5. I believe that using the model prepares teachers to address diverse classroom contexts.	3.45	0.55	Strongly Agree
Grand Mean	3.46	0.46	Strongly Agree

Legend: 1.00-1.74 = Strongly Disagree; 1.75-2.49 = Disagree; 2.50-3.24 = Agree; 3.25-4.00 = Strongly Agree

Table 8. Perceived Importance of the Genderbread Person Model among Pre-Service Teachers in Promoting Culturally Sensitive Pedagogy

Table 8 demonstrates that pre-service teachers strongly perceive the importance of the Genderbread Person Model in promoting culturally sensitive pedagogy, with a grand mean of 3.46 (SD = 0.46), interpreted as "Strongly Agree." They strongly agreed that the model can be adapted to respect cultural differences in discussing gender (M = 3.46, SD = 0.52), provides a framework for approaching gender issues sensitively in multicultural settings (M = 3.43, SD = 0.56), encourages respect for local traditions while promoting inclusivity (M = 3.42, SD = 0.56), helps educators balance cultural values and gender equality principles (M = 3.52, SD = 0.50), and prepares teachers to address diverse classroom contexts (M = 3.45, SD = 0.55). This implies that the model equips pre-service teachers with strategies to integrate gender inclusivity in

culturally diverse classrooms, highlighting its role in fostering inclusive, respectful, and contextually responsive teaching practices.

This finding aligns with previous research emphasizing that cultural sensitivity education allows teacher candidates to become more aware of their own cultural backgrounds, thereby influencing their perspectives on culturally sensitive education and interactions with diverse students (Aydoğan & İZMİR, 2024). Furthermore, studies have shown that teachers with positive attitudes toward culturally sensitive pedagogy are more likely to integrate culturally responsive strategies into their teaching, thereby supporting students from minority groups (Aydoğan & İZMİR, 2024). Such integration is crucial for fostering inclusive learning environments that affirm students' cultural identities and incorporate diverse knowledge systems, validating cultural diversity within the classroom (Rodriguez et al., 2025). This framework directly supports the development of comprehensive sexuality education by providing pre-service teachers with the tools to navigate sensitive topics through an inclusive and culturally informed lens, moving beyond mere comfort zones to foster genuine diversity in pedagogical approaches (Khau, 2022).

Problem 3: Is there a significant relationship between the level of knowledge of pre-service teachers about the Genderbread Person model and their perceived importance of the model in the context of Gender and Development?

Pre-service Teachers' Knowledge of the Genderbread Person Model		Perceived Importance in Gender and Development			
		<i>r_s</i> value	<i>p</i> - value	Interpretation	Decision
Gender identity	Gender inclusivity	0.607	<.001	Significant (Moderate Correlation)	Reject H ₀
	Empathy and equity	0.510	<.001	Significant (Moderate Correlation)	Reject H ₀
	Critical thinking in education	0.548	<.001	Significant (Moderate Correlation)	Reject H ₀
	Culturally sensitive pedagogy	0.530	<.001	Significant (Moderate Correlation)	Reject H ₀
Gender expression	Gender inclusivity	0.642	<.001	Significant (Moderate Correlation)	Reject H ₀
	Empathy and equity	0.653	<.001	Significant (Moderate Correlation)	Reject H ₀
	Critical thinking in education	0.633	<.001	Significant (Moderate Correlation)	Reject H ₀
	Culturally sensitive pedagogy	0.683	<.001	Significant (Moderate Correlation)	Reject H ₀
Biological sex	Gender inclusivity	0.704	<.001	Significant (High Correlation)	Reject H ₀
	Empathy and equity	0.675	<.001	Significant (Moderate Correlation)	Reject H ₀
	Critical thinking in education	0.679	<.001	Significant (Moderate Correlation)	Reject H ₀
	Culturally sensitive pedagogy	0.736	<.001	Significant (High Correlation)	Reject H ₀
Sexual orientation	Gender inclusivity	0.723	<.001	Significant (High Correlation)	Reject H ₀
	Empathy and equity	0.678	<.001	Significant (Moderate Correlation)	Reject H ₀
	Critical thinking in education	0.654	<.001	Significant (Moderate Correlation)	Reject H ₀
	Culturally sensitive pedagogy	0.705	<.001	Significant (High Correlation)	Reject H ₀
Pre-service Teachers' Knowledge of the Genderbread Person Model	Perceived Importance in Gender and Development	0.798	<.001	Significant (High Correlation)	Reject H₀

Note: Results are considered statistically significant at a *p*-value of ≤ 0.05 .

