Online Student Engagement and Sense of Community in a Philippine Online University

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Abstract

This study aimed to consider the correlation between student engagement and sense of community through the partial application of the online student engagement scale (OSE) and classroom community scale (CCS) as designed by Dixson (2015) and Rovai (2002), respectively. A total of 67 students from two classes in the Bachelor of Arts in Multimedia Studies (BAMS) program at the University of the Philippines Open University (UPOU) participated in the study, whose input revealed a correlation coefficient of 0.442. This means that there is a moderate correlation between the two attributes. The study also revealed that, based on the two classes attended by different sets of students that as far as the participants are concerned, the level of engagement and sense of community stays the same over time. It is, however, important to note that there are underlying factors affecting respondents' perceptions due to the COVID-19 pandemic as well as a series of natural calamities, which occurred during the academic year in which this study was conducted. The relatively low turnout of responses in the survey may also have affected the findings and subsequent analysis. Regardless of the underlying factors, certain areas can be improved in order to foster engagement, mainly through encouraging interaction through various communication and social media platforms. Data also suggests that official support from the university would also be of benefit. It is recommended that future studies build on the findings of this paper for a wider and deeper understanding of the issues that were discussed.

Introduction

Understanding student engagement and learning how to enhance is key to building a greater sense of community. In the time of the pandemic, such sense of community becomes even more important for students both academically and socially.

The so-called new normal (Research Institute for Tropical Medicine, 2020) brought about by the COVID-19 pandemic had heavily disrupted the education sector across the globe. The Philippines resorted to an abrupt shift to online and blended learning (Custodio, 2020) raising levels of anxiety among many students and teachers, not just in the Philippines, but for much of the world. And it is believed that this is where a sense of community may be important. Local and global events may have exacerbated feelings of isolation and the mental health issues that stem from it. It is therefore important to gauge the situation through first-hand accounts in order to manage the issue more effectively.

Fostering learning communities or communities of practice within the bounds of an online university in the Philippines has been challenging. Librero (2019) has directly faced some of these challenges during his attempts to build and facilitate community-driven projects. A higher level of engagement among students may be key to greater success in building and facilitating

community-driven projects. However, gauging online student engagement at the University of the Philippines Open University (UPOU), particularly in the Bachelor of Arts in Multimedia Studies (BAMS) program, has been largely anecdotal. Whatever adjustments made by teachers may be driven by intuition and personal experience, as opposed to a comprehensive analysis at the university or at the program levels.

Objectives

This study intended to gain first-hand information and insight from students in order to achieve the following objectives:

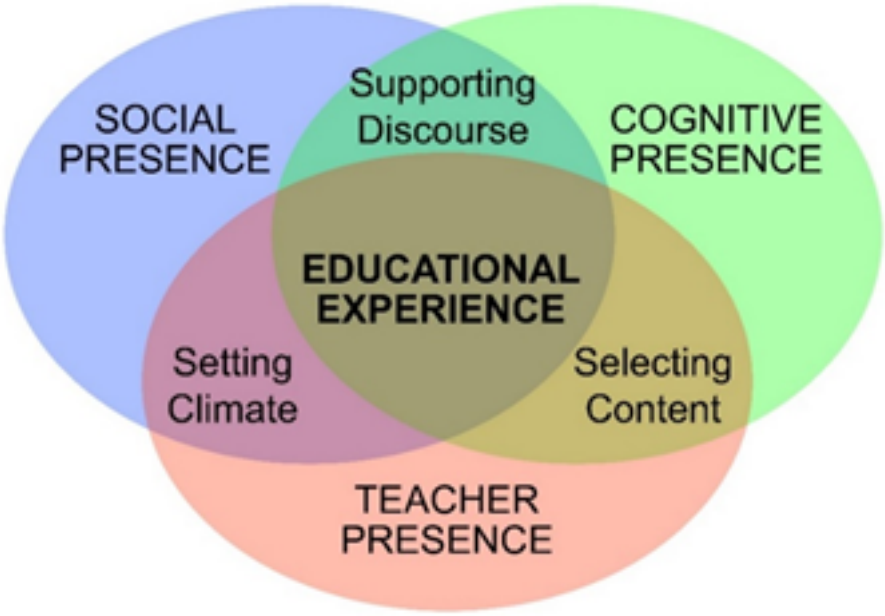
- Determine whether or not there is a correlation between how engaged students are with their sense of community;
- Determine if the length of residency has any effect on engagement and community; and,
- Propose solutions and strategies on how student engagement can be improved given available tools.

