Research Article

The Implementation of E-learning Amidst the COVID-19 Pandemic: The Case of Graduate School Faculty Members

Cynthia Mongas-Carino

Ilocos Sur Polytechnic State College, Sta. Maria, Ilocos Sur 2705

Abstract

The provision of educational content online using electronic resources as support services for students is referred to e-learning or online learning. In the Philippines and even in other countries, the concept of e-learning became extensively popular since the COVID-19 pandemic started.

This study was carried out to determine the insights of the faculty in the implementation of the e-learning modality in the Graduate School of Ilocos Sur Polytechnic State College. Specifically, to identify teachers' perceptions about e-learning, examine their current experiences of using this modality in the midst of the COVID19 pandemic, discover the different types of free online platforms they are currently using and finally, to identify problems related to the use of e-learning and to recommend possible solutions to improve this type of intervention. The study made use of qualitative design using the action-research approach to identify the teaching experiences of fifteen (15) professors involved in the implementation of e-learning at the Graduate School of Ilocos Sur Polytechnic State College (ISPSC).The main method of data collection was a questionnaire.

As to the results of the study, the following were drawn: a.) despite the negative experiences of most professors with the implementation of e-learning, they are willing to learn and will keep on innovating and taking the initiatives to explore other e-learning platforms just to attain their goal to offer quality education to all the learners especially this time of COVID-19 pandemic. b.) Even without much hands-on experiences with the use of technology, most of the respondents are willing to try using various free platforms such as: Google Classroom, Zoom, FB Messenger, Google Meet, and Schoology. The professors and the students could easily adapt to these new changes to be aligned in the 21st century skills of learning. c.) students' positive response to e-learning mode with limited face-to-face instruction is desired for better understanding of the lesson especially when topics need further explanation/demonstration by the professors;

d.) Since the preparation of e-learning classroom is rigorous, the professors need intensive training to effectively utilize the various e-learning platforms they are currently using to further improve both students' learning and teachers' effectiveness. In this study, recommendations were formulated that could be considered by the faculty members and school management to improve the teaching and learning process through e-learning.

1. Introduction

The COVID19 outbreak has wreaked havoc around the world and even severely affected the education system. The students, both in public and private schools, State Colleges and Universities, are immensely moved. In the press release of March 18, 2020, according to the United Nations for Education, Science and Culture (UNESCO), more than 800 million students around the world were affected, 1 in 5 students did not go to school, 1 in 4 cannot attend college classes, and more than 102 countries have ordered school closures nationwide, while 11 have implemented local school closures. Millions of children are out of school every day due to ongoing emergencies and humanitarian crises. The COVID19 outbreak has exacerbated the plight of students in affected countries and / or after conflicts and disasters. While the Global Campaign for Education (GCE) recognizes the public health decision to close schools, contingency plans must be implemented to guarantee the right to education even in times of crisis. GCE believes that all students have the right to an education, regardless of where they live or where they live. Education is a fundamental right of children, adolescents and adults in emergency situations and must be a priority in any emergency response from the beginning. https://campaignforeducation.org/en/2020/03/18/coronavirus-dont-let-ourchildren down/?gclid=Cj0KCQjwu7OIBhCsARIsALxC UaMftKADSyQBhLV6L97HQgA8D9oWs9is9zt oRR-Krl5u_D5EkIKqClEaArAsEALwwcB (March 18, 2020, News, Press Release, posted by Philani).

Indeed, the global pandemic of COVID-19 is a great challenge! With millions of students around the world forced to stay home and study, how can we ensure that they receive the best education possible? The urgent departure from traditional classrooms has led to a reduction or even zero hours of contact between teachers and students. Educators today must consider how to most effectively teach their students at home. It cannot be denied that technology is undeniably a potential vehicle for young students to access education.

Numerous educators have had to communicate and teach through the online medium, which is definitely a great option in the future to deliver lessons effectively to students, even in the midst of the pandemic. A learning system based on formalized teaching but with the help of electronic resources is known as e-learning. While classes can take place inside or outside the classroom, the use of computers and the Internet is the main part of e-learning. This requires initiative and innovation from teachers in the use of various tools and strategies that best meet the needs of the current generation of students. And as e-learning becomes increasingly popular with teachers and students, the subject needs special attention in e-learning settings. In other words, ensuring learning through e-learning courses should be a priority in the design of teaching for e-learning courses.

