Challenges Encountered by Students and Teachers in Using Online Applications as Teaching Modalities

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Abstract— The study was conducted to determine the challenges encountered by students and teachers in using online applications as teaching modalities. Respondents were 23 teachers and 188 students from Palawan State University-Quezon Campus, Palawan, Philippines. Data were analyzed through descriptive statistics such as mean and standard deviation. The data revealed that the primary challenge encountered by most of the students concerning connectivity was poor internet connection. When it comes to accessibility, the main challenge they faced was the struggle of finding additional resources in the internet to help them understand the given learning materials by their professors/ instructors. It was also found out that when it comes to affordability, most of them can afford to buy gadget and load but just wasted a lot of money because the data was not working well. Findings also revealed that when it comes to connectivity, most of the teachers agreed to have problems in coping with unstable internet connection. They moderately agreed to have adaptability struggle and difficulty in explaining the modules online for challenge concerning accessibility. They also agreed to have spent a lot of money in buying load, but the data was not working well as a main challenge they faced for affordability.

Keywords— Challenges, Students, Teachers, Teaching Modalities

I. INTRODUCTION

Technology has played a major role in improving the modern education system at various levels of learning whether it be school, college or university education. Not only has the use of technology increased to make the process of teaching and learning in the classroom more effective, learner centered and outcome focused, but it has also given an impetus to the teachers to use it as a tool to bridge the gap between traditional learning and modern educational requirements for the overall development of the learner (Gupta & Fisher, 2021) [1].

In the Philippines, the use of Information and Communication Technology (ICT) in teaching and learning has become very common these days. Access to information increases the awareness of students, help them increase their thinking and creativity in learning tasks, provide quick access to subject material and engage them in adopting strategies which can help in maximizing the quality of learning. On the other hand, technology can also be used to distract students. Technical tools like laptops and mobile phones can distract students from their learning activity and cause disruption to classroom activity, if not used properly.

Many Filipino students feel exhausted with the conduct of online classes. Students feel frustrated and anxious mainly because of an overwhelming increase in academic workload and unstable internet connectivity that hampers their participation in online classes. Students also lost peer support while others find it difficult to learn their lessons by themselves (Bernardo, 2020) [2].

In Quezon, Palawan, there were many students who were struggling in using online applications, especially in the tertiary level. Students are having a hard time in understanding the lessons given online by their professors and instructors, and complain about the internet connection in their areas. Just like students, teachers are also struggling in using online applications for almost the same reasons. This study was conducted to identify the real challenges faced by students and teachers in using online applications as teaching modalities.

II. METHODOLOGY

This study followed the quantitative approach using a descriptive research design.

This study was conducted at Palawan State University Quezon Campus, Palawan, Philippines. A survey questionnaire was used to gather the necessary data from the respondents who were 188 students and 23 educators of the mentioned institution. The questions were focused on the challenges that the students and teachers had encountered in using online applications as teaching and learning modalities

The statistical tools used in organizing, analyzing, and interpreting the gathered data were mean and standard deviation.

Standard deviation was used to determine the dispersion of the scores, while mean was utilized to describe the average responses of the respondents.

III. RESULTS AND DISCUSSION

Legend

Descriptive Interpretation	Numeric Interpretation
Strongly disagree	1.0- 1.80
Disagree	1.81- 2.60
Moderately agree	2.61- 3.40
Agree	3.41- 4.20
Strongly Agree	4.21- 5.0

Table 1: Students' Challenges – Connectivity

Connectivity	Mean	SD	Rank	Verbal Interpretation
1. I have poor internet connection.	4.18	1.05	1	Agree
2. I have technical problems in using online applications.	3.63	1.21	3	Agree
3. I don't have coping mechanisms to deal with unstable internet connections.	4.17	0.89	2	Agree
4. I always received late work task/requirements.	3.51	1.23	4	Agree
Weighted Mean	3.87	1.10		Agree

It can be seen from table 1 that most of the students "agreed" that when connectivity is concerned; poor internet connection was the prime issue. The weighted mean of 3.87 and a standard deviation of 1.10 revealed that majority of the learners did "agree" to have encountered challenges in connectivity when using online applications as learning modalities.

Table 2: Students' Challenges – Accessibility

Accessibility	Mean	SD	Rank	Verbal Interpretation
1. I live in a distant place where there is no signal.	3.66	1.33	2.5	Agree
2. I struggle in finding additional resources in the internet to help me understand the given learning materials by my professors/ instructors.	3.81	1.01	1	Agree
3. I cannot read/ utilize all the learning materials sent to us via online applications because of other works assigned to me at home.	3.66	1.28	2.5	Agree
4. I have lack of knowledge in using technology such as smartphones, computers and other gadgets.	3.49	1.31	4	Agree
5. I have no gadgets to use for my online learning.	3.15	1.50	5	Moderately Agree
Weighted Mean	3.56	1.29		Agree

Table 2 shows that when it comes to accessibility, majority of the students "agreed" that they struggle in finding additional resources in the internet to help them understand the given learning materials by their professors/ instructors. The students did "agree" that they encountered challenges in accessibility as revealed by the weighted mean of 3.56 and standard deviation of 1.29.