Review of Related Literature

Young and Bruce (2011) defined student engagement as the interest and motivation students have in their own learning of course content. While seemingly straightforward, there is much to deconstruct in order to better understand how student engagement works. The concept of student engagement is largely influenced by social constructivism, which essentially states that learning is facilitated through interaction and collaboration. This can perhaps start to explain the assertion that a sense of community has a significant impact on engagement. This also establishes a connection between student engagement and the Community of Inquiry (CoI) model (Garrison, Anderson, & Archer, 2000) which posits that a learning medium is composed of three components (social, cognitive, and teacher presence) which, when working together, results into an educational experience (Figure 1).

Figure 1

Community of Inquiry (COI) framework (Garrison, Anderson, & Archer, 2000)



This model has been expanded upon by other authors. Meyer's version (2014) suggests that the educational experience explicitly translates into a student's learning experience. However, the process does not end there. Instead, there must be retention of what was learned, which itself is subject to several factors. This model, however, is vague with regards to what these factors are, exactly. Shea et al. (2012) devised their own revision to the CoI Model by inserting learning presence as a new component. "Learning presence" in the model indicates the *exercise of agency and control rather than compliance and passivity and more fully articulates popular beliefs about the importance of self-direction in online environments.*

Measuring Student Engagement

There are a number of known ways to gauge student engagement. As shown in Figure 2, student engagement in traditional classrooms involve affective and behavioral components: skills, emotion, participation, and performance. But while online classrooms differ in the method of delivery, they can essentially have the same components of engagement (Dixson, 2015). Each component is manifested by certain behaviors of students. The National Survey of Student Engagement (NSSE, 2013) offers a similar framework which includes four themes —academic challenge, learning with peers, experiences with faculty, and campus environment, each with multiple indicators used for measuring the level of engagement.

Figure 2

Affective and behavioral components of engagement. (Dixson, 2015)

Fredricks and McColskey (2012) compiled a comprehensive list of methods for gathering data, which were classified as follows:

- Student self-report – students are provided with items reflecting various aspects of engagement and select the response that best describes them.
- Experience sampling – a method that constricts self-reporting to specific times, thereby allowing for the data collected to be from that very moment rather than a retrospection which most self-reporting methods tend to be.
- Teacher ratings of students – making use of checklists from a teacher perspective.
- Interviews – directly meeting with individuals for asking pre-designated questions, which allows for a more open-ended discussion.
- Observations – scrutinizing student behavior within specified time frames.

Fredricks and McColskey (2012) asserted that student self-reporting is the most common method used when measuring student engagement, and it typically covers three aspects— behavioral, emotional, and cognitive engagement. While not immediately apparent, this fits with Dixson's (2017) framework, as behavioral engagement covers participation, while cognitive engagement is concerned with how motivated a student is with regards to improving academic performance. While it can be argued that most established methods can also be applied in an online setting, methods designed specifically for it are relatively more difficult to come by.

The social media platform Facebook has also been used as the basis to measure student engagement. Magno (2016) related engagement in Facebook posts. In the context of a discussion within a learning management system, it was asserted that engagement could be expressed as:

$$MPER = \frac{(CL + C + L)}{R}$$

Where:

MPER = Moodle post engagement rate
CL = Clicks
R = Reach (number of people who saw the post)
C = Comments
L = Likes

Given pre-defined weights for clicks, comments, and likes, it would be possible to derive an aggregate of engagement. However, the problem with this equation is that it cannot account for the outcomes behind the clicks and likes. It also cannot directly account for the quality of the comments, which by themselves could also be a measure of engagement. Without additional conditions, there is literally no distinction between a single word post, and an exposition on the topic discussed. Halpin, von Davier, Hao, and Liu (2017), applied what is called the Hawkes process. In a nutshell, a Hawkes process is a mathematical model where the occurrence of an event increases the probability of another event (Obral, 2016). The feasibility of adoption within the context of measuring student engagement was established. However, the problem of accounting for the content of messages was also noted, thus exhibiting the same weakness as with the Facebook model.