Knowing faculty insights about e-learning and learning from their experiences in order to provide the best alternative mode of learning and recommendations to students and faculty members improve the teaching and learning process while experiencing the COVID19 pandemic.

This study hoped to provide vital information to the school / administration to motivate and support the faculty and develop their professional / technical growth, which greatly affects their online teaching performance.

1.1. Literature Review

Qualitative research involves collecting and analyzing non-numerical data (e.g., text, video, or audio) to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research. Qualitative research is the opposite of quantitative research, which involves collecting and analyzing numerical data for statistical analysis. It is commonly used in the humanities and social sciences, in subjects such as anthropology, sociology, education, health sciences, history, etc. Pritha Bhandari (July 2020). An introduction to Qualitative Research. https://www.scribbr.com/methodology/qualitative-research/

An action research is an approach designed to develop and improve teaching and learning. The essence of action research is teachers' solving every day's problems in schools to improve both students' learning and teachers' effectiveness. https://people.wou.edu/~girodm/library/ch9.pdf

[1] Alday& Pascual (2012) defined E-learning as technically assisted learning that includes the use of electronic media such as the Internet, personal computers, telephone bridges, audio and video tapes, video conferencing, satellite broadcasting, cell phones, personal digital assistants, and other related technologies to improve teaching and learning. In the Philippines, there are many advantages to using e-learning in and out of school such as it allows interactivity between the lesson and the student, individualization of each student is improved, cost effectiveness, as the replication and distribution of learning materials is considered inexpensive, its novelty allows students to participate in interesting lessons, which motivates them and makes them receptive to the ideas provided and lastly, the integrity of each lesson can be maintained since the computer allows the sequential transmission of information according to the needs of the student at any time and place."

While [2]Bienvenido Jr., et.al. (2002), stated that in the 2nd National E-learning Conference defines e-learning as; technologically-supported learning which includes the use of electronic media such as the internet, personal computers, phone bridging, audio and videotape, video teleconferencing, satellite broadcast, mobile phones, personal digital assistants, and other related technologies to enhance teaching and learning.

According to [3]Ruiz, J. (2006), e-learning is the use of Internet technologies to enhance knowledge and performance. E-learning technologies offer learners control over content, learning sequence, pace of learning, time and often media, allowing them to tailor their experiences to meet their personal learning objectives.

In the study of[4]Lillejord, S. (2018), it was revealed that the level of prioritization and implementation of teaching and learning with technology in Higher Education Institutions (HEIs) in the Philippines is high. It has aggregated a mean of 4.03, implying that teaching and learning with technology is highly prioritized in the HEIs and needs to be done in the next 3 years. The study also revealed a significant positive relationship between the degree of implementation of the teaching and learning with technology and conceptual skill of the respondents.

On the other hand, [5]Ebardo (2009) stated that one of the main challenges that higher education institutions faced was understanding the impact of the application of learning management systems (LMS) on student learning outcomes. In this study, students' knowledge acquisition skills improved through the LMS intervention.

In the study of [6]Carlo Giovannella (May 2020) he suggested that the abrupt transition from physical to entirely virtual environment has been

favorably absorbed, while students seem to lack physical environment and face-to-face activities. The overall evolving scenario suggests that a significant part of the current generation of university students, primarily focused on blended learning practices, are ready for new educational process.

On the other hand, [7]Garcia, M. B. (2017) research has empirically examined the behavioral intention of Filipino College students to use E-Learning Technology using Technology Acceptance Model (TAM) with additional predictor values (experience of internet access, effect of social media, etc).

While [8]MahdiehMotie et.al. (August 11, 2020) study stressed on the effectiveness of virtual learning during COVID-19. Based on this research, everybody is moving towards virtual learning and almost all educational institutions and universities around the world have supplemented their students with face-to-face training, enabling them to combine online teaching and virtual education. Students are, however, also less interested in interactive learning than in face-to-face learning.

On students' perception of e-learning, [9]A. Ngampornchai (2016) study revealed that students have a slightly positive perception of e-learning. They have a wide range of mobile technologies and experience working with social media; however, they are not familiar with other collaborative e-learning tools.

