



PRIMARY RESEARCH

# Gender equality learning materials methods and strategies subject matter evaluation

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**Abstract.** This study aims at examining gender equality as a manifested issue in educational institutions. The Polytechnic University of the Philippines, the largest state university in the country in terms of a student, is considered the case study. Descriptive statistics are taken as the research method, by which a survey is conducted to get the perceptions of future educators, particularly among students currently pursuing the Bachelor in Business Teachers Education (BBTE) degree. A custom-made questionnaire is taken to gather data. The required data include the perceptions of BBTE students on academic practices related to gender equality in terms of learning materials, methods and strategies, subject matter, and evaluation. The study reveals that respondents strongly agree that gender equality has been currently manifested in all these factors. Besides, this research discovers no significant difference between the perceptions of male and female respondents on the equality issue. The findings imply that teachers should be aware of gender equality within classes.

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## INTRODUCTION

The society may have recognized the differences of life experiences, expectations, and needs between women and men, in which they repeatedly include inequality, while it is in fact subject to change. Besides academic issues, gender equality may require a stronger concern from the society and educational institutions. There should be non-discriminatory educational benefits for either men or women. It will surely contribute to a more equal relationship between women and men.

The International Planned Parenthood Federation (IPPF), an international non-governmental organization (NGO) with 149 member associations in 189 countries, has defined gender equality as a measurable equal representation of women and men. Gender equality does not imply that women and men are the same, but that they have an equal value and should receive an equal treatment (IPPF, 2013).

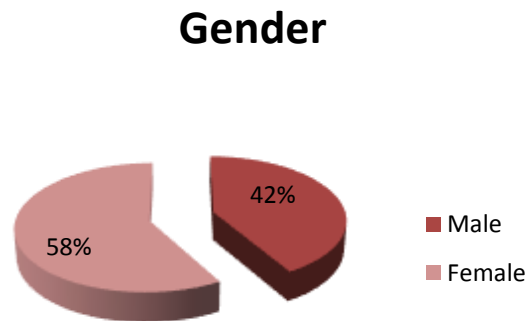
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In fact, the United Nations has begun to treat gender equality as a human right. Its importance has been highlighted by its inclusion as one of the 8 Millennium Development Goals (MDG). The Goal no. 3 has clearly advocated a more critical promotion of gender equality and women empowerment (United Nations, 2000).

**TABLE I.** Frequency and percentage distribution of respondents by gender

Gender	Frequency	Percentage
Male	45	41.67
Female	63	58.33
<b>Total</b>	<b>108</b>	<b>100.00</b>



**FIGURE 1.** Frequency and percentage distribution of respondents by gender

In the Philippines setting, the government has described gender equality as a situation in which women and men may enjoy the same status and conditions, while have an equal opportunity for expressing their potential to contribute to the political, economic, social and cultural development of the country (Yap et al., 2015). Tubadeza (2013), in an article published by the Business World, has stated that the country has topped all Asia-Pacific countries while ranked fifth globally within a global gender-gap index published by the World Economic Forum (WEF). Besides, the Philippines has also achieved a top position in the Educational Attainment index (Mahboob et al., 2013). On the other hand, gender equality in fact requires a serious effort to promote it, while the effort needs the right target to begin with. Among institutions within the society, schools have the promising potential to start the advocacy. Lynch (2009) has argued that the attitudes of teachers and teacher educators are important in facilitating changes. Hence, a comprehensive training on equality-related issues, including gender, should be introduced for pre-service and in-service training. The current study aims at examining the academic practices of gender equality as manifested in educational institutions. The investigation is conducted at the

Polytechnic University of the Philippines, because it represents the largest portion of students in the country, making it the country's largest university in

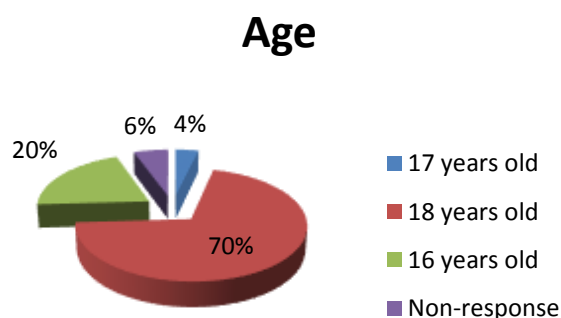
terms of student body. In other words, the university has a potential to reveal the general picture of the equality issue under investigation. A survey is conducted to discover the perceptions of future educators, particularly students currently pursuing the Bachelor in Business Teachers Education (BBTE) degree. The null hypothesis (H<sub>0</sub>) proposes that there is no significant difference between the perceptions of male and female students with regards to gender equality within a university.

