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Research Article

The Learning Delivery Modalities in Cataduanes State University

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ABSTRACT

The suspension of conduct of face-to-face learning has shifted the Catanduanes State University (CatSU) to adapt flexible blended learning in delivering instruction and learning experiences to its students. As directed by the Commission on Higher Education, universities and colleges in the Philippines should adapt flexible blended learning. With limited training on blended learning, the CatSU faculty members are prone to some limitations and drawbacks while implementing the adapted Learning Delivery Modalities (LDMs). An investigation on the implementation of LDMs in CatSU revealed that faculty members used blended learning that is a combination of online synchronous or asynchronous classes to offline modular distance learning. The platform used by the faculty members in conducting synchronous classes were Zoom and Google Meet. On the other hand, the platform used in conducting asynchronous sessions was Google Classroom. While the adapted flexible blended learning of CatSU faculty members include online learning, a few faculty members reported that they had trouble in contacting their students since either the students don't own mobile phones, or they don't have phone signals at home. Some faculty members considered having not provided with internet service at school as a minor problem. Possible solutions for the different problems encountered by the faculty members have been recommended in this study.

Keywords: *learning delivery modalities, flexible learning, blended learning.*

Background

Due to the rapid spread and continues threat of Corona Virus Disease 2019 (COVID-19), Philippine schools from basic education to higher and advanced education including technical education have been forced to suspend face-to-face learning. As a result, schools shifted to other forms Learning Delivery Modalities (LDMs). Learning Delivery Modalities or LDMs are the mode or form of delivering the instruction and learning experiences to learners.

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One of the contributing factors affecting student learning is the mode of instruction or Learning Delivery Modality. In fact, in a study conducted by Cetin and Ozdemir (2018) reported that blended learning is more effective than face-to-face learning in supporting student's achievement in electricity and science process skills. This finding is similar to the study of Shuja et al. (2019) where they reported that flexible learning "lifts up the academic outputs" of students. In addition to this Oweis (2018) reported in his study that student's achievement and motivation to learn English is significantly affected using blended learning compared to the use of traditional face-to-face learning.

It was also reported that blended learning has positive effect on student's attitude towards learning. Lin and her colleagues (2017) highlighted in the results of their study that blended learning showed positive significant effect on student's attitude toward mathematics. Korkmaz and Karakus (2009) found that blended learning "contributed more to student attitudes toward geography course when compared to the traditional learning mode" or the face-to-face learning.

The common denominator of all these studies previously presented is the form of blended learning they adapted. All these studies adapted blended learning which is the combination of face-to-face learning and online learning.

The above study supported the decision of the Commission on Higher Education (CHED) for universities and colleges to implement blended learning starting school year 2020-2021 while face-to-face classes are suspended (CMO No. 4, 2020). Blended learning has been defined by DepEd as:

… a learning delivery that combines face-to-face with any, or a mix of, Modular Distance Learning, Online Distance Learning, and Television/Radio-Based Instruction. Blended learning will enable the schools to limit face-to-face learning, ensure social distancing, and decrease the volume of people outside the home at any given time (DepEd Order No. 12, 2020, p. 32).

With the suspension in the conduct of face-to-face classes, blended learning could only be implemented as a combination of any or a mix of Modular Distance Learning, Online Distance Learning, and Television/Radio-Based Instruction except face-to-face learning.

However, there are guidelines on what blended mode of learning. The teacher cannot decide alone on what to use because that is comfortable for him or her. According to California State University (2007), the mode of instruction must be decided upon the available resources of students and his or her capacity to use such resources. For this reason, CHED issued CMO No. 4 series of 2020 or the guidelines on implementing flexible blended learning. The CMO (No. 4, 2020) reiterates the following guidelines presented in Table 1 in deciding what level of technology and the corresponding approaches to use.

Table 1. Level of technology and the corresponding approaches to use (CMO 4, 2020)

Categories	Availability of Devices	Internet Connectivity	Level of Digital Literacy	Approaches
High Level Technology	laptops, mobile phones, desktops, tablets	Fast	Proficient	Online Learning or Blended Learning Technology
Medium Level Technology	mostly mobile phones	Slow	Advanced	Macro and Micro Learning Approaches (A mix of online and offline learning)
Low Level Technology	some mobile phones or no technology	Poor or no internet connection	Beginner	Self-instructional materials/mostly offline activities

Since the province of Catanduanes experiences slow to poor or no internet connection (Catanduanes Tribune, 2020) at all in some barangays, online learning such as synchronous and asynchronous online classes should not be used as Learning Delivery Modality. If all students geographically located or residing in barangays where internet connection is fast, online learning is possible.