In terms of various platforms [10] Ramanadi, A. (2020) suggested numerous methods and strategies for teaching students through a variety of resources and online platforms. It has been proposed to use online programs such as Google Classroom, Google Meet, Skype, Zoom and many other technical tools.

[9]A. Ngampornchai (2016) pointed out significant obstacles to e-learning mode as an objective setting, limited training and support for educators and students, inconsistent internet quality, and Thai teaching methods.

1.2. Objectives

The main purpose of this study is to know the insights of the faculty about the implementation of E-Learning modality at the Graduate School in Ilocos Sur Polytechnic State College. Specifically, to explore the current experiences of faculty in using e-learning modality amidst the COVID-19 pandemic, discover the various types of free platforms online they are using, is e-learning mode appropriate to the subject the faculty is teaching, and finally to find out the problems concerning the use of e-learning classrooms and give possible solutions to improve this type of intervention.

As a guide to this research, the following questions were used: (1) What are your experiences in the implementation of the e-learning modality? (2) Which learning platforms are you currently using for your students to learn at these times of crisis? (3) Is E-learning mode applicable to the course/subject you are teaching? (4) How do Students Respond to E-Learning Modality? (5) What problems have you encountered during the implementation of the E-learning modality? (6) What possible solutions can you suggest to improve this type of intervention.

1.3. Setting and Respondents of the Study

This study was conducted at the Graduate School in ISPSC, Sta. Maria campus. The participants for this research project were chosen purposefully from a group of instructors who employed E-learning modality. The participants of the study were fifteen (15) professors handling various courses. Eight (8) males and seven (7) females. The researcher chose the participants from the Graduate School because they are all using e-learning mode. The researcher utilized a surveyed questionnaire with open-ended questions.

For Ethical considerations, the interviews will be done either online or face-to-face depending on the preference of the participants. After securing the approval of the participants for the interview,

the date, time and venue for both face-to-face and online interview will be scheduled.

The researcher made sure that the participants feel comfortable and at ease, guaranteeing the privacy and confidentiality of all information they will give. By this premise, all participants were given pseudonyms and names in transcripts were changed or removed.

2. Methods

2.1. Research Design

To know the perception and to determine the in-depth experiences of professors in the Graduate School of the Ilocos Sur Polytechnic State College (ISPSC), a qualitative research design was used. Qualitative research is an effort to understand the nature of a setting and the experiences others have in this context. Qualitative research does not forecast what is to happen in the future; rather, it is an analysis that provides a depth of understanding for those who are interested in the events of a particular setting and time. The respondents of the study are currently implementing the E-learning mode amidst the pandemic.

The Action Research was utilized as an approach to determine the teaching experiences of professors involved in the study using E-learning modality at the Graduate School of the Ilocos Sur Polytechnic State College (ISPSC). This methodology was selected to capture and understand the teaching experiences of instructors through their own perspective.

2.2. Research Instrument/ Data Gathering Procedure

The study was carried out in two steps. The initial step was searching online academic journals for the appropriate research papers. Then the distribution of survey questionnaires with open-ended questions to respondents teaching at the Graduate school and a semi-structured one-on-one interview.

2.3. Data Gathering Procedure

During the conduct of the study, the researcher asked permission from the Schools Division Superintendent in the Schools Division of Ilocos Sur. As soon as the request was granted, the researcher coordinated with the heads and distributed the questionnaires to the selected secondary schools.

The questionnaires were retrieved and tallied. Gathered data were subjected to statistical analysis for the basis of interpretation and drawing out significant conclusions.

3. Results and Discussion

On Faculty experiences in the implementation of e-learning modality?

When asked about the professors' experiences in adopting e-learning classrooms, majority had the negative remarks as shown in Figure 1:

Figure 1.

Faculty Experience with E-learning Classroom

■ Positive ■ Negative ■ ■

Based on results, out of fifteen (15) professors who responded to this question, 80 % had negative experiences in the e-learning classroom while 20% had positive experience.

Most of the respondents had negative responses. The following are the reasons why they responded negatively: Poor internet connectivity, unstable/ difficulty in getting signals and the need to learn more about online teaching strategies. Only few of them said that it is an easy way to monitor students' progress. Further, the respondents said the e-learning mode is best served if all faculty members and students have their own laptops, computers and strong internet connectivity or Wi-Fi at home or in school. Furthermore, faculty and students need more training on how to use these various platforms effectively.

