Engagement and Satisfaction in Technology for Teaching and Learning: A Flexible Learning Assessment of Pre-Service Teachers

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Abstract. This study assessed the engagement and satisfaction in Technology for Teaching and Learning (TTL) of the pre-service teachers through the flexible learning modality. The descriptive correlation research design was employed. The research instrument used in the study was adapted from Gray & Diloreto (2016). The data were treated and analyzed. The descriptive statistics was used to determine the students' engagement and assess their satisfaction in TTL The Pearson Coefficient Binomial Correlation was utilized to find out if there is a significant relationship between engagement and satisfaction of the pre-service teachers.The study results showed that the engagement and satisfaction of pre-service teachers in TTL are mostly engaged and strongly satisfied, respectively. There is a significant relationship between engagement and satisfaction of the pre-service teachers. It indicates a fairly strong positive correlation. Moreover, it is recommended to assess the said factors in face-to-face classes.

Keywords: engagement, satisfaction, technology for teaching and learning

1   Introduction

In the technological landscape of teaching and learning, various education sectors continue to assess the variables that may affect learning. With the pandemic confronting the system last time, flexible learning has been the best option for universities, including Central Mindanao University, in providing quality education and taking advantage of technological tools for the delivery of instruction.

As mentioned in the study [1], student engagement is an important ingredient for teaching and learning that has boundless advantages. It is also tagged that engagement alleviates students' learning performance [2]. Meanwhile, satisfaction is a key indicator for learning to take place and is suited to evaluate a factor for a subject [3]. It is also taken into account to reinforce the significance of students' satisfaction in the quest for quality learning [4].

In the aspiring educators, the pre-service teachers that continue to delve and embrace the competence in technology, particularly in Technology for Teaching and Learning, their capabilities matter in the face of future education. Henceforth, the present study

was undertaken to assess the engagement and satisfaction of pre-service teachers in Technology for Teaching and Learning through flexible learning.

2   Objectives of the Study

The study was designed to assess the engagement and satisfaction of pre-service teachers in Technology for Teaching and Learning of pre-service teachers (PSTs) of Central Mindanao University, through a flexible learning modality.

Specifically, this study aimed to:
1. determine the engagement of PSTs in TTL through flexible learning;
2. assess the satisfaction of PSTs in TTL through flexible learning; and
3. find out if there is a significant relationship between the engagement and satisfaction of PSTs.

3   Materials and Methods

Respondents. The respondents of this study were pre-service teachers enrolled in Technology for Teaching and Learning, under the same instructor. There were 49 females, and 21 males, responded and answered the online questionnaire.

Research Design. The descriptive correlation research design was employed to determine engagement and satisfaction and find out if there is a significant relationship between the engagement and satisfaction of pre-service teachers in Technology for Teaching and Learning through flexible learning.

Instrument. The research instrument that was adapted with consent in the study was from [5] Gray & Diloreto (2016). It underwent pilot testing with a Cronbach reliability coefficient of 0.942. In the instrument used in this research, five (5) and six (6) indicators comprised engagement and satisfaction constructs, which have a 6-point Likert scale. Below is the scoring guide.

Table 1. Scoring guide for engagement and satisfaction of pre-service teachers in TTL

Likert Scale	Interval	Qualitative Description	
		Engagement	Satisfaction
1	1.00-1.82	Strongly Not Engaged	Strongly Not Satisfied
2	1.83-2.65	Mostly Not Engaged	Mostly Not Satisfied
3	2.66-3.48	Slightly Engaged	Slightly Satisfied
4	3.49-4.31	Moderately Engaged	Moderately Satisfied
5	4.32-5.14	Mostly Engaged	Mostly Satisfied
6	5.15-6.00	Strongly Engaged	Strongly Satisfied

Statistical Analysis. The data were treated and analyzed using descriptive statistics and Pearson Coefficient Binomial Correlation. The descriptive statistics was used to determine and assess the engagement and satisfaction of pre-service teachers in TTL through flexible learning. The Pearson Coefficient Binomial Correlation was utilized to find out if there is a significant relationship between the engagement and satisfaction of PSTs.

4 Results

4.1 The Engagement of Pre-service Teachers in TTL

Table 2. The engagement of pre-service teachers in TTL through flexible learning.