Table 3: Students' Challenges – Affordability

Affordability	Mean	SD	Rank	Verbal Interpretation
1. I cannot afford to buy load for data use.	3.74	1.15	3	Agee
2. I cannot afford to buy gadget to use for my online study.	3.53	1.29	4	Agree
4. I cannot afford to buy e- learning materials to supplement my learning	3.87	1.19	2	Agree

	Mean	SD	Rank	Verbal Interpretation
3. I can afford to buy gadget and load but waste a lot of money because the data is not working well.	3.91	1.14	1	Agree
Weighted Mean	3.76	1.19		Agree

It can be gleaned from table 3 that most of the students "agreed" that they can afford to buy gadget and load but wasted a lot of money because the data was not working well. The weighted mean of 3.76 and a standard deviation of 1.19 revealed that they "agreed" on having challenges regarding affordability.

Table 4: Teachers' Challenges – Connectivity

Connectivity	Mean	SD	Rank	Verbal Interpretation
1. I always send late work tasks/requirements to my students	2.17	1.07	4	Disagree
2. I have technical problems in using online learning applications	2.52	1.08	3	Disagree
3. I have problems in coping with unstable connections	3.91	1.08	1	Agree
4. I only use data connection.	3.35	1.30	2	Moderately Agree
Weighted Mean	2.99	1.13		Moderately Agree

Table 4 shows that when it comes to challenges in connectivity, the teachers "agreed" that they had problems in coping with unstable connections; while they "moderately agreed" in only using data connection, and "disagree" in having technical problems in using online learning applications and always sending late work tasks/requirements to their students. The weighted mean of 2.99 and a standard deviation of 1.13 revealed that the teachers "moderately agreed" to have encountered challenges in connectivity.

Table 5: Teachers' Challenges – Accessibility

Accessibility	Mean	SD	Rank	Verbal Interpretation
1. I live in a distant place where there is no signal.	2.35	1.11	2	Disagree
2. Adaptability struggle and difficulty in explaining the modules.	2.78	1.04	1	Moderately Agree
3. There are distractions in my online teaching.	2.26	1.01	3	Disagree
4. I have lack of knowledge in using technology such as smartphones, computers and other gadgets.	1.48	0.67	4	Strongly Disagree
Weighted Mean	2.21	0.96		Disagree

As shown in table 5, most of the teachers "moderately agreed" to have adaptability struggle and difficulty in explaining the modules for issue concerning accessibility. However, they "disagreed" to encountered issues about living in a distant place where there was no signal, and having distractions on their online teaching.

Further, they "strongly disagreed" to have issues about having lack of knowledge in using technology such as smartphones, computers and other gadgets. The weighted mean of 2.21 and a standard deviation of 0.96 revealed that majority of the teachers "disagreed" to have encountered challenges in accessibility.

Table 6: Teachers' Challenges – Affordability

Affordability	Mean	SD	Rank	Verbal Interpretation
1. My money is just enough for my family needs.	2.48	0.99	3	Disagree
2. I cannot afford to buy instructional material to use for my online teaching.	2.26	1.14	4	Disagree
3. I do not receive any financial support from school to provide my needs in teaching.	2.87	1.01	2	Moderately Agree
4. I spend a lot of money just to buy load but data is not working well.	3.61	1.16	1	Agree
Weighted Mean	2.80	1.08		Moderately Agree

It can be gleaned from table 6 that the teachers "agreed" to have spent a lot of money just to buy load, but the data was not working well. They "moderately agreed" on not receiving any financial support from school to provide their needs in teaching. However, they "disagreed" on having just enough money for their family needs, and they cannot afford to buy instructional material to use for their online teaching. The teachers "moderately agreed" to have encountered challenges in affordability as revealed by the weighted mean of 2.80 and a standard deviation of 1.08.

IV. CONCLUSION

Based on the results, the researchers concluded that the students had encountered challenges in connectivity, accessibility, and affordability such as poor internet connection; struggle in finding additional resources on the internet to help them understand the given learning materials by their professors/ instructors; and wasted a lot of money because the data was not working well. Further, teachers had also encountered challenges such as unstable internet connection; difficulty in explaining the modules through online; and spending a lot of money in buying load, but the data was not working well.

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