Dixson (2015) made use of what is called the online student engagement (OSE) scale, which takes cues from existing measurement methods to develop a method that accounts for all aspects of the model shown in Figure 2. The OSE is a self-reporting method, which separates it from Magno's (2016) and Halpin et al.'s (2017) methods. While it does have potential bias issues and may have trouble accounting for contextual factors, the OSE does not explicitly factor in learning artifacts such as posts and comments and thereby does not carry the weakness of not accounting for their quality in the model it follows.

Measuring Sense of Community

Sense of community has been broadly defined as an acknowledged interdependence with others. McMillan and Chavis (1986) added precision and detail to the concept, proposing that sense of community has four elements: 1) membership – feeling of belonging, 2) influence, the belief of being able to make a difference, 3) reinforcement – integration and fulfillment of needs, and 4) shared emotional connection. There are a handful of ways to measure a sense of community. The Sense of Community Index (SCI) was founded on these four elements and has been applied to

several types of communities. Chipuer and Pretty (1999) acknowledged the SCI's usefulness and theoretical grounding but raises the possible need for considering the physical environment as a factor. However, Rovai (2002) developed a means of measurement tailored for academic settings called the Classroom Community Scale (CCS). The CCS is seen as a viable instrument for gauging connectedness and learning for a wide range of populations, including that of residential-type institutions.

Theoretical Framework

This study draws from the COI Framework (Garrison, Anderson, & Archer, 2000) and Dixson's (2015) framework of student engagement and how it is governed by affective and behavioral components (Figure 2). The frameworks are expanded upon through the idea that student engagement is the related sense of community. Furthermore, it is also hypothesized that both engagement and sense of community are influenced by the environment in which students and teachers reside. Chipuer and Pretty (1999) argued as much, albeit with physical settings in mind. The OSE and CCS scales themselves were designed with online environments in mind. This study, however, explores the possibility that online learners are subject to both the online and physical environments, especially in extraordinary times such as a global pandemic.

Methodology

Setting and Participants

The study involved two classes within the Bachelor of Arts in Multimedia Studies (BAMS) program at UPOU. BAMS is a fully online undergraduate degree program populated by students with diverse age groups and backgrounds who live inside and outside the country. Two classes were chosen to be part of the study— MMS 100 (Introduction to Multimedia), and MMS 175 (Videography in Multimedia). The former is a course typically taken during a student's first year of residency. The latter, on the other hand, is typically taken on a student's third year at the earliest, depending on his or her pace. A BAMS class typically follows a 10- to 12-week schedule. Students participated in the study by the end of the second month of their classes.

UPOU's learning management system is an amalgam of different platforms. At the core is a Moodle-based course management system and an instance of Google's G Suite for Education. Zoom has also been officially adopted as the university's video conferencing platform. While experimentation with other platforms has been tolerated and in some cases even encouraged, there were no other third-party applications officially sanctioned by the university for use as learning tools and platforms at the time of the study.

Data Gathering

This study adopted elements of the Online Student Engagement (OSE) scale and Classroom Community Scale (CCS), namely their 18- and 20-item Likert scales as employed by Dixson (2015) and Rovai (2002), respectively. Both scales ask respondents various questions regarding perceptions about themselves, their peers, teachers, and the environment they reside in. The two scales were deployed as an online questionnaire using Google Forms under the G Suite for Education instance managed by the University of the Philippines System.

Students were also asked to answer additional items regarding external factors that may have affected their engagement in class. The ongoing academic year as of this writing has been significantly affected by the COVID-19 pandemic, as well as a series of natural calamities. Asking students whether or not these may have had an effect on them further contextualized their responses to the items in the Likert scales. An open-ended question as to whether or not they wanted to add anything they felt were relevant was also asked to catch anything that the survey could have missed.

Responses are labeled according to class (they are either from MMS 100 or MMS 175). However, they remain anonymous with no sensitive information required. Furthermore, answering the questionnaire was voluntary. Appendix 1 shows the contents of the Google Forms questionnaire.

Analysis

In order to address the first objective, through the OSE and CCS scales, this study attempted to look for any correlation between a student's engagement and a perceived sense of community. For the OSE, each item was assigned a value according to the respondents' answers, scaled between zero (not at all characteristic of me) and four (very characteristic of me) in order to be commensurate to the level of engagement claimed. Half of the twenty items in the CCS were treated the same way, with zero representing strong disagreement up to four, representing strong agreement. The other ten items, having negative statements, had values reversed, with a strong agreement and strong disagreement being equivalent to zero and four, respectively.