No.	Statements	Mean	SD	Qualitative Interpretation
1.	I frequently interacted with my teacher on this subject.	4.76	1.13	Mostly Engaged
2.	I discussed what I learned in the subject outside of class.	4.84	0.96	Mostly Engaged
3.	I completed my readings as assigned during the subject.	4.90	0.87	Mostly Engaged
4.	I participated in synchronous and/or asynchronous chat sessions during the course.	5.04	1.00	Mostly Engaged
5.	I was actively engaged in the activities required in the course.	5.27	0.85	Strongly Engaged
	Overall Mean	4.96	0.74	Mostly Engaged

Table 2 presents a summary of the descriptive statistics of the engagement of the pre-service teachers. The indicator of "I was actively engaged in the activities required in the course.", had the highest mean score, and that pre-service teachers were strongly engaged. Although the item "I frequently interacted with my teacher of this subject.", had the lowest mean score, but still pre-service teachers were mostly engaged. Finally, it is also shown that the overall mean of the engagement construct is 4.96, that is, pre-service teachers were mostly engaged.

4.2 *The satisfaction of pre-service teachers in TTL*

Table 3. The satisfaction of pre-service teachers in TTL through flexible learning

No.	Statements	Mean	SD	Qualitative Interpretation
1.	I am satisfied with my overall experience in this course.	5.43	0.71	Strongly Satisfied
2.	I would recommend this subject to other students.	5.59	0.63	Strongly Satisfied
3.	I am satisfied with the level of student interaction that occurred in the subject.	5.36	0.80	Strongly Satisfied
4.	I am satisfied with my learning in the subject.	5.41	0.75	Strongly Satisfied
5.	I am satisfied with a teacher of the subject.	5.60	0.60	Strongly Satisfied
6.	I am satisfied with the content of the subject.	5.46	0.74	Strongly Satisfied
	Overall Mean	5.47	0.61	Strongly Satisfied

Table 3 depicts a summary of the descriptive statistics of the satisfaction of the pre-service teachers in TTL1. Among the indicators, "I am satisfied with teachers of the subject" had the highest mean score, which denotes that pre-service teachers were strongly satisfied. Also, the last item was "I am satisfied with my learning in the subject.", with a mean of 5.41 but still expresses strongly satisfied. As presented in the table, it has an overall mean of 5.47 which is classified as strongly satisfied.

4.3 *Correlation of Engagement and Satisfaction*

Table 4. Binomial Correlation Summary Table comparing the engagement and satisfaction of pre-service teachers in Technology for Teaching and Learning through a flexible learning modality.

Variables		Result
Engagement vs.	Pearson Correlation	.62**
Satisfaction	Sig. (2-tailed)	.000
	N	70

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 depicts a summary of the descriptive statistics of the satisfaction of the pre-service teachers in TTL1. Among the indicators, "I am satisfied with teachers of the subject" had the highest mean score, which denotes that pre-service teachers were strongly satisfied. Also, the least item was "I am satisfied with my learning in the subject.", with a mean of 5.41 but still expresses strongly satisfied. As presented in the table, it has an overall mean of 5.47 which is classified as strongly satisfied.

The result presented in Table 4 shows the relationship between the engagement and satisfaction of the pre-service teachers in Technology for Teaching and Learning through a flexible learning modality. The Pearson Correlation Coefficient is 0.62. The

relationship it exhibits is a fairly strong positive correlation. This relationship is significant at a 0.01 level of significance.

5   Discussion

Indeed, as manifested in the result, engagement and satisfaction are key factors in learning. It also expresses a positive correlation, and that there is a significant relationship between the variables in Technology for Teaching and Learning. In the case of learning, the result of the study may substantiate that engagement and satisfaction emerged as the course is about technology and that it is still relevant, although it is through flexible learning and or online learning.

The study corroborates the study [4], where satisfaction favors online learning favors to satisfaction and which also denotes convenience on the part of the learners. In the case of engagement, it supports [6] in providing the myriad engagement opportunities that lead to a rich and interactive higher education experience, like in Technology for Teaching and Learning. Furthermore, the positive correlation between engagement and satisfaction suggests that consider these key factors in designing courses in the quest for quality learning.

6   Conclusions

Based on the results and findings of the study, the following conclusions were made:

1. The engagement of pre-service teachers in Technology for Teaching and Learning is mostly engaged.
2. The satisfaction of pre-service teachers in Technology for Teaching and Learning in a flexible learning modality is strongly satisfied.
3. There is a significant relationship between the engagement and satisfaction of pre-service teachers in TTL through a flexible learning modality.

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