Studies indicate that it is important for potential e-learners to understand the distinction between an -E-learning classroom setting and a traditional classroom set -up. As there are both advantages and disadvantages of learning on both environments that can possibly affect the overall performance of the learners. For the advantages, [11]ICT-enhance learning can benefit students, teachers, families and economies. (The positive impact of eLearning, 2012). On the other hand, [12]Rawashdeh, A. (2021) stated that e-learning provides scientific materials in an interesting way to many students; however a presence of electronic illiteracy among parents which reduces their ability to follow their children electronically as disadvantage of it.

On applicability of E-learning Mode to the subject the faculty is teaching?

Table 1: Reasons why E-learning Mode is applicable or not

|	Applicable or Not Applicable	Course/Subject Taught	Reasons
R1	Yes	Gen Ed	Very applicable this time of pandemic where face –to-face instruction is restricted.
R2	Yes	Sociology	Easy monitoring of students Facilitate teaching - learning process
R3	Yes	Prof. Ed.	Facilitate learning Reinforce discussion
R4	Yes	TLE	Easy sending and submission of outputs
R5	Yes	Sciences	Because of the subject itself talks about trends and use of technology
R6	Sometimes No	Math	The subject should be taught via face-to-face discussion
R7	Yes	TLE	Applicable this time of pandemic where traditional face-to-face learning is not allowed.
R8	Yes	TLE	The students are mature enough to handle the e-learning classroom and it is the most applicable modality during this period of pandemic.
R9	Yes	English	Materials are accessible and evaluation can be conducted easily.
R10	Yes	English	E- learning is an effective modality in the absence of the traditional face-to-face modality.
R11	Yes	English	Very Useful and effective tool to utilize as supplement to modular modality
R12	Yes No	Administrative Theory Community Development	It is easier to prepare the lessons using the technology. Because of the activities and the requirements of the course which needs face-to-face interaction with the community.
R13	Yes	Developmental Planning	Because of pandemic, it is useful as an alternative.
R14	Yes	Foundation of Education	Offers access to update content
R15	Yes	Prof. Ed.	Because of the demand of time.

As gleaned from Table 1, majority of the respondents said that e-learning classroom is applicable in the course/subject they are teaching especially todays demand of time. Except for one (1) who responded "Sometimes No" because the subject deals with statistics which really requires active discussion and thorough explanation from the professor in a face-to-face mode.

There are so many private companies and business corporations offering online materials and platforms for free that would aid the urgent needs of schools, teachers and students especially this time of pandemic. These online classrooms are very useful for the students and teachers when using e-learning mode. For courses that need intensive hands-on to demonstrate the skills of the students such as in Sciences, Information Technology, even course such as Languages, e-learning classrooms is very beneficial, aside from using traditional textbooks. Better academic performance and greater productivity rates can be achieved, if the teachers will combine hands-on activities, lecture and e-learning. This will greatly depend on the creativity of the professor teaching the course and the availability of resources the students may have so with the amount of support coming from the administration. Now that many companies have offered their free products and services, Higher Education Institutions should grab the opportunity to make use of these available resources to obtain its objective to offer free and quality education despite the crisis that the country is facing. These could be a great aid to all concerned while learning safely and secure at homes.

On learning platforms the faculty are currently using for their students to learn at these times of pandemic?