For the second objective, a one-way analysis of variance (ANOVA) was conducted for the results of each scale. This was meant to determine whether or not there are significant differences between the results from the two different classes representing different lengths of residency in the BAMS program. The third objective was addressed through the analysis of descriptive statistics derived from the answers to the items in the OSE and CCS scales, as well as additional comments possibly shared by respondents. These were conducted with respect to the methods prescribed by Creswell and Guetterman (2019) regarding the collection, analysis, and interpretation of qualitative data.

Limitations of the Study

Due to constraints in the level of access and time, this study was only able to abide by two of the three-phase survey administration procedure as prescribed by Cresswell and Guetterman (2019, p. 400). After an initial invitation to answer the survey, there was only time for one follow-up within four weeks instead of two follow-ups within a six-week time frame. Furthermore, while this study adopted both the OSE and the CCS scales, it did conduct other measurements of engagement and community in parallel to check for their accuracy. Therefore, it was assumed that the assertion that the accuracy of the two scales is adequate. With regards to correlation, while analysis can establish its existence between the OSE and CCS scales, they cannot provide information on the nature of the relationship between engagement and community. There is not enough to determine whether engagement is dependent on the community, or if it's the other way around, or if there is a synergy between them.

Ethical Considerations

This study complies with the ethical standards set by the University of the Philippines Open University. As partial fulfillment to the E-Research and Technology Enhanced Learning Program

where the author was enrolled in at the time of writing, the study was also granted the ethical approval of Lancaster University. The study was conducted with the informed consent of all study participants. No sensitive information was drawn from the participants.

Results and Discussion

Descriptive Statistics

A total of sixty-seven students responded to the survey, sixty of which are from MMS 100 and seven from MMS 175. Table 1 shows the descriptive statistics for OSE and CCS by class and total participants.

Table 1

Descriptive statistics by class and total participants

	OSE			CCS		
	MMS 100	**MMS 175**	**Total**	**MMS 100**	**MMS 175**	**Total**
Responses (n)	60	7	67	60	7	67
Mean	2.608	2.651	2.613	2.297	2.429	2.311
Std. Error	0.071	1.104	0.064	0.065	0.176	0.061
Std. Dev.	0.550	0.275	0.527	0.504	0.466	0.498
Minimum	1.611	2.222	1.611	1.100	1.800	1.100
Maximum	3.889	3.111	3.889	3.600	2.950	3.600

Respondents gave an average answer of 2.613 for each item on the OSE scale. This implies that students in both classes exhibited fair to moderate levels of engagement. On the other hand, as far as the sense of community is concerned, with a mean score of 2.311 for items in the CCS, students are apparently more or less neutral. This can imply that while it is not discounted that there is some level of connectedness or sense of belonging among students and teachers, students might not definitively feel there is a community at large. A closer inspection of the responses to the individual items provides a more complete picture. Looking at the average scores of each item reveals other interesting details. With the OSE, items referring to self-motivation tend to get higher scores, such as *putting forth effort* (3.030), *really desiring to learn the material* (2.970), or *finding ways to make the course interesting to me* (2.940). However, students tended to give themselves lower scores on matters relating to interacting with others, like *having fun in online chats, discussions, or via email with the instructor or other students* (1.910) or *getting to know other students in the class* (1.851). The results from the CCS seem to relate to this observation. While students typically believed that the course they were enrolled in does *promote a desire to learn* (3.217), hardly anyone believes that t*heir courses are like a family* (1.801). There is almost definitely *no sense of interdependence* (0.746). While the respondents generally agree that they are *encouraged to ask questions* (2.597) and that it's not *hard to get help when they have questions* (2.298), they express reluctance to do so, *feeling uneasy exposing gaps in their understanding* (1.805).

Correlation between Student Engagement and Sense of Community

Results of the correlation analysis between the OSE and CCS are shown in Table 2 and Figure 3. At 0.422 with statistical significance at α=.001, the correlation coefficient indicates that there is a moderate positive relationship between students' level of engagement and sense of community in classes. This corroborates the assertion that student engagement and a sense of community

are related to each other. However, the analysis cannot determine causality. The data on hand cannot indicate which depends on the other or if there is a synergy between the two.