Table 9. Relationship between Pre-service Teachers' Knowledge of the Genderbread Person Model and its Perceived Importance in Gender and Development

Table 9 demonstrates a strong and significant relationship between pre-service teachers' knowledge of the Genderbread Person Model and their perceived importance of the model in Gender and Development. The overall correlation between knowledge and perceived importance is high ($r_s = 0.798$, $p < .001$), indicating that as pre-service teachers' understanding of the model increases, so does their recognition of its relevance in educational contexts. Breaking it down by dimensions, knowledge of gender identity shows moderate correlations with perceptions of gender inclusivity ($r_s = 0.607$), empathy and equity ($r_s = 0.510$), critical thinking ($r_s = 0.548$), and culturally sensitive pedagogy ($r_s = 0.530$), all statistically significant ($p < .001$). Knowledge of gender expression also shows moderate correlations with all perceived importance indicators, with the strongest being culturally sensitive pedagogy ($r_s = 0.683$). For biological sex, correlations range from moderate to high, with particularly strong associations for gender inclusivity ($r_s = 0.704$) and culturally sensitive pedagogy ($r_s = 0.736$). Finally, knowledge of sexual orientation exhibits high correlations with gender inclusivity ($r_s = 0.723$) and culturally sensitive pedagogy ($r_s = 0.705$), while moderate correlations exist for empathy and equity ($r_s = 0.678$) and critical thinking ($r_s = 0.654$).

This detailed pattern implies that each component of knowledge—identity, expression, biological sex, and sexual orientation—contributes meaningfully to pre-service teachers' appreciation of the model's role in promoting inclusive, equitable, reflective, and culturally responsive teaching. In practical terms, strengthening understanding across all dimensions of the Genderbread Person Model is likely to enhance teachers' confidence and commitment to implementing gender-sensitive pedagogy, fostering classrooms that respect diversity, challenge biases, and support social justice principles. This finding underscores the necessity of integrating comprehensive gender-related curricula into teacher education programs to cultivate highly competent and empathetic educators (Ouahabi et al., 2025). Such programs would equip future teachers with the pedagogical skills to address complex gender and sexuality topics effectively, moving beyond superficial discussions to foster deep understanding and acceptance among students (Arévalo & Peñaloza, 2024). Moreover, integrating gender-responsive pedagogy into teacher training is critical for ensuring that educators can address the diverse learning experiences and needs of students, challenging gender stereotypes, and fostering inclusive environments (Aafaf et al., 2025). Universities, therefore, need to critically assess their teacher training programs to integrate more comprehensive sexuality education content, ensuring that pre-service teachers gain sufficient knowledge to promote students' sexual health and well-being (Schindele et al., 2023; Bytautas & Daukilas, 2023).

Problem 4: How do pre-service teachers envision integrating the Genderbread Person model into classroom instruction to foster gender-sensitive teaching?