### METHOD

The current research is conducted by using descriptive statistics. A custom-made questionnaires is taken to gather required data. The perceptions of BBTE students on gender equality in the university are investigated in terms of learning materials, methods and strategies, subject matter and evaluation. The survey is conducted over 45 male and 63 female respondents. These respondents are selected by using a simple random sampling based on the Slovin's formula (Almeda et al., 2010).

**TABLE 2.** Frequency and percentage distribution of respondents by age

Age	Frequency	Percentage (%)
17 years old	4	3.70
18 years old	76	70.37
16 years old	22	20.37
Non-response	6	5.56
<b>Total</b>	<b>108</b>	<b>100.00</b>



**FIGURE 2.** Frequency and percentage distribution of respondents by civil status

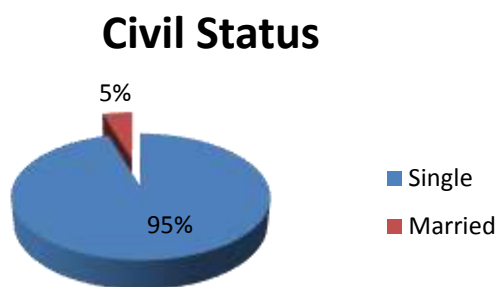
### RESULTS AND DISCUSSION

Table 1 and Figure 1 exhibit the frequency and percentage distribution of students by gender. There are 63 female (58.33%) and 45 male (41.67%) respondents. Table 2 and Figure 2 show the frequency and percentage distribution by age. Among 108 respondents, there are seventy-six 18 years old

students (70.37%), twenty-two 16 years old (20.37%), four 17 years old (3.70%) and six respondents who choose not to state their genders. Then, Table 3 and Figure 3 exhibit the distribution by civil status. It appears that there are 103 respondents (95.40%) who are still single, while only 5 (4.6%) married respondents.

**TABLE 3.** Frequency and percentage distribution of respondents by civil status

Civil Status	Frequency	Percentage (%)
Single	103	95.40
Married	5	4.60
<b>Total</b>	<b>108</b>	<b>100.00</b>



**FIGURE 3.** Frequency and percentage distribution of respondents by civil status

**TABLE 4.** The perceptions of future educators on gender equality in terms of learning materials

Learning Materials	SA	A	D	SD	SD	WM	Verbal Interpretation
	4	3	2	1			
1. Spoken language uses either gender-neutral or male or female forms.	102	6	0	0	0.230	3.94	Strongly Agree
2. Written language uses either gender-neutral or male or female forms.	101	7	0	0	0.247	3.94	Strongly Agree
3. Male and female connoted domains appear equally often and with same	101	7	0	0	0.247	3.94	Strongly Agree
4. Male and female persons appear in the material (photos, examples,	102	6	0	0	0.230	3.94	Strongly Agree
5. Male and female persons appear in the material (photos, examples,	102	6	0	0	0.230	3.94	Strongly Agree
<b>OVERALL:</b>					<b>0.221</b>	<b>3.94</b>	<b>Strongly Agree</b>

Notes: SA: Strongly Agree

SD :Standard Deviation

A: Agree  
 D: Disagree  
 SD: Strongly Disagree

WM :Weighted Mean

Table 4 shows the perceptions of future educators on gender equality in 64 terms of learning materials. In fact, all five factors in their learning materials get a 65 weighted mean of 3.94 with a verbal interpretation of strongly agree. Furthermore,

**TABLE 5.** The perceptions of future educators on gender equality in terms of methods and strategies

Methods and Strategies	SA	A	D	SD	SD	WM	Verbal Intrepretation
	4	3	2	1			
1. The teacher addresses male and female students equally often and with equally stimulating demands.	102	6	0	0	0.230	3.94	Strongly Agree
2. The teacher equally takes on contributions from male and female students.	101	7	0	0	0.247	3.94	Strongly Agree
3. The teacher gives equally constructive feedback to male and female students.	102	6	0	0	0.230	3.94	Strongly Agree
4. In group tasks, each student takes various and non-stereotypic roles and functions.	102	6	0	0	0.230	3.94	Strongly Agree
5. The teacher reinforces non-stereotypic behavior of students and regulates stereotypic behavior of students.	99	9	0	0	0.278	3.92	Strongly Agree
6. The development of gender competence is among the learning objectives.	104	4	0	0	0.190	3.96	Strongly Agree
7. Critical thinking is among the learning objectives and integrated in the teaching activities in order to enable detection and reflection of inequality.	102	6	0	0	0.230	3.94	Strongly Agree
8. Students reflect on their attitudes regarding gender equality and femininity/masculinity.	102	4	2	0	0.327	3.93	Strongly Agree
9. Gender equality is explicitly presented as principle of teaching.	100	8	0	0	0.263	3.93	Strongly Agree
10. Male as well as female teachers/tutors are involved when team teaching is employed.	104	4	0	0	0.190	3.96	Strongly Agree
<b>OVERALL:</b>					<b>0.209</b>	<b>3.94</b>	<b>Strongly Agree</b>