Table 2

Correlation between OSE and CCS results

			n	Pearson's r	p
OSE	-	CCS	67	0.422***	< .001

* p < .05, ** p < .01, *** p < .001

Effect of Residency Length

Results for the analysis of variance (ANOVA) test for both OSE and CCS are shown in Tables 3 and 4, respectively. With an F = 0.040 and P-value = 0.842, it can be definitively said that in the case of this study, no statistical significance was found in the difference between the OSE scores of the two classes. It means that among the respondents, there is no apparent increase or decrease in engagement the longer students stay in the BAMS program. While there is a nominal difference between mean scores of MMS 100 and MMS 175 students in the CCS with the latter being higher, analysis shows no statistical significance.

Figure 3

Scatter plot for correlation between OSE and CCS results

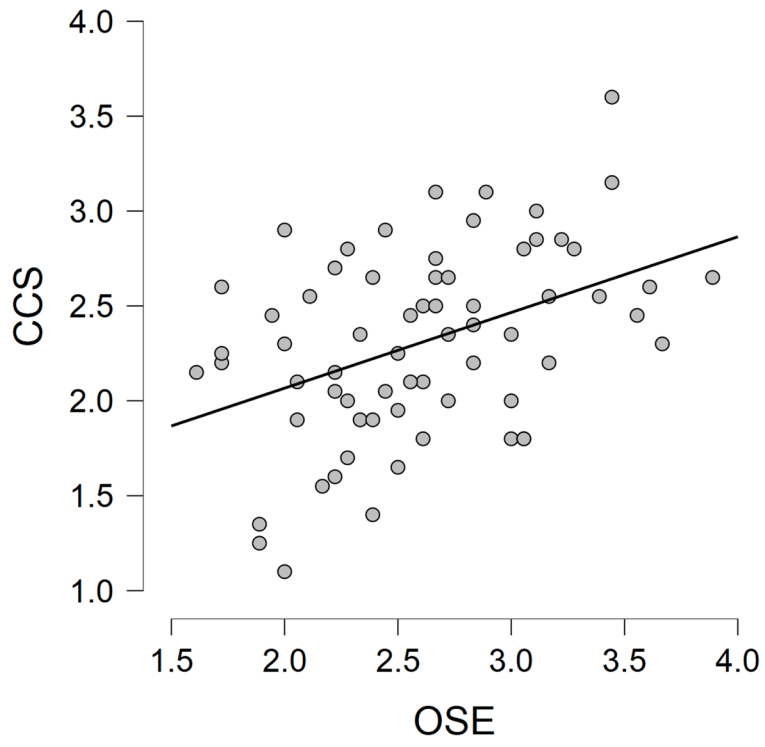


Table 3

Analysis of variance (ANOVA) test for the OSE scale

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.011	1	0.011	0.040	0.842	3.989
Within Groups	18.310	65	0.282			
Total	18.321	66				

Table 4

Analysis of variance (ANOVA) test for the CCS

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.108	1	0.108	0.430	0.514	3.989
Within Groups	16.276	65	0.250			
Total	16.384	66				

Other Factors Affecting Results

The MMS 100 and MMS 175 classes covered by the study are populated by 169 and 75 students, respectively. This leads to the fact that the online survey yielded a response rate of 35.50% in MMS 100 and 9.33% in MMS 175. According to Creswell and Guetterman (2019), survey studies in educational journals typically yield a response rate of 50% or better. Nulty (2008) echoes a similar finding, at least for paper-based surveys (56%), but also found a substantial difference when it comes to online response rates, which was 33%. With respect to this study, it can therefore be argued that while the response rate in MMS 100 can be deemed acceptable, the same is not necessarily true for MMS 175. This raises the concern of the possibility of response bias (Creswell and Guetterman, 2019, p. 400). Without further study, whether this leads to the findings being more positive or negative than what it may be in reality can only be speculated upon. Still, it is believed that it would be reasonable to surmise that since participation in the survey can be viewed as a means of engagement itself. Therefore, more likely than not, a low response rate could mean that the level of student engagement in MMS 175 is lower than what the survey results might suggest.