Main Themes	Sub-themes	Significant Statements	General Description of the Theme
1. Using the Genderbread Person as a Learning Tool to Explain Gender Concepts	1.1 Teaching the four dimensions of gender (identity, expression, biological sex, attraction)	• "Gender has four parts: identity, expression, body, and attraction." (S1) • "Define and differentiate... identity, attraction, expression, and sex." (S2) • "I will explain that gender is not just male or female." (S14, S17, S28, S42, S69, S106) • "Breaks gender into 4 simple parts." (S15)	The Genderbread Person will serve as a key teaching tool to unpack the complexity of gender in an understandable and structured format.
	1.2 Using visuals and interactive activities to enhance learning	• "Use it as a visual and interactive tool." (S10, S16, S41, S57) • "Use visual guide... let students create their own diagrams." (S36) • "Gamiton nako sa klase..." (S12, S44, S94)	Teachers plan to use the model as a visual guide, supported by class activities for deeper comprehension.
	1.3 Integrating the model in different subjects	• "Use it across subjects like ELA and Health." (S2) • "Integrate in ESP, social studies, values education." (S15, S36, S67, S116)	The model is envisioned as applicable across multiple subjects, making gender sensitivity part of general instruction.
2. Promoting Respect, Empathy, and Inclusive Classroom Values	2.1 Encouraging respect for diverse gender identities	• "Teach that everyone deserves respect." (S7, S21, S25, S62, S82, S88) • "Students should understand and accept each other." (S98, S73) • "To promote respect for others." (S44, S91)	The model is seen as a tool to foster more respectful interactions and reduce discrimination in the classroom.
	2.2 Promoting empathy and understanding	• "Normalize diversity, promote empathy." (S15, S45, S109) • "Encourage open-mindedness, self-awareness." (S16, S36)	Students learn to appreciate diverse experiences, promoting tolerance and emotional understanding.
	2.3 Teaching fairness, equality, and non-discrimination	• "Gusto ko mag-create ug safe classroom." (S94, S65, S107) • "Avoid discrimination and understand their status." (S114) • "Pantay pantay ang pagtingin." (S93)	The model is used to dismantle bias, stereotyping, and unfair treatment based on gender.
3. Creating a Safe, Inclusive, and Supportive Learning Environment	3.1 Establishing a safe space for expression	• "Create a safe classroom where everyone is accepted." (S10, S21, S69, S75, S101) • "Students learn without fear of discrimination." (S90)	The Genderbread Person model supports psychological safety, allowing students to express identity without fear.
	3.2 Building inclusive classroom practices	• "Create a fundamentally inclusive classroom culture." (S2, S11, S26, S61, S110) • "To foster a safe, inclusive, gender-sensitive space." (S81)	The focus is to ensure instruction, classroom set-ups, and interactions reflect inclusion.

4. Encouraging Dialogue, Reflection, and Open Discussion About Gender	3.3 Addressing stereotypes and biases in class	• “Challenging stereotypes and biases.” (S10, S24, S61, S92) • “Promote inclusive language.” (S24, S54)	Participants aim to use the model to dismantle harmful gender norms and linguistic bias.
	4.1 Using the model as a foundation for discussion	• “Use it to start open discussion.” (S41, S104, S60) • “Pinaagi sa discussions ug activities.” (S82)	The model is used to encourage constructive and respectful conversation about gender topics.
	4.2 Connecting lessons to real-life experiences	• “Share real life issues/situations.” (S47) • “Help students reflect on their own identity.” (S5, S68)	Students apply concepts to personal experiences, making learning meaningful.
	4.3 Educating students about reality of diverse gender experiences	• “Build awareness that everyone experiences gender differently.” (S99, S13, S28) • “Makakatulong... para maunawaan ang iba’t ibang kasarian.” (S85, S67)	The model helps learners understand that gender experiences vary across individuals and should be respected.
5. Addressing the Needs of LGBTQ+ and Marginalized Groups	5.1 Providing representation and validation	• “Support LGBTQ+ awareness.” (S24, S85) • “Students can show themselves without fear of being discriminated.” (S29)	Teachers want marginalized students to feel seen, understood, and represented.
	5.2 Understanding diverse student backgrounds	• “It helps educators know and understand their students.” (S29) • “Need to know them beyond behavior but identity.” (S59)	The model helps teachers build deeper relationships with students beyond surface interactions.
6. Practical Activities and Teaching Approaches	5.3 Helping prevent bullying and prejudice	• “Bawal ang pang-aasar.” (S85) • “Avoid discrimination.” (S114)	The goal is to reduce conflict, mockery, and prejudice rooted in bias.
	6.1 Creative projects and student engagement	• “Use creative activities like drawing and reflection.” (S15, S36) • “Role-playing or speech activities.” (S82)	The model will be taught through hands-on, practical classroom tasks.
	6.2 Using model as framework for behavior and communication expectations	• “Minding the words the teacher uses.” (S35) • “Create calm and accurate communication.” (S38)	Teachers will model respectful communication and guide students in doing the same.
	6.3 Using the model as reference for classroom rules and culture	• “We have to respect each other to avoid troubles.” (S37) • “To guide students to be open-minded and inclusive.” (S76, S78)	The Genderbread Person becomes a basis for class norms of respect and gender sensitivity.