Figure No. 2 Learning Platforms Used by the Professors
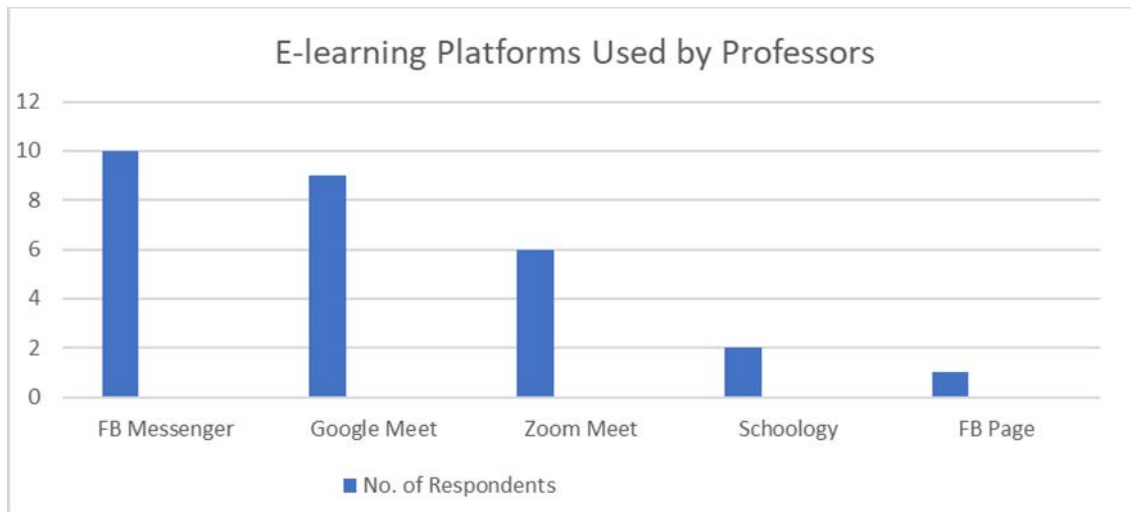
Based on findings, most of the Professors made use of the Facebook Messenger for they find it as the most convenient mode of alternative learning. This is the best option especially when the students have no internet connection. In FB Messenger, if the students have free data, they could easily see the instruction of their professors including the tasks they need to do. In addition, the Google classroom is one of the best platforms which could be accessed for free by the teacher and the students. In this platform, the professor could create a class, assignments, tasks, announcements, or chats with the students. Just like Google Meet, Schoology allows the teachers to create a class and uploads resources and materials online. Google Meet has familiar features with Zoom Meet. Students could be seen online and interact with their teachers. Although these E-learning platforms are free, the availability of resources could be the hindrance why students or teachers could not fully utilize them. However, teachers and students alike

should be grateful that these E-learning platforms are accessible for free. They make the academic life easier most especially during these COVID 19 crises.

The e-learning platforms used by the teacher are the most popular. However, there are other platforms that have not yet been explored such as Edmodo, Moodle, Lark, Odilo, Big Marker and many others. This means that e-learning classrooms are very popular around the world, especially in times of crisis or emergency. COVID 19 has exposed vulnerabilities in universities and government colleges around the world. It is clear that society needs a flexible and resilient education system in the face of an unpredictable future.

In the study of [13]Samir A. (2014), it was stated that in most of Egyptian universities, an open source e-learning platform, such as Moodle, as a tool for providing e-content and providing various options for implementing web-based asynchronous e-learning modules. Furthermore, the study shows that the use of interactive e-learning functions increases students' motivation for the learning process.

Furthermore, [14]Francisco (2020) focused on Eliademy which can be used as an alternative teaching and learning tool, as evidenced by the perceived advantages and disadvantages of such a platform. The look at observed that Eliademy is accessible, it is able to sell time management, velocity and mission for users, although it calls for robust net connections and time pressures. Moreover, different ability getting to know gear have been recommended through which instructors may also make use of relying at the wishes of the newbies considering that such systems have their very own unique capabilities like Atutor, CourseSites, Dokeos, Myicourse, iTunes U, Moodle, Latitude Learning, Schoology etc.

On Students' Response to E-Learning Modality?

Table 2: Students' Response to Alternative E- Learning Mode

		Students Response
R1		The students have both (positive and negative) responses because not all of them have strong internet connection at home.
R2		The students are enjoying and they find it easy to use
R3		The students are responsive and interested to learn.
R4		The students are enjoying and happy learning online
R5		The students are interested to learn even if sometime they only use free data.
R6		Some students are sometimes protesting. Sometimes they are confused due to many activities to work online.
R7		Sometime positive, they are interested to learn online. Sometime negative, because not all have good internet connection/signal.
R8		The students are easier to learn and happy.
R9		The students respond positively because they stay at home while studying; however, often time they asked for extension when submitting requirements because of too much work in school like module preparation, attending to seminars or training etc.,
R10		The students enjoy studying at the comfort of their homes
R11		It is convenient and resources are available any time.
R12		It is convenient to the students because lessons are accessible online.
R13		It favors both faculty and students especially this time of pandemic.
R14		Both positive and negative responses from the students. Positive because they can still continue their education even there is pandemic. Negative due to issues on internet connectivity.
R15		They respond positively because being students at Graduate school they are expected to adapt easily the e-learning mode.