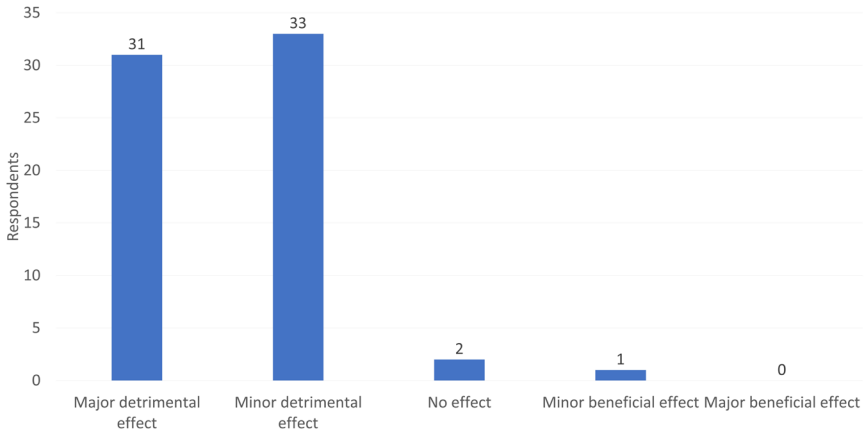
While not explicitly declared by literature on hand, it can be argued that both the OSE and CCS implicitly assume that participants are responding under circumstances deemed normal. They do not account for extraordinary factors. As this study was conducted in an academic year that has endured the COVID-19 pandemic, as well as a series of natural calamities, it was deemed necessary to find out from respondents whether or not these events have had any effect on their sentiments regarding engagement and community.

Figure 4 shows that out of the 67 respondents, all but three felt there was a detrimental effect with regards to their engagement in class. Thirty-one of them opined that there was a major detrimental effect. While not all respondents elaborated on their opinions, those who did indicate two general types of issues. The first type is technical-related, such as poor Internet connectivity, which became more pronounced in certain areas due to the surge in nation-wide use as people were confined to their own homes, as well as power failures, mainly caused by the series of

storms and typhoons that beset the Philippines in the latter half of 2020. The other type is related to mental and emotional well-being, as the pandemic brought about drastic and jarring changes in lifestyle which students found stressful. The single respondent who claimed a beneficial effect to engagement did not elaborate his or her position.

Figure 4

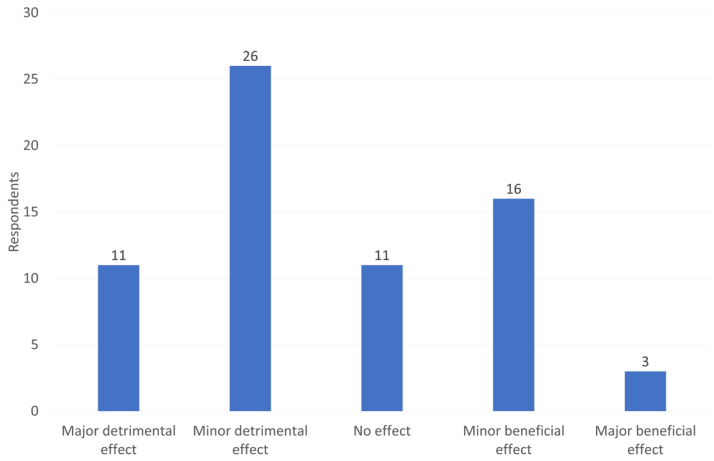
Respondents' perceived effect of external factors such as the COVID-19 pandemic and natural calamities on their engagement



Respondents are, however, more divided with regards to their sense of community, as Figure 5 would suggest. While 37 felt that it also degraded in the face of immediate realities, 11 believed there was no effect, with another 19 who believed that there was a beneficial effect. One of these more optimistic respondents remarked that, "having to adjust to a new learning method is difficult enough as it is. However, my perception of my peers and my professors (at least, for a few) has upped beneficially. Their willingness and effort to learn and teach amid this crisis motivate me to work even harder." Another respondent cited that "I have a class where I meet up with my teammates once to twice a week via Zoom/Discord. And that has provided some stability and support." These are indications of active adjustments made by students and teachers that have started to pay off. While students do continue to struggle in the face of the current adversities, some have made strides through establishing stronger connections amongst each other, leading to an improved sense of community. That being said, another respondent who did say there has been a detrimental effect to the community stated that while there were such movements among students, "it was quite disheartening to find out that the university did not have any official organizations like other UP constituents especially as this is my first time in a college environment. I believe this contributes a lot to a sense of community as I used to join multiple clubs and organizations in my previous schools and have found myself getting to know more people this way." While students and teachers taking initiative to connect are noteworthy, others may still be looking for university-sanctioned support.