With the adaption of online classes as LDM, experts have warned the public of possible health risks. According to Crisostomo (2020), although online classes provide a safer access to learning since they will have to stay at home while studying, it may cause a feeling of isolation to Filipino students. The High Focus Centers (2020) published article that reported impact of virtual or online learning on the mental health of the learners. According to them, there are three negative mental health effects of online learning which include social isolation, increases stress and anxiety, and virtual learning fatigue (High Focus Centers, 2020).

In an interview with Katie Lear, a mental health counsellor who specializes in trauma and anxiety treatment, revealed that increased screen time because of online classes has been linked to anxiety, depression, and perceived attention problems (Wirth, 2020). In his news article published in inquirer.net, Adonis (2020) reported that only few students are seen in online classes. This only suggests that students are struggling to adjust in the new set up of learning.

CHED Chairman, Dr. J. Prospero De Vera III warned the faculty members of SUCs the misconception of flexible learning to online learning. According to De Vera (2021) flexible learning means to "mix and match the available options depending on the situation of the students, teachers, connectivity and health situation on the ground" (Mateo, 2021). His statements are consistent with the CMO No. 4, s. 2020 which provides guidelines in adapting flexible learning to universities and colleges.

Even before the pandemic, the California State University has been reminding teachers to identify first the available resources and capacity of the learners before deciding what forms of LDMs to use (California State University, 2007). Thus, the implementations of LDMs must be in agreement between the teachers and the students.

There are four forms of Learning Delivery Modalities (LDMs) as described by DepEd Order No. 12 series of 2020. These include (1) face-to-face learning, (2) distance learning, (3) blended learning, and (4) home-schooling. Under distance learning, there are two types which include Online Distance Learning and Offline Modular Distance Learning. The Online Distance Learning is further composed of two types, namely Online Asynchronous and Online Synchronous (Oxbridge Academy, n.d. & DepEd No. 12, 2020).

Among the four, the most used form of LDM is the face-to-face learning. However, with the recent developments regarding COVID-19, face-to-face learning is impossible for now.

All the Philippine schools from basic education to advanced education were suspended for the conduct of face-to-face learning (DepEd Order No. 12, 2020 & CHED Advisory No. 7, 2020). With this, all the schools, universities and colleges in the Philippines shifted to other forms of LDMs. However, CHED reiterated in Advisory No. 7 (2020) that universities and colleges must use the flexible blended learning as their LDM.

The Inter-Agency Task Force on Emerging and Remerging Infectious Diseases (IATF) prohibited the conduct of face-to-face classes. As a result, the Commission on Education (CHED) issued CHED COVID Advisory No. 7 series of 2020 which prohibited the conduct of face-to-face classes in al universities and colleges in the Philippines on school year 2020-2021.

This made the CatSU shifted to LDMs other than face-to-face learning. This is a big leap for the CatSU given that adaption of LDMs other face-to-face learning is unprecedented. To prepare the CatSU faculty members in the opening of school year 2020-2021, a 2-day training on the use of Learning Management System was initiated by Office of the President through Office Memorandum dated July 12, 2020.

With this minimum preparation of CatSU for the opening of school year 2020-2021, one could not diminish the fact that problems have been encountered by the faculty members. The present study investigated on the LDMs implemented by the faculty members of CatSU, the

problems they encountered and the solutions they identified for those problems.

The Main objective of this study is to determine the Learning Delivery Modalities adapted by the faculty members of the different departments and colleges of the Catanduanes State University in teaching undergraduate courses. To realize this, the researcher had investigated the following research questions.

1. What are the Learning Delivery Modalities (LDMs) offered by the different colleges in Catanduanes State University?
2. What are the problems encountered by the faculty members of different colleges in implementing these LDMs?
3. What are the possible solutions identified by the faculty members to address these problems?

This study is significant to both the administration of the CatSU and its faculty members and the provincial government of Catanduanes or other members of academic community.

Results of this study specifically for problem statements number 1 and 2 would provide a baseline data for the administration of CatSU on the different LDMs being offered by the different colleges and the problems that these faculty members have been experiencing. From these, the administration may develop policies and training programs that would enhance or capacitate the faculty members in using the different possible LDMs that CatSU may be adapting.