Table 5 exhibits the perceptions in terms of methods and strategies. It appears that the statements:

- The development of gender competence is among the learning objectives
- Male as well as female teachers/tutors are involved when team teaching is

**TABLE 6.** The perceptions of future educators on gender equality in terms of subject matter

Subject Matter	SA	A	D	SD	SD	WM	VI
	4	3	2	1			
1. Both male and female authors of books and articles are considered.	106	2	0	0	0.135	3.98	Strongly Agree
2. Both male and female researchers are considered.	103	5	0	0	0.211	3.95	Strongly Agree
3. The relation between teaching content and gender dimension (general theory, stereotypes, inequalities, etc.) is revealed.	99	9	0	0	0.278	3.92	Strongly Agree
4. Students reflect about gender-related structural dependencies/constraints within their domain.	99	7	2	0	0.360	3.90	Strongly Agree
5. Students reflect about gender-related structural dependencies/constraints within their work environment.	105	3	0	0	0.165	3.97	Strongly Agree
<b>OVERALL:</b>					<b>0.195</b>	<b>3.94</b>	<b>Strongly Agree</b>

employed get the highest weighted mean (3.96) with a verbal interpretation of strongly agree. These are followed by these statements:

- The teacher addresses male and female students equally often and with equally stimulating demands
- The teacher equally takes on contributions from male and female students
- The teacher gives equally constructive feedback to male and female students
- In group tasks, each student takes various and non-stereotypic roles and functions and the factor:

- Critical thinking is among the learning activities in order to enable detection and reflection of inequality

with a weighted mean of 3.94 and a verbal interpretation of strongly agree. These are further followed by:

- Students reflect on their attitudes regarding gender equality and femininity or masculinity
- Gender equality is explicitly presented as principle of teaching

with a weighted mean of 3.93 and a verbal interpretation of strongly agree. Then, the statement:

- The teacher reinforces non-stereotypic behavior of students and regulates stereotypic behavior of students gets a weighted mean of 3.92 with a

**TABLE 7.** The perceptions of future educators on gender equality in terms of evaluation

Evaluation	SA	A	D	SD	SD	WM	Verbal Interpretation
	4	3	2	1			
1. Male and female students perform equally well in learning outcome measures.	105	3	0	0	0.165	3.97	Strongly Agree
2. Objective criteria are used in the evaluation of student performance.	98	4	1	0	0.274	3.94	Strongly Agree
3. Gender-neutral language and representation is a criterion for learning evaluation.	102	6	0	0	0.230	3.94	Strongly Agree
4. The learning evaluation also contains assessment of gender competence.	103	5	0	0	0.211	3.95	Strongly Agree
5. Feedback and learning evaluation methods are reflected to ensure that prejudice and stereotypes are not adopted.	102	6	0	0	0.230	3.94	Strongly Agree
6. Female and male participants equally bring in their opinion to the evaluation of teaching (questionnaire, discussion, etc.	103	5	0	0	0.211	3.95	Strongly Agree
7. Relevant characteristics of the course (e.g. learning activities, teacher-student interaction, use of technology, practical relevance of content, perceived learning outcomes, etc.) are participated in and analyzed by both male and female students.	101	5	2	0	0.338	3.92	Strongly Agree
8. Gender-equality evaluation assessments are applied during the course and consequences are derived and implemented.	100	8	0	0	0.263	3.93	Strongly Agree
9. Teaching evaluation data are revealed and analyzed by both female and male students.	101	7	0	0	0.247	3.94	Strongly Agree
10. The teacher self-evaluates gender equality of his or her teaching through teaching activities, interaction with students, own stereotypes, etc.	105	2	0	1	0.317	3.95	Strongly Agree
<b>OVERALL:</b>					<b>0.219</b>	<b>3.94</b>	<b>Strongly Agree</b>

verbal interpretation of strongly agree. Next, Table 6 shows the perceptions of future educators on gender equality in terms of subject matter. Apparently, the statement:

- Both male and female authors of books and articles are considered gets the highest weighted mean (3.98) with a verbal interpretation of strongly agree. It is followed by the statement:
- Students reflect about gender-related structural dependencies or constraints within their work environment. With a weighted mean of 3.97 and a verbal interpretation of strongly agree. The 98 statement is further followed by:
- Both male and female researchers are considered with a weighted mean of 3.95, and a verbal interpretation of strongly agree. It is later followed by:
- The relation between teaching content and gender dimension (general theory, 103 stereotypes, inequalities, etc.) is revealed 104 with a weighted mean of 3.92 and a verbal interpretation of strongly agree. Then, 105 the statement:
- Students reflect about gender-related structural dependencies or constraints within their domain gets the lowest weighted mean (3.90) with an interpretation of strongly agree.