Figure 5

Respondents' perceived effect of external factors such as the COVID-19 pandemic and natural calamities on the community



Possible Means of Improving Engagement

Unfortunately, some issues cannot be directly solved within an online classroom, such as natural calamities, and the pandemic. Disconnection from the Internet will also disrupt any sort of effort done remotely. That being said, other areas can be improved upon through interventions.

While it would be difficult to assess what goes on in other classes without conducting the same survey on them, the data collected from the two classes have been revealing their dynamics. It can be argued that the final item in the CCS scale (I feel that this course does not promote a desire to learn) may as well allude to one of the foundations for a learning experience. There is a relatively strong disagreement (3.269) with the statement among respondents. This can mean that there is strong motivation towards learning. The first item in the OSE scale (putting forth effort) also yielded a high score (3.030), making it consistent with the CCS item score that was just cited. This can mean that the issue is not necessarily building motivation. This may be about harnessing what motivation is already inherent to the students.

Survey items with the lowest mean scores involved interpersonal interaction and communication. In the OSE, "having fun in online chats, discussions, or via email with the instructor or other students" and "getting to know other students in the class" got mean scores of 1.910 and 1.851, respectively.

These were consistent with the lowest among items in the CCS. "I feel that this course is like a family " and "I feel uneasy exposing gaps in my understanding;" both had scores of 1.806. All of these allude to a general hesitation towards being more open on a personal level with peers and teachers. Replies to the open-ended questions in the survey provided clues for addressing this issue. As previously cited, one respondent explicitly identified the extra-curricular use of communication platforms such as Zoom and Discord. Facebook was also being used in a similar manner, which is documented in previous studies as cited in Librero (2019). Furthermore, responses also suggest that a more formal organization among students would help foster a sense of community. As of this writing, UPOU has not officially recognized the existence of any student academic organization.

Clearly, peer interaction should be encouraged. The question is where should boundaries be set, if at all? How can the university decide which platforms or technologies to sanction and how should they be employed? How involved should teachers be? According to Dave (2019), effective faculty participation is a key driving factor towards the success of technology-mediated distance education. However, it is unclear if that extends to activities outside the bounds of official platforms. As evidenced by respondents' feedback, teachers in the two classes are generally well-regarded in terms of being a source of encouragement. However, teacher presence does have an impact on how students behave even outside the online classroom (Librero, 2019). Therefore, it can be argued that while teachers could still have some involvement in fostering community outside the online classroom, spearheading the activity may only lead to the same dynamics as in the classroom. Thus, community building may require significant proactive involvement among students.

The study aimed to provide insights into the reasons behind the apparent habits of students in online classrooms. This study may also shed light on how Asians, particularly Filipinos, navigate through the realities of online learning.

Conclusion and Recommendations

The findings allow this study to conclude that there is indeed a relationship between student engagement and community. The combined results of the OSE and CCS provided a picture of an educational experience as expressed in the Community of Inquiry model. The study also supports the argument that conditions in the physical environment can also have an impact in an online classroom but it cannot be accurately determined to what degree. It may therefore be prudent to study this further should a theoretical framework reflecting this observation continue to be forwarded.

From a practical perspective, this study came to a variety of conclusions stemming from information that may prove valuable moving forward in the handling of classes in the BAMS program. The establishment of a correlation between student engagement and a sense of community can certainly give a more established purpose to community-building efforts in higher education institutions such as UPOU. However, the results of the Likert scales may require additional vetting for future studies. Both OSE and CCS are self-reporting methods that pose certain issues affecting accuracy. As a means of vetting, Dixson (2015), conducted other methods, namely teacher ratings and observations in parallel with the OSE. Rovai (2002), conducted a rigorous series of statistical tests to determine the reliability of the CCS. While there are no definitive reasons to doubt the reliability of the OSE and CCS as applied in this study, the realities influencing this study may warrant an investigation as to whether or not these two scales are reliable as applied.

There are also a number of issues that further work would do well to address. For starters, the low and unbalanced turnout led to a small sample size which could have compromised the accuracy of statistical analysis. Furthermore, the problem of a voluntary and anonymous survey resulting in low turnout might make the study more prone to non-response bias whose implications are potentially critical to a topic such as engagement and sense of community. For example, can it be argued that a non-response means detachment or indifference? And if so, wouldn't it subsequently mean that since only seven people from MMS 175 answered the survey – much fewer than those from MMS 100, it would be reasonable to surmise that sense of community tends to diminish over time and that the respondents are more like outliers who do not represent the majority? In order to address this issue, a more inclusive survey, or employment of additional methods of data collection and analysis may be in order.