Based on result, in general, the students are enjoying, they are happy, interested and eager to study their lessons given by their professors using the e-learning platforms at the comfort of staying at home. Most of the respondents' students are public school teachers, though they have their own internet connection at home; however, some of them could still hardly cope up due to poor signal, slow Wi-Fi connectivity, too many works in school like preparation of modules affecting their time management, etc. There were also times when some of them, especially those who are residing from far flung areas, who join classes using their free data only.

This finding is in consonant with the findings of [15]Barrot, et.al. (2021) that the biggest challenges faced by the students were related to the learning environment at home and the challenges of technology education and proficiency. Regarding the strategies used by students, the most common were resource management and use, seeking help, improving technical skills, managing time, and controlling the learning environment.

Even though the Commission on Higher Education has declared leniency on e-learning classroom issues, the professors always consider the plight of the students by asking them first before implementing any platform or new approaches/strategies. With this action and considerations, the students are motivated and become encouraged to pursue schooling despite the crisis everyone is facing.

This supports [16]Husaini, R. (2020) study stating students look very active when they study online. This can be seen in their active participation in the discussion. In addition, they actively request material that is difficult for them to understand. Students' online activities and participation in discussion are excellent compared to offline lectures.

Based on result, Despite the negative experiences teachers have had with the e-learning classroom, they still enjoy the e-learning mode because they are also learning. But students also have their positive and negative experiences. In an online article, the authors identified both positive and negative types of student experiences. The move from the Face-to-Face classroom to e-learning sessions requires an increase in working hours by students and teachers. Online learning can be time consuming; however, it leads to a very promising result.

Other institutions have already used Zoom, Coursera and other video conferencing platforms to ensure that the teaching and learning process is asynchronous or synchronous. In fact, educators who are used to using and adopting technology in teaching would benefit from these e-learning classrooms. His knowledge and experience with these technological tools made his teaching easy and correct. Much more if the institution will support these initiatives of the faculty.

State Universities and Colleges in the entire Philippines have struggled with the abrupt change of modality from the traditional face-to-face to online learning mode due to lack of technological resources in school to be used by the faculty members and students. In the study of [17]E. Chua et.al (2020), it was stressed that even when the CHED declares leniency, online classroom issue continuously rises. Some institutions have totally suspended their e-learning classroom classes. However, there are still universities that continuously offering simple type of learning on Facebook Messenger and by sending messages via emails in Region IV -A which led them to conclude that many of these HEIs are not yet ready to face the new challenges, but there is a need to provide an urgent solution thus, e-learning classrooms have been created, whether the institution is ready or not.

Same predicament in some institutions in Australia where they also experienced difficulty of switching from Face to Face to online classes especially to teachers and students who do not have access to Wi-Fi or computers.

The whole world is facing similar experiences, although students do enjoy learning online, they also struggle to find solutions to their own problems in order to learn and receive instructions from their professors online.

On problems encountered by the faculty in adopting the E-learning modality?

Despite the leniency of students regarding the use of the e-learning mode, not all students agree with the idea. Reasons include: Poor or no internet connection or signal causing disruption of interactive discussions between students and teachers, delayed submission of applications due to so many student tasks such as attending seminars / training courses and preparing modules and others didactic materials that led to a delay in the presentation of results and, ultimately, in the validity and reliability of the results presented by the students.

However, despite the problems encountered, teachers are getting creative when teaching their classes with the full support of the institution in the delivery of their e-learning classes.

[18]Alsoud, A. (2021) said that Students from remote and disadvantaged areas mainly faced enormous challenges such as technological accessibility, poor internet connections, and difficult study environments.

[19]Dhawan, S. (2020) There are several arguments associated with e-learning. Accessibility, affordability, flexibility, pedagogy of learning, lifelong learning and politics are some of the arguments related to online education. Flexibility is another interesting aspect of online learning. Students can study anytime, anywhere, developing new skills that lead to lifelong learning.

According to [10]A. Ramadani (2020) Teachers had various challenges and experiences during the educational process through the online platform particularly on the evaluation part.

On suggested solutions to improve the intervention?