On the other hand, specific answer to problem statement number 3 would provide the faculty members a set of possible solutions to the problems that they may be encountering while implementing the different LDMs that their college have been adapting. With this set of possible solutions, the faculty members can easily identify what to do when they encounter specific problems where solutions have been identified by this study.

Results of these study would benefit the provincial government of Catanduanes or other members of academic community in the way that they may be able to extend support to CatSU by providing the solutions to some problems identified in this study that involves learner difficulties that limits the students in participating to the LDMs adapted by their respective college or department.

Methods

Research Design

This study employed the survey research design. One of the purposes of conducting survey is to gather data that will answer questions based on people's opinion or judgement on some topic or issue (Gay, Mills, & Airasian, 2009). Check and Schutt (2012, as cited by Polo, 2015) defined survey method as "the collection of information from a sample of individuals through their responses to questions" and widely used for large population. Polo (2015) added that participants of the survey method may or may not have similar characteristics however, they must have knowledge about the topic or issue where you are conducting survey.

The participants of this study were faculty members of a university, and it is considered a large population. To facilitate the data gathering to these participants, the survey method was employed for this study.

The type of survey research design that was applicable for this study was cross-sectional surveys. In cross-sectional surveys, data were collected from participants at a single point in time (Gay, Mills, & Airasian, 2009). Needed data for this study was gathered at a single point in time only. That is, the researcher distributed the survey questionnaire to the participants and retrieve upon completion. Since the researcher gathered the data only once and he did not return to the participants for the second round of data gathering, this qualified the study for cross-sectional survey.

The instrument used in a survey research design is called survey or survey-questionnaire (Gay, Mills, & Airasian, 2009). For this study, the researcher developed and validated a survey-questionnaire which was used in data gathering. The absence of a readily available survey-questionnaire was the reason why the researcher made his own survey-questionnaire.

Participants

The participants of this study involved selected 105 faculty members of Catanduanes

State University who have been teaching undergraduate courses since the onset of suspension of face-to-face classes in March 2020. Table 2 presented the profile of the participants of this study. The table suggests that on the average, the participant of this study is an Assistant Professor who has more than ten years of teaching experience. The participants were all teaching in undergraduate courses of the Main Campus in Virac, Catanduanes.

The participants were randomly selected however, to be included in the selection process, they must have taught during the pandemic since March 2020. This is to select participants that would provide meaningful data to the study being conducted. It would be not helpful if the participants to be selected is a newly hired faculty who has no experience in teaching during the pandemic.

Table 2. Participants

Academic Rank	Number
Instructors	26
Assistant Professors	48
Associate Professors	29
Professors	2
Years in Service	Number
1 – 5	27
6 – 10	34
More than 10 years	44

Implementation and Data Collection

The instrument used to gather data for this study was the researcher-made survey questionnaire intended to gather information about LDMs implemented by faculty members of CatSU, the problems they encountered and the solutions they immediately devised to address the problems they encountered.

In developing the survey questionnaire, the researcher has been guided by the recommendations of Worthington and Whittaker (2008) for scale development. First, the constructs or objectives was identified. There are three constructs identified for this study – (1) identify the LDMs implemented by the faculty members, (2) identify the problems they encountered while implementing the LDMs, and (3) identify the solutions they devised to immediately solve these problems.

The second step was the item generation. Initially, there were 15 items generated for this survey questionnaire. However, after the validation process, five items were suggested by the validators to be added.

The third step was to validate the content of the questionnaire to pool of experts in the field of study. Ten college professors have been commissioned to validate the content of survey questionnaire. The validation process has been guided by the recommendations of Lynn (1986) and Polit and Beck (2004). According to Lynn (1986), in content validation, there is no need to have several content validators. The more the content validators are, the lesser the chance of agreeing to specific items subject for content validation. She stressed that there is a need to have at least three (3) content validators but more than ten (10) is not needed. She added that if the content validators are only three (3), all validators must agree at every item for each item to be considered valid (Lynn, 1986). In the case of the present study, there are 10 content validators.

Table 3 presented the Item-Content Validity Index or I-CVI of the questionnaire. This is the validity coefficient of every statement of the questionnaire. Lynn (1986) recommended that for six (6) or more validators, the minimum I-CVI of each statement must be at least 0.76. In the case of the questionnaire being developed, all items passed the minimum I-CVI recommended since the lowest I-CVI reported for this study was 0.88. Thus, each item of the researcher-made survey-questionnaire is content valid.