Table 10. Pre-service Teachers’ Perspectives on Integrating the Genderbread Person Model for Gender-sensitive Instruction

Table 10 highlights the perspectives of pre-service teachers on integrating the Genderbread Person model to promote gender-sensitive teaching. For Main Theme 1: Using the Genderbread Person as a Learning Tool to Explain Gender Concepts, subtheme 1.1 Teaching the four dimensions of gender (identity, expression, biological sex, attraction) revealed that teachers recognize the model as a structured approach to clarify complex gender concepts. Significant statements such as “Gender has four parts: identity, expression, body, and attraction” (S1) and “Define and differentiate... identity, attraction, expression, and sex” (S2) illustrate how pre-service teachers plan to explain that gender is not simply male or female. Subtheme 1.2 Using visuals and interactive activities to enhance learning showed teachers’ intent to make learning engaging through visual aids and student-generated diagrams, as reflected in statements like “Use it as a visual and interactive tool” (S10) and “Use visual guide... let students create their own diagrams” (S36). Subtheme 1.3 Integrating the model in different subjects indicated that pre-service teachers see the model’s applicability beyond a single subject, incorporating it into ELA, Health, ESP, Social Studies, and Values Education, as reflected in statements such as “Use it across subjects like ELA and Health” (S2). The general description shows that the model serves as a versatile tool for explaining gender comprehensively and in an interactive way.

This multifaceted application demonstrates an understanding among pre-service teachers that gender education should be integrated across the curriculum to foster a more inclusive learning environment, aligning with calls for comprehensive gender-responsive training in teacher education programs (Ouahabi et al., 2025). Such integration is crucial for equipping future educators with the pedagogical tools necessary to address complex gender topics effectively, ensuring that all students feel affirmed and understood within the classroom setting (Ouahabi et al., 2025; Wacker & Ryken, 2012). Indeed,

fostering gender collaboration and challenging stereotypes are critical aspects of this approach, enabling educators to create learning environments that respect diverse gendered needs and styles (Ouahabi et al., 2025).

Under Main Theme 2: Promoting Respect, Empathy, and Inclusive Classroom Values, subtheme 2.1 Encouraging respect for diverse gender identities emphasizes fostering acceptance, as seen in statements like “Teach that everyone deserves respect” (S7) and “Students should understand and accept each other” (S98). Subtheme 2.2 Promoting empathy and understanding highlights strategies to cultivate tolerance, with significant statements such as “Normalize diversity, promote empathy” (S15) and “Encourage open-mindedness, self-awareness” (S16). Subtheme 2.3 Teaching fairness, equality, and non-discrimination reflects the intention to reduce bias and stereotyping, illustrated by statements like “Gusto ko mag-create ug safe classroom” (S94) and “Pantay pantay ang pagtingin” (S93). The general description shows that the model helps create a classroom culture grounded in empathy, respect, and equity. This approach is crucial for establishing an inclusive educational environment that actively challenges traditional gender norms and acknowledges diverse gender identities within academic spaces, mirroring successful integrations in higher education settings (Rodriguez et al., 2025). Furthermore, educators employ various gender-responsive teaching methodologies and strategies, including mixed-gender group work and ensuring equitable participation in laboratory activities, to actively promote gender equality in science classrooms and other subjects (Canuto & Espique, 2023).