Furthermore, Table 7 shows the perceptions in terms of evaluation. It appears that the statement:

- Male and female students perform equally well in learning outcome measures gets the highest weighted mean (3.97) with a verbal interpretation of strongly agree. It is followed by the statements:

**TABLE 8.** Independent samples t-Test

	WM		Tabular Value	df	P-Value	Decision	Conclusion
	Male	Female					
Learning Materials	3.91	3.97	-1.256	66.352	.213	Accepted H <sub>0</sub>	Not Significant
Methods and Strategies	3.91	3.97	-1.318	63.967	.192	Accepted H <sub>0</sub>	Not Significant
Subject Matter	3.94	3.95	-.299	106	.765	Accepted H <sub>0</sub>	Not Significant
Evaluation	3.92	3.96	-.992	106	.324	Accepted H <sub>0</sub>	Not Significant

The learning evaluation also contains assessment of gender competence

- Female and male participants equally bring in their opinion to the evaluation of teaching (questionnaire, discussion, etc.)
- The teacher self-evaluates gender equality of his or her teaching through teaching activities, interaction with students, own stereotypes, etc.

With a weighted mean of 3.95 and a verbal interpretation of strongly agree. These are further followed by:

- Objective criteria are used in the evaluation of student performance
- Gender-neutral language and representation is a criterion for learning evaluation
- Feedback and learning evaluation methods are reflected to ensure that prejudice and stereotypes are not adopted
- Teaching evaluation data are revealed and analyzed by both female and male



Students.

With a weighted mean of 3.94 and a verbal interpretation of strongly agree. These statements are later followed by:

- Gender-equality evaluation assessments are applied during the course and consequences are derived and implemented

with a weighted mean of 3.93 and a verbal interpretation of strongly agree. Then, the statement:

- Relevant characteristics of the course (e.g. learning activities, teacher-student interaction, use of technology, practical relevance of content, perceived learning outcomes, etc.) are participated in and analyzed by both male and female students

gets the lowest weighted mean (3.92) with an interpretation of strongly agree.

The last table (Table 8) shows that when it comes to learning materials, the  $t$ -137 value is at -1.256 and the  $p$ -value is at .213. Since the  $p$ -value is greater than the 138 assumed level of significance (.05), the proposed hypothesis is therefore accepted. It implies that there is no significant difference between the perceptions of male and female students on gender equality in terms of learning materials. In terms of methods and strategies, the  $t$ -value is at -1.318 and the  $p$ -value is at .192. Since the  $p$ -value is greater than the assumed level of significance (.05), the null hypothesis is hence accepted. It indicates that there is no significant difference between the perceptions of male and female students on gender equality in terms of methods and strategies. In terms of subject matter, the  $t$ -value is at -.299 and the  $p$ -value is at .765. Since the  $p$ -value is greater than the assumed level of significance (.05), the null hypothesis is thus accepted. It implies a discovery that there is no significant 148 difference between the perceptions of male and female students on gender 149 equality in terms of subject matter. In terms of evaluation, the  $t$ -value is at -.992 and the  $p$ -value is at .324. Since the  $p$ -value is greater than the assumed level of significance (.05), the proposed hypothesis is therefore accepted, meaning that 152 there is no significant difference between the perceptions of male and female students on gender equality in terms of evaluation.

### CONCLUSION

The study has revealed that in all four factors, i.e. learning materials, methods and strategies, subject matter and evaluation, respondents lean to strongly agree to the listed statements, which implies that gender equality is strongly manifested. It also reveals that there is no significant difference between the perceptions of the male and female respondents on gender equality in terms of these four factors. Thus, it is recommended that teachers should continue to be aware and mindful of gender equality with the classrooms and during the classes.

### LIMITATIONS AND RECOMMENDATIONS

This study has some limitations and scholars are advised to cater these limitations in future studies. For instance, this study took place in a single university over a limited sample. Thus, the results cannot be generalized for a larger population. Thus, more research in different universities is encouraged.

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— This article does not have any appendix. —