The overall validity coefficient of the instrument or the so-called Scale-Content Validity Index (S-CVI) is 0.96. Waltz, Strickland, and Lenz (2005) suggested that a newly developed scales or survey-questionnaires should have at least 0.90 S-CVI to be accepted for use in data gathering. Since the S-CVI of the researcher-made survey instrument was 0.96, this instrument was content valid and was accepted as used for data-gathering of this study.

Table 3. I-CVI and S-CVI of the Survey-Questionnaire

Item Number	Weighted Average	I-CVI
1	3.83	0.96
2	4.00	1.00
3	4.00	1.00
4	4.00	1.00
5	3.83	0.96
6	3.67	0.92
7	4.00	1.00
8	4.00	1.00
9	3.83	0.96
10	3.67	0.92
11	3.67	0.92
12	3.50	0.88
13	3.83	0.96
14	3.83	0.96
15	4.00	1.00
General Weighted Average	3.84	96.11

The fourth step in scale development was to revise the questionnaire based on the recommendations of the content validators. The questionnaire received a few recommendations for improvement from the validators which includes the following:

"You might want to consider the number of times a teacher conduct[s] an online class in a week or month and in case how many of the students participated."

"Also, in each question, always consider an option, "Others please specify" so as not to limit the respondent. There might be other modalities not captured [in the survey questionnaire]"

"And in your letter, please always include the strict observance of confidentially and animosity of whoever will participate, and data will be used for the purpose of the study only."

"Also, indicate what undergraduate course did you teach."

"The sequencing and rephrasing of questions must be looked into."

"There are universities and colleges that have their own Learning Management Systems (please check the Top 3 universities), perhaps you can include them as your item too."

These recommendations were considered and incorporated to the revised questionnaire.

The fifth step was pilot testing. The survey questionnaire was pilot tested to some faculty members of the same University. This is to test the reliability of the questionnaire. The intraclass correlation statistics was considered in testing the reliability of the questionnaire since the questionnaire was not in the form of Likert scale.

Table 4. Rule of thumb for intraclass correlation coefficient adopted from Koo and Li (2016)

Reliability Coefficient	Interpretation
$r < 0.50$	poor reliability
$0.50 \leq r < 0.75$	moderate reliability
$0.75 \leq r < 0.90$	moderate reliability
$r \geq 90$	excellent reliability

Koo and Li (2016) suggested a rule of thumb presented in Table 4, for using intraclass coefficient in reporting the reliability of the research instrument. Using the two-way random method of intraclass correlation coefficient with absolute agreement, the reliability coefficient of the survey-questionnaire was 0.889. This is of good reliability as reflected from Table 4. Hence, the survey questionnaire is reliable.

After proving that the survey-questionnaire which was used as research instrument was valid and reliable, the final instrument was reproduced and prepared for distribution to the different colleges and departments of CatSU. An informed consent was prepared and attached to survey questionnaire. In the informed consent, the following were included:

Purpose of the Study. The participants were informed of the objectives of study, that is, why this study has been conducted and what are the benefits they will gain form this study.

Study Procedures. The participants were informed of the manner of data gathering.

Duration. The participants were informed of the duration of the data gathering.

Voluntary Participation. The participants were informed that their participation to this study was purely voluntary. They were informed that they may withdraw their answers to the questionnaire whenever they opt to. They were also informed that should they withdraw their participation from the study, their

relationship to the researcher will not be affected.

Risks. The participants were informed of the possible risks in participating to the study.

Benefits. The participants were informed of possible benefits because of participating in the study.

Confidentiality. The participants were informed that their participation to this study was kept confidential. They were informed that the information they supplied for this study was kept confidential and that no other person or individual had accessed to such privileged information.

Data Processing. The participants were informed of how data gathered from this study were processed. They were informed that all data gathered will be processed for research purposes only.

Contact Information. The participants were provided with the contact information on who to contact when they had questions about the study or the procedure of data gathering.

An approved request letter from the Office of the Vice President for Academic Affairs has been secured first before the questionnaire has been distributed to the intended participants of the study. A request letter was also secured from the deans of the colleges before the questionnaire was distributed to their respective faculty members.

The researcher personally distributed the questionnaire to the participants. This is to provide an immediate answer and feedback to the participants queries about the study or questionnaire. The participants were given ample time to finish the questionnaire. Given the number of the items in the questionnaire, the participants are expected to finish the questionnaire at most 10 minutes.