For Main Theme 3: Creating a Safe, Inclusive, and Supportive Learning Environment, subtheme 3.1 Establishing a safe space for expression demonstrated teachers’ focus on psychological safety, exemplified by statements such as “Create a safe classroom where everyone is accepted” (S10) and “Students learn without fear of discrimination” (S90). Subtheme 3.2 Building inclusive classroom practices reflects efforts to ensure classroom norms support inclusion, as noted in statements like “Create a fundamentally inclusive classroom culture” (S2) and “To foster a safe, inclusive, gender-sensitive space” (S81). Subtheme 3.3 Addressing stereotypes and biases in class illustrates teachers’ aim to challenge harmful norms and promote inclusive language, with statements such as “Challenging stereotypes and biases” (S10) and “Promote inclusive language” (S24). The general description shows that the model facilitates the development of supportive, inclusive, and equitable learning environments.

This proactive approach not only benefits LGBTQ+ students by fostering an affirming environment but also enhances the overall classroom dynamic for all students by promoting empathy and respect for diversity (Rodriguez et al., 2025; Mutya et al., 2021). Such an environment encourages open dialogue and critical thinking about gender, thereby aligning with broader educational goals of fostering informed and socially conscious citizens (Rodriguez et al., 2025). Moreover, teacher training that includes a deep understanding of school policies supporting gender equality and preventing discrimination can further reinforce these inclusive practices (Damanik & Saliman, 2023).

In Main Theme 4: Encouraging Dialogue, Reflection, and Open Discussion About Gender, subtheme 4.1 Using the model as a foundation for discussion highlights its role in initiating conversations, reflected in statements like “Use it to start open discussion” (S41) and “Pinaagi sa discussions ug activities” (S82). Subtheme 4.2 Connecting lessons to real-life experiences shows that teachers want students to relate concepts to personal situations, with statements such as “Share real life issues/situations” (S47) and “Help students reflect on their own identity” (S5). Subtheme 4.3 Educating students about reality of diverse gender experiences underscores the aim to increase awareness and acceptance of individual differences, evident in statements like “Build awareness that everyone experiences gender differently” (S99) and “Makakatulong... para maunawaan ang iba’t ibang kasarian” (S85). The general description illustrates that the model encourages reflective, respectful, and meaningful discussions on gender. This fosters a classroom climate where students feel secure enough to explore complex perspectives on gender identity and norms, ask questions, and engage in constructive dialogue (Wacker & Ryken, 2012). This pedagogical approach aligns with studies suggesting that interactive discussions about diverse gender experiences can significantly aid students’ awareness of gender issues and promote more tolerant societal attitudes (Domogen et al., 2022). Ultimately, these methods enable students to link academic content with broader social realities, fostering transformative learning experiences where individuals critically reflect on their assumptions and act upon new understandings (Rodriguez et al., 2025).

For Main Theme 5: Addressing the Needs of LGBTQ+ and Marginalized Groups, subtheme 5.1 Providing representation and validation emphasizes recognizing and supporting marginalized students, reflected in statements such as “Support LGBTQ+ awareness” (S24) and “Students can show themselves without fear of being discriminated” (S29). Subtheme 5.2 Understanding diverse student backgrounds highlights teachers’ efforts to know students beyond surface behavior, as in statements like “It helps educators know and understand their students” (S29). Subtheme 5.3 Helping prevent bullying and prejudice shows the goal of reducing discriminatory behaviors, evident in statements like “Bawal ang pang-aasar” (S85) and “Avoid discrimination” (S114). The general description suggests that the model empowers educators to address the needs of marginalized students while promoting inclusivity and safety. This comprehensive approach not only ensures that all students, including those from LGBTQ+ communities, feel respected and understood but also cultivates an environment where prejudice is actively challenged and mitigated (Mutya et al., 2021; Fores, 2018). This aligns with research

emphasizing the importance of creating safe school environments that support the mental health and self-actualization of LGBTQ+ students (Espinol et al., 2021).