Given the problems encountered, the researcher has suggestions for improvement, to wit:

First, there must be a common e-learning platform to be used by the professors so that the students will not access too many platforms required by their teachers just to join with their various classes. It will help the students by focusing to only one or two e-learning platforms. Second, after deciding what specific e-learning platform to be used, there must be an intensive training and/or orientation to those who are involved in the e-learning program of an institution by some experts in the field of Information Technology and development of e-resources. Then with the full support coming from the College by providing them the necessary equipment such as laptops, computers, internet connection etc. for more effective and efficient implementation of the said modality. So that even in times of emergency such as COVID-19 pandemic, the school is prepared to overcome possible problems. Therefore, in lieu of textbooks and references, there could be online materials for the faculty members and students to read and work with. Finally, it is advisable to utilize the synchronous online learning because the students could benefit more on this approach. Teachers could utilize a simple video and interact with the students at the same time.

In the webinar conducted by Enderum Colleges worldwide on e-learning, one of the speakers said that some of the suggested best strategies of e-learning in the Philippine setting most especially in giving assessments are as follows: teachers should consider the type of internet access and device, academic load, and current level of digital proficiency, and teachers should provide more time, chances or attempts for students to complete assessments, and give more focus on facilitation over control. In comparison, [17]E. Chua et.al. discloses that the role of e-learning tools in Higher Education Institutions provide students

and teachers with solutions to tasks such as providing internet access at all times and from various locations for each participant in the educational process, creating a common knowledge space and making efficient use of educational resources.

On training of faculty and students, the study of [20]Tariq et.al. (2018) pointed out the benefits of e-learning in showing students a wide range of knowledge. Strategies, tools, and methods need to be implemented in higher education systems to improve the overall outcome of students. In addition, teachers need to be trained to utilize e-learning technologies and therefore various techniques for the overall growth of their students.

3.1. Conclusions

Based on the findings of this study, the following conclusions were drawn:

Despite the negative experiences of most teachers using e-learning mode, they are still ready and will continue to innovate and take initiatives to explore other e-learning platforms just to achieve their teaching and learning goals and objectives. To provide high-quality education, especially during this time of the COVID19 pandemic is necessary. Even without much hands-on experiences with the use of technology, most of the respondents tried using and exploring various free platforms such as: Google Classroom, Zoom, FB Messenger, Google Meet, and Schoology. The professors and the students could easily adapt to these new changes to be aligned in the 21st century skills of learning. Since almost all the respondents agreed that e-learning classrooms are applicable to the courses / subjects they are teaching, they would like the e-learning mode to be sustained along with a limited face-to-face learning mode. A positive reaction from students to the e-learning mode with limited face-to-face learning mode is desirable for better understanding of the lesson, especially if the topics require further explanation / demonstration by the teachers. A specific Learning Management

System is also desirable. Lastly, since the preparation of the e-learning mode is rigorous, teachers need intensive training to effectively use the various e-learning platforms they are currently using to promote both student learning and to upgrade teacher's effectiveness using various technologies necessary in the implementation of e-learning modality.

3.2. Recommendations

Based on the findings and conclusions, the following recommendations are offered:

More support from the administration to inspire and motivate teachers to maintain their positive attitude in adapting the e-learning modality. Faculty members can explore other platforms such as Lark, Odilo, Big Marker, Edmodo, Moodle, and many others that are also accessible for free. Moreover, an effective Learning Management System and / or a flexible learning modality (combination of e-learning mode and face-to-face mode) is strongly recommended. The College may conduct an orientation and / or in-depth training and a workshop for all faculties and students on the various platforms that suit their academic needs and to prepare the entire institution for crises such as COVID 19. Further, lessons, quizzes, examinations, activities per unit may be prepared by the institution or a standard assessment by the department to make sure that the students have learned what they ought to learn. Finally, to conduct an in-depth study to add dimension to this research and to validate its findings.

Limitations and future studies

This study, however, has some limitations. The results have represented the status of the implementation of the E-learning modality by professors in the Graduate School of Ilocos Sur Polytechnic State College. As this study aims to know the experiences of faculty using e-learning modality and to help improve their performance, results of which have been disseminated for its consideration. For future studies along this topic,

an in-depth study on other variables may be considered which may affect/ influence the implementation of the E-learning especially this time of pandemic.