Right after finishing the questionnaire, the researcher immediately retrieved the questionnaires. Some participants requested to be given more time to answer the survey. The researcher retrieved from these participants the survey questionnaire after two days. There is 100% retrieval rate of the questionnaires distributed.

Result and Discussion

LDMs Used by Different Colleges

The Learning Delivery Modalities (LDMs) used by the faculty members in teaching general education courses, professional courses and major courses were all blended learning. However, there are differences in the LDMs being combined for the blended learning they used. As presented in Table 5, some faculty members blended the online synchronous with offline modular distance learning while others blended the online asynchronous with offline modular distance learning. There were no faculty members who reported to have used homebased learning and face-to-face learning.

Table 5. Blended learning used in CatSU

Blended Learning Used	Number of Faculty who Used the LDM
Online Asynchronous & Offline Modular	63
Online Synchronous & Offline Modular	12
Online Synchronous, Asynchronous, & Offline Modular	30

To reach the students enrolled in their subjects, the faculty members used three methods. The three methods include short messaging services or SMS, phone call and messages through Facebook messenger accounts. No faculty members conducted personal home visit in reaching out the students.

It was reported that all the faculty members have reached out to all students enrolled in their subjects. All students responded to the faculty members informing them about the subjects they are enrolled in.

There are two Learning Management System or online platform used by the faculty members in conducting their online classes for both asynchronous and synchronous classes. These are Google Classroom and Facebook Group (education category). On the other hand, the video conferencing tool used by the faculty

members for online synchronous classes are Zoom and Google Meet.

Other faculty members claimed to be using Group Chat in Facebook Messenger and Telegram for their online asynchronous classes. They upload the file such as video and pdf format of learning materials in the Facebook Messenger Group Chat, then the students upon receiving the files in their account will be downloading to have offline access to it.

A faculty member responded, "Our online classes were mostly through Facebook messenger group. For important updates, I text/call the students with slow to no internet connection."

There are three two types of learning materials the faculty members produced in their subjects. These include modular textbooks (printed and electronic) and video lessons. The electronic version of modular textbooks and video lessons were uploaded in Google Classroom and in Group Chats in Facebook Messenger. These were also transferred to individual flash drives of the students. Together with the printed version of the modular textbooks, the flash drives were distributed to students in different municipalities. CatSU followed a schedule of distribution of learning materials and flash drive to different municipalities.

The learning materials distributed to the students were either prepared by the faculty concerned, downloaded from the internet, collaboratively prepared by their unit, department, or colleagues with same subject, or purchased from a bookstore.

The faculty members used different methods of distributing the learning materials to their students. Table 6 presented the methods used by the faculty members. Among the methods used by the faculty members in distributing the learning materials to the students, sent thru Facebook messenger group accounts were mostly used. Only four faculty members used email as a method of sending learning materials to their students. all the respondents responded that they were able to send the learning materials to their students. Some faculty members used different methods of distributing learning materials while others used only one.

The manner of retrieving the answered activities of the students were the same with how the faculty members distributed their learning materials. Those who sent the learning materials via email, Facebook messenger and uploading in LMS retrieved the answers in the activities through email, Facebook messenger and uploading in LMS. The students were given options by the faculty members in submitting their answered activities.

Table 6. Method of distributing learning materials

Method of Distributing the Learning Materials	Number of Faculty Reported Using
Printed materials and digital materials stored in flash drives were distributed to respective municipalities.	47
Digital materials and videos were sent thru Facebook messenger.	78
Digital materials and videos were sent thru email.	4
Digital materials and videos were uploaded in LMS	43

The university also scheduled a unified retrieval of hardcopies of answers to their activities. A group of faculty members were tasked to go to different municipalities to collect the hardcopies of answers of students. A drop box for student's outputs were also placed at the gates of the University for those students who reside near the University.

Some faculty members who used online learning required their students to submit their outputs every end of the week. Others required their students to submit their outputs at the end of the month. There are few faculty members who required to their students to submit at the end of midterm and final coverages.

Problems Encountered in Using the LDMs Adapted by the Colleges

With the implementation of blended learning in CatSU, the students as well as faculty members experienced different kinds of issues. The issues experienced by the students have been summarized in Table 7. The corresponding number of faculty members who reported the problems were also presented.