Finally, for Main Theme 6: Practical Activities and Teaching Approaches, subtheme 6.1 Creative projects and student engagement shows that teachers plan hands-on learning, illustrated in statements like “Use creative activities like drawing and reflection” (S15) and “Role-playing or speech activities” (S82). Subtheme 6.2 Using the model as framework for behavior and communication expectations reflects guiding students in respectful interactions, as in statements such as “Minding the words the teacher uses” (S35) and “Create calm and accurate communication” (S38). Subtheme 6.3 Using the model as reference for classroom rules and culture shows that the model also informs class norms, evident in statements like “We have to respect each other to avoid troubles” (S37) and “To guide students to be open-minded and inclusive” (S76). The general description demonstrates that the model provides a practical framework for engagement, communication, and establishing gender-sensitive classroom culture.

This framework, when integrated into pedagogical practices, can equip educators with the tools to implement transformative teaching strategies that promote equity and inclusivity for all learners (Rodriguez et al., 2025; Barozzi & Cecilia, 2020). Such pedagogical practices foster not only inclusivity and relevance in learning but also encourage critical reflection on how social structures and cultural norms influence personal values and community dynamics, transforming the classroom into a space for critical dialogue and identity formation (Rodriguez et al., 2025; Domogen et al., 2022).

Overall, the analysis indicates that pre-service teachers perceive the Genderbread Person model as a comprehensive tool to teach gender concepts, foster respect and empathy, create inclusive and safe learning environments, encourage dialogue and reflection, address the needs of marginalized groups, and guide practical classroom approaches.

Problem 5: What intervention program would be implemented in the education program to address this gap?

Letter	Component	Specific Objectives	Key Activities	Key Participants
B	Building Foundations	- Strengthen theoretical knowledge of gender concepts including identity, expression, biological sex, and sexual orientation (Genderbread Model). - Expand understanding of spectrum-based identities such as non-binary, intersex, genderqueer, and pansexual identities.	- SOGIESC 101 Masterclass - Lectures, infographics, concept mapping - Pre- and post-knowledge assessments	- Pre-service teachers - GAD Resource Speakers - Education Faculty
A	Awareness Intensification	- Develop deeper awareness of real-life experiences of diverse gender groups. - Build sensitivity and empathy toward marginalized students.	- Case studies - Dialogues and structured discussions - Draw-Your-Gender Reflection Activity	- Pre-service teachers - GAD Office - External Advocates / NGOs
H	Holistic Curriculum Integration	- Integrate GAD concepts across instructional areas (e.g., English, ESP, Health, Social Studies). - Equip students to translate theory into instruction.	- GAD-integrated lesson plan writing - Learning module alignment workshops	- Pre-service teachers - Cooperating instructors - Curriculum experts
A	Application in Practice Teaching	- Demonstrate gender-inclusive teaching strategies in real or simulated classrooms. - Receive constructive feedback aligned with GAD standards.	- Demo teaching sessions - Classroom observation with rating sheets - Feedback conferences	- Pre-service teachers - Practice Teaching Supervisors - Cooperating Teachers
G	Gender-Safe Spaces	- Ensure that classrooms create safe environments for gender-diverse students. - Reduce bullying, discrimination, microaggressions, and deadnaming.	- Classroom Bias Checklist - Establish Safe Space Rules - Anti-bullying simulations and interventions	- Pre-service teachers - Guidance Counselors - School GAD Focal Persons
H	Harmonizing School Policies	- Strengthen knowledge of DepEd GAD mandates, child protection policies, and student rights. - Align classroom practices with institutional protections.	- Policy orientation sessions - Student rights discussions - Integration into teaching manuals	- Pre-service teachers - School Administrators - Legal and Policy Officers

A	Action Research	- Conduct GAD-based mini research to evaluate classroom impact. - Document evidence of inclusive teaching outcomes.	- Short action research studies - Data gathering during practicum - Presentation and defense	- Pre-service teachers - Research Advisers - Faculty Panel
R	Reflection and Self-Realization	- Encourage personal examination of biases, beliefs, and learning progress.	- Learning journals - Guided weekly reflections - Rainbow Sharing Circles	- Pre-service teachers - Faculty Mentors
I	Institutionalization & Evaluation	- Ensure long-term sustainability and continuous quality improvement. - Recommend the program for inclusion in curriculum and annual GAD plans.	- Post-program evaluation - Impact reporting - Presentation to Academic Council	- Education Department Council - GAD Office - Program Coordinators