While a selection was noted, the items in the OSE and CCS Likert scales may not have been given an in-depth analysis. Beyond its being a data-gathering tool for quantitative analysis, the items from the two scales have the potential to provide a lot of insight with regards to how students behave. Responses to the scales can be a strong basis for formulating approaches and strategies in learning design and teaching online classes at UPOU and other similar institutions.

Ethical Considerations

This study complies with the ethical standards set by the University of the Philippines Open University. As partial fulfillment to the E-Research and Technology Enhanced Learning Program where the author was enrolled in at the time of writing, the study was also granted the ethical approval of Lancaster University. The study was conducted with the informed consent of all study participants. No sensitive information was drawn from the participants.

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Appendix

Study Questionnaire

Part 1: Online Student Engagement*

Read each item carefully and choose the option that most closely indicates how you feel about the course or program. There are no correct or incorrect responses. There is no need to spend too much time on each item, but please respond to all of them.
1 = not at all characteristic of me
2 = not really characteristic of me
3 = moderately characteristic of me
4 = characteristic of me
5 = very characteristic of me

	1	2	3	4	5
1. Putting forth effort					
2. Staying up on the readings					
3. Looking over class notes between getting online to make sure I understand the material					
4. Being organized					
5. Taking good notes over readings, PowerPoints, or video lectures					
6. Listening/reading carefully					
7. Finding ways to make the course material relevant to my life					
8. Applying course material to my life					
9. Finding ways to make the course interesting to me					
10. Really desiring to learn the material					
11. Having fun in online chats, discussions, or via email with the instructor or other students					
12. Participating actively in small-group discussion forums					
13. Helping fellow students					
14. Getting a good grade					
15. Doing well on the tests/quizzes					
16. Engaging in conversations online (chat, discussions, email)					
17. Posting in the discussion forum regularly					
18. Getting to know other students in the class					

*** Note:** *Part 1 adapted from*— Dixson, M.D. (2015). Measuring student engagement in the online course: the online student engagement scale (OSE). *Online Learning Journal, 19* (4). https://files.eric.ed.gov/fulltext/EJ1079585.pdf

Part 2: Sense of Community**

Read each item carefully and choose the option that most closely indicates how you feel about the course or program. There are no correct or incorrect responses. There is no need to spend too much time on each item, but please respond to all of them.

SA = Strongly agree; A = Agree; N = Neutral; D = Disagree; SD = Strongly disagree

	SA	A	N	D	SD
1. I feel that students in this course care about each other					
2. I feel that I am encouraged to ask questions					
3. I feel connected to others in this course					
4. I feel that it is hard to get help when I have a question					
5. I do not feel a spirit of community					
6. I feel that I receive timely feedback					
7. I feel that this course is like a family					
8. I feel uneasy exposing gaps in my understanding					
9. I feel isolated in this course					
10. I feel reluctant to speak openly					
11. I trust others in this course					
12. I feel that this course results in only modest learning					
13. I feel that I can rely on others in this course					
14. I feel that other students do not help me learn					
15. I feel that members of this course depend on me					
16. I feel that I am given ample opportunities to learn					
17. I feel uncertain about others in this course					
18. I feel that my educational needs are not being met					
19. I feel confident that others will support me					
20. I feel that this course does not promote a desire to learn					

**** Note:** *Adapted from*— Rovai, A.P. (2002). Development of an instrument to measure classroom community. *Internet and Higher Education,* 5(2002), 197–211.

Part 3: Additional Leveling

It is definitely a difficult time for everyone. And I would like to acknowledge your willingness to participate here again. But I have a feeling that your answers may have been influenced by external factors. I would like to account for that here.

1 = major detrimental effect
2 = minor detrimental effect
3 = no effect
4 = minor beneficial effect
5 = major beneficial effect

	1	2	3	4	5
Do you feel that recent happenings, particularly the COVID-19 pandemic and natural calamities, have affected your engagement with your courses?					
How about your perception of community with your fellow students and your teachers?					

If you're willing to elaborate on your answers to the two previous questions, I'd be happy to read about it. Please feel free to do so here.

_____

Is there anything else you feel is relevant which I may have missed?

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