Although only 12 faculty members reported that some of their students do not have phone signal at home, there are 58 faculty members that reported their students do not have internet connection at home. It is possible that those 46 faculty members who reported that their students do not have internet connection at home have phone signal only at home. They may only be reach through short messaging services (SMS) or via phone call. A few faculty members reported that some of their students went to seashores, mountain tops and barangay roads only to get phone signal or internet service through data connection in their phones.

Table 7. Problems experienced by students

Problems Experienced by Students	Number of Faculty Members Reported this Problem
Students have no phone signal at home.	12
Students have no internet connection at home.	58
Students have no gadgets to be used for online learning.	12
Students have no knowledge in using Google Classroom as an LMS.	35

On the other hand, Table 8 presented the issues experienced by the faculty members in adapting the blended learning. Among these, late submission of students' outputs has the highest number of reported issues by the faculty members. Only three faculty members reported that they have no knowledge about using LMS for online classes. Five faculty members considered the school not providing internet connection to faculty members as an issue for the adaption of blended learning.

The problems encountered by the faculty members can be summarized into three categories, namely: technical problems, time management and geographical location of students.

Table 8. Problems experienced by faculty members

Problems Experienced by Faculty Members	Number of Faculty Members Reported this Problem
We don't have internet connection at school.	5
I do not know how to use LMS for online class.	3
I do not know how to create videos for my lessons.	7
I do not know how to assess student learning for online classes.	22
Students are not always online to attend the synchronous classes.	15
Students are not submitting their outputs on time.	55
It is difficult to distribute the learning materials because students are geographically distributed in the province.	35

Solutions Identified by Faculty to Problems Encountered

While experiencing the different problems while implementing the blended learning, the faculty members already provided immediate solutions. The following are the solutions immediately provided by the faculty members to the four problems experienced by their students.

Table 9 presented the solutions immediately provided by the faculty members to the problems experienced by their students.

Table 9. Immediate solutions provided by faculty members to problems encountered by students

Problems Experienced by Students	Immediate Solutions Provided by Faculty Members
Students have no phone signal at home. Students have no internet connection at home. Students have no gadgets to be used for online learning.	• Schoolmates or classmates informed the students about the distribution of learning materials and the plan of activities. • The LDM used for these students is Offline Modular Distance Learning. The learning materials used for this LDM was printed modules. • The outputs required were hardcopies. These were submitted on a schedule university-wide retrieval of outputs in respective municipalities.
Students have no knowledge in using Google Classroom as an LMS.	• The LMS used by the class was Facebook group (education category). • Learning materials were sent to the students through Facebook messenger.

The four problems reported by faculty members that their students experienced can be categorized into two problems, namely: gadget related problem and knowledge about LMS problem. Both problems experienced by the students lead to the limitations of the use of online classes. However, the teachers adapted different solutions for the two types of problems experienced by the students.

The gadget related problem consists of three subproblems which include "Students have no phone signal at home," "Students have no internet connection at home," and "Students have no gadgets to be used for online learning." Analysis of the answers revealed three solutions immediately provided by the teachers. The solutions include the following:

1. Schoolmates or classmates informed the students about the distribution of learning materials and the plan of activities.
2. The LDM used for these students is Offline Modular Distance Learning. The learning materials used for this LDM was printed modules.
3. The outputs required were hardcopies. These were submitted on a schedule university-wide retrieval of outputs in respective municipalities.
4. Table 10 presented the immediate solutions provided by faculty members to problems encountered they encountered while adapting the LDMs.

Table 10. Immediate solutions provided by faculty members to problems encountered they encountered

Problems Experienced by Faculty Members	Immediate Solutions Provided by Faculty Members
We don't have internet connection at school.	• I provided my own internet connection.
I do not know how to use LMS for online class.	• I attended the CatSU LMS Training. • I attended webinars on implementing LMS.
I do not know how to create videos for my lessons.	• I searched the internet for videos which contents were suited for the lessons.
I do not know how to assess student learning for online classes.	• I searched the internet for techniques and strategies of assessment of learning during blended learning

Problems Experienced by Faculty Members	Immediate Solutions Provided by Faculty Members
Students are not always online to attend the synchronous classes.	• I adapted the blended learning which combined the asynchronous online learning and offline modular learning.
Students are not submitting their outputs on time.	• I provided extension of submitting their outputs.
It is difficult to distribute the learning materials because students are geographically distributed in the province.	• I prepared earlier my learning materials and submitted them to out department so that it was included in the learning materials distributed by the team to different municipalities.