Table 11. B.A.H.A.G.H.A.R.I. Program (Building Acceptance and Holistic Awareness for Gender-Harmonized Academic and Responsive Instruction)

Table 11 is presented above to illustrate the summary of the proposed intervention program based on the findings of the study. B.A.H.A.G.H.A.R.I. is the program created to address the biases and disbelief of the pre-service teachers about the genderbread identity model. By enhancing their understanding, the pre-service teachers can relate to their students.

B.A.H.A.G.H.A.R.I. Program (Building Acceptance and Holistic Awareness for Gender-Harmonized Academic and Responsive Instruction) was created to address the identified gaps in pre-service teachers' knowledge of spectrum-based gender identities and to strengthen the practical application of gender-sensitive pedagogy. This intervention program is designed as a comprehensive, multi-phase initiative aligned with the principles of Gender and Development (GAD) and informed by the Genderbread Person Model. It systematically progresses from foundational knowledge-building to institutionalization, ensuring both individual and structural impact within the teacher education program.

B – Building Foundations

The Building Foundations component focuses on strengthening pre-service teachers' theoretical understanding of core gender concepts, including gender identity, gender expression, biological sex, and sexual orientation. This phase directly addresses the knowledge gaps identified in the study, particularly in relation to spectrum-based identities such as non-binary, intersex, genderqueer, and pansexual identities. Through activities such as the SOGIESC 101 Masterclass, lectures, infographics, and concept mapping exercises, participants are provided with structured and evidence-based learning experiences. Pre- and post-knowledge assessments are incorporated to measure learning gains and ensure conceptual clarity. This foundational phase establishes a shared language and understanding necessary for inclusive and gender-responsive teaching.

A – Awareness Intensification

The Awareness Intensification phase aims to deepen pre-service teachers' awareness of the lived experiences of diverse gender groups and to cultivate empathy toward marginalized learners. This component emphasizes affective learning by moving beyond abstract concepts toward real-life narratives and reflective engagement. Activities such as case studies, structured dialogues, and the Draw-Your-Gender Reflection Activity allow participants to critically engage with personal and societal perspectives on gender. In collaboration with the GAD Office and external advocates or NGOs, this phase humanizes gender diversity and strengthens emotional understanding, which the study found to be strongly associated with perceived importance of gender-inclusive practices.

H – Holistic Curriculum Integration

The Holistic Curriculum Integration component is designed to bridge theory and practice by embedding GAD concepts across multiple subject areas, including English, ESP, Health, and Social Studies. This phase equips pre-service teachers with the skills to translate gender theories into concrete instructional strategies. Through GAD-integrated lesson plan writing and learning module alignment workshops, participants learn to design inclusive lessons that reflect gender sensitivity while remaining aligned with curricular standards. Collaboration with cooperating instructors and curriculum experts ensures that gender inclusivity is not treated as an isolated topic but as an integral element of everyday teaching practice.

A – Application in Practice Teaching

The Application in Practice Teaching phase provides opportunities for pre-service teachers to demonstrate gender-inclusive strategies in real or simulated classroom settings. Through demo teaching sessions, classroom observations using GAD-aligned rating sheets, and structured feedback conferences, participants receive constructive guidance on their instructional practices. This component reinforces reflective teaching and allows future educators to refine their approaches based on evidence-based feedback. It also ensures alignment between theoretical understanding, pedagogical intent, and actual classroom behavior.

G – Gender-Safe Spaces

The Gender-Safe Spaces component focuses on creating learning environments that are psychologically safe and affirming for all learners, particularly gender-diverse students. This phase responds to concerns related to bullying, discrimination, microaggressions, and practices such as deadnaming. Activities include the use of a Classroom Bias Checklist, the establishment of safe space rules, and anti-bullying simulations and intervention exercises. By working closely with guidance counselors and school GAD focal persons, this component strengthens pre-service teachers' capacity to proactively prevent discrimination and foster inclusive classroom cultures.