Even before pandemic, other universities around the world have been adapting the flexible blended learning as their Learning Delivery Modality (LDM). In fact, the University of the Philippines Open System which was established in 1995 had been providing open learning and distance education to its students (UPOU, 2021). In addition to this, the UPOU offered graduate degree programs in distance education in support to the continuous growing needs to distance education.

With reference to CHED Memorandum No. 4 series of 2020, the Catanduanes State University had started adapting the flexible blended learning for the first time in its 50 years of establishment. The faculty members had the academic freedom in adapting the appropriate LDM for their classes. It was reported by the dean of the colleges that they conducted interview among the students enrolled in their programs on the available resources at their homes. These resources became the basis of the faculty members in the LDMs they adapted.

The type of flexible blended learning that majority of the faculty members used was the combination of online learning and offline modular learning. In online learning, the faculty members either used asynchronous or synchronous online learning depending on the internet connections of the students. Google meet and Zoom video conferencing have been the two widely used platforms in CatSU when it comes to synchronous sessions. On the other hand, for asynchronous sessions, the faculty members adapted the use of google classroom and Facebook group under education category. Each classes maintained a group chats for messenger which was used for monitoring purposes.

Since CatSU faculty members were new to these LDMs, problems along the way of implementing the LDMs were encountered. CatSU was not prepared for this flexible blended learning that suddenly became a need to be implemented. According to Abbacan-Tuguic (2021), the lack of needed facilities and access to technology post some constraints for the successful implementation of blended learning. clearly, developing universities starting to provide facilities and access to technologies would experience some constraints in implementing this blended learning.

According to the Philippine Education Secretary, blended learning was practically difficult to everyone because everyone was not prepared for this drastic change and implementation specially the students and the parents (Hernando-Malipot, 2021). Since it was already difficult for the part of the students, Abbacan-Tuguic (2021), asserted that teachers must ensure their learners' readiness for blended learning and their attitude towards to be balanced to have a maximum learning outcome.

In their study, Barrot, Llenares and del Rosario (2021) discussed some problems encountered by the students in online learning. They found out that students experience several physical and mental problems like physical discomfort. Financial problem was still the problem mostly experienced by the students. In fact, Dimatulac (2021) in his news report, claimed that online learning is anti-poor. Students who do not have resources for online learning are

being forced to provide gadgets because majority of the classes can afford one.

In a study conducted by Alvarez (2020), he presented five roadblocks of blended learning that may encapsulate the same problems encountered by the faculty member in Catanduanes State University. These five roadblocks include technological, instructional, class size, technical support, and collaboration.

Under technological roadblock, Alvarez (2020) discussed the "use of technology in teaching and learning becomes a hindrance or a barrier for the teachers to deliver their instruction, considering the need to use an LMS". In instructional roadblock, he described it as "poor instructional policies and assessment guidelines" that hindered the teachers in adapting, designing, and implementing assessment of learning in blended learning. He described the class size roadblock as "which talks about disparity of teacher and student ratio or class size distribution." The technical support roadblock for him "expresses the idea of having institutional team support in extending technical assistance, regardless of time and distance." While the collaboration roadblock is described as the "limited to lack of interaction between teacher-student and student-student due to poor utilization of technology-enabled communication tools."

Comparing the results of this study to the roadblocks presented by Alverez (2020) one could identify that some of the problems encountered by the faculty members of CatSU were encapsulated in the roadblocks presented by Alvarez (2020). For example, the problem encountered by some faculty members of CatSU about the use of LMS and how to create video and/or audio lessons was under the category of technological roadblock of. The problem regarding assessment of learning is categorized under the instructional roadblock. The problem on distribution of learning materials to each student may be categorized under the technical support roadblock.

Conclusion

Since the problems encountered by CatSU was not an isolated case as other universities and colleges were experiencing these problems, it was only proper to investigate other universities and colleges who successfully managed these problems. Their experiences could be the basis of what coping mechanisms could be developed regarding these problems.

Both the students and teachers encounter different problems in drastically adapting the blended learning. Other problems encountered by both teachers and students were immediately provided with temporary solutions identified by the teachers. However, these temporary solutions may not last longer. There is a need to identify permanent solutions to these problems.

The challenges encountered in adapting the blended learning must be communicated to proper school authorities so that other faculty members who experienced the same would be provided with adequate support and solutions.

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