H – Harmonizing School Policies

The Harmonizing School Policies phase emphasizes alignment between classroom practices and existing institutional and national frameworks. Pre-service teachers are oriented on DepEd GAD mandates, child protection policies, and student rights to ensure that inclusive teaching practices are legally grounded and institutionally supported. Policy orientation sessions, student rights discussions, and the integration of these policies into teaching manuals enable participants to understand their professional responsibilities and ethical obligations as future educators.

A – Action Research

The Action Research component encourages pre-service teachers to conduct GAD-based mini research projects during their practicum. This phase promotes evidence-based practice by enabling participants to document and evaluate the impact of gender-inclusive strategies on classroom dynamics and learner engagement. Through guided data gathering, analysis, and presentation or defense of findings, pre-service teachers develop research competencies while contributing to continuous improvement in gender-responsive education.

R – Reflection and Self-Realization

The Reflection and Self-Realization phase supports personal growth by encouraging participants to critically examine their own beliefs, biases, and learning progress. Activities such as learning journals, guided weekly reflections, and Rainbow Sharing Circles provide safe and structured spaces for introspection and dialogue. This component acknowledges that effective gender-sensitive teaching requires not only technical knowledge but also self-awareness and ethical reflection.

I – Institutionalization and Evaluation

Finally, the Institutionalization and Evaluation component ensures the sustainability of the B.A.H.A.G.H.A.R.I. Program. Post-program evaluations, impact reports, and formal presentations to the Academic Council are conducted to assess effectiveness and recommend the program's inclusion in the curriculum and annual GAD plans. This phase positions the intervention as a long-term institutional initiative rather than a one-time activity, supporting continuous quality improvement and systemic change.

Overall, the B.A.H.A.G.H.A.R.I. Program provides a structured, holistic, and sustainable intervention that directly responds to the gaps identified in this study. By integrating cognitive, affective, pedagogical, and institutional dimensions of gender-sensitive education, the program equips pre-service teachers with the knowledge, skills, and dispositions necessary to implement inclusive, equitable, and culturally responsive instruction in diverse classroom contexts.

Conclusion and Recommendations

Studies across several contexts demonstrate that gender tools, including visual models, improve educators' comprehension of equality and inclusion in education. Their efficacy depends on institutional backing, critical analysis, cultural adaptation, mentorship, assessment, and policy coherence to promote genuine pedagogical change. Coulter (2020) observes an absence of systematic training, indicating that favorable attitudes regarding LGBTQ+ kids do not convert into substantive understanding or inclusive practices, suggesting a need for curriculum interventions like the Genderbread Person to build skills. According to Blair (2020), pre-service teachers tend to avoid trans children because they lack conceptual

frameworks. However, accessible models can mitigate by promoting empathy and normative inclusion. Gegenfurtner (2021) emphasizes the difference between attitudes and nuanced knowledge by finding favorable views toward transgender students. Teacher educators' confidence and incorporation of LGBTQ+ content vary, according to Clark & Kosciw (2022), who emphasize the importance of high-quality professional development for efficient tool use.

Sánchez Torrejón (2023) detects curricular omissions and binary frameworks in elementary education, supporting flexible models for young children. In order to inform instrument design, Rende Mendoza (2024) incorporates practices from trans teachers, such as conceptual models for inclusive curriculum. Galano (2024) shows how short curriculum modules can enhance pre-service teachers' attitudes and knowledge. Sam Killermann (2011–present) developed the Genderbread Person, which breaks down gender into continuum (identification, expression, sex, and attraction) and is popular due to its ease of usage in clearing up conceptual ambiguity. Together, these results support the use of these resources in teacher education to close knowledge gaps, promote inclusion, and assess their perceived value in preparing teachers for a variety of classrooms.

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Appendices

No appendices are attached to this study.