Acknowledgments

References

[1]   R. B. Alday and M. M. R. Pascual, "in-School and Off-School Settings in the," vol. 4, no. 2, pp. 226–228, 2012.

[2]   B. H. G. Jr and B. S. Pucyutan, "E-learning in the Philippines through the Use of Development Tools."

[3]   J. G. Ruiz, M. J. Mintzer, and R. M. Leipzig, "The impact of e-learning in medical education," *Acad. Med.*, vol. 81, no. 3, pp. 207–212, 2006, doi: 10.1097/00001888-200603000-00002.

[4]   S. Lillejord, K. Børte, K. Nesje, and E. Ruud, "Teaching and learning with technology in Higher Education," *Knowl. Cent. Educ. Res. Counc. Norway, Oslo*, 2018.

[5]   R. A. Ebardo, A. Mae, and C. Valderama, "The Effect of Web-Based Learning Management System on Knowledge Acquisition of Information Technology Students at Jose Rizal University," no. December, pp. 17–18, 2009.

[6]   C. Giovannella, "Effect induced by the covid-19 pandemic on students' perception about technologies and distance learning," *Smart Innov. Syst. Technol.*, vol. 197, no. May, pp. 105–116, 2021, doi: 10.1007/978-981-15-7383-5_9.

[7]   M. B. Garcia, "E-Learning Technology Adoption in the Philippines: An Investigation of Factors Affecting Filipino College Students' Acceptance of Learning Management Systems," *Int. J. E-Learning Educ. Technol. Digit. Media*, vol. 3, no. 3, pp. 118–130, 2017, doi: 10.17781/p002374.

[8]   M. Mahdieh, D. Reza, and K. Khalil, "Increasing the effectiveness of Virtual Learning during COVID-19," *Arch. Community Med. Public Heal.*, vol. 6, pp. 174–175, 2020, doi: 10.17352/2455-5479.000100.

[9]   A. Ngampornchai and J. Adams, "Students' acceptance and readiness for E-learning in Northeastern Thailand," *Int. J. Educ. Technol. High. Educ.*, vol. 13, no. 1, 2016, doi: 10.1186/s41239-016-0034-x.

[10]   A. Ramadani and B. Xhaferi, "Teachers' Experiences with Online Teaching Using the Zoom Platform with EFL Teachers in High Schools in Kumanova," *SEEU Rev.*, vol. 15, no. 1, pp. 142–155, 2020, doi: 10.2478/seeur-2020-0009.

[11]   T. P. I. of eLearning, "The Positive Impact of eLearning — 2012 Update," *WHITE Pap. -Education Transform.*, pp. 1–12, 2012.

[12]   A. Z. Al Rawashdeh, E. Y. Mohammed, A. R. Al Arab, M. Alara, and B. Al-Rawashdeh, "Advantages and disadvantages of using E-learning in university education: Analyzing students' perspectives," *Electron. J. e-Learning*, vol. 19, no. 2, pp. 107–117, 2021, doi: 10.34190/ejel.19.3.2168.

[13]   M. Samir Abou El-Seoud, I. A. T. F. Taj-Eddin, N. Seddiek, M. M. El-Khouly, and A. Nosseir, "E-learning and students' motivation: A research study on the effect of e-learning on higher education," *Int. J. Emerg. Technol. Learn.*, vol. 9, no. 4, pp. 20–26, 2014, doi: 10.3991/ijet.v9i4.3465.

[14]   C. D. Francisco and M. C. Barcelona, "Effectiveness of an Online Classroom for Flexible Learning," *Int. J. Acad. Multidiscip. Res.*, vol. 4, no. 8, pp. 100–107, 2020, [Online]. Available: https://ssrn.com/abstract=3697055.

[15]   J. S. Barrot, I. I. Llenares, and L. S. del Rosario, "Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines," *Educ. Inf. Technol.*, vol. 26, no. 6, pp. 7321–7338, 2021, doi: 10.1007/s10639-021-10589-x.

[16] R. Husaini, "Student's response in online learning process: A case study of English Education students," *JETLe (Journal English Lang. Teach. Learn.*, vol. 2, no. 1, pp. 16–22, 2020, doi: 10.18860/jetle.v2i1.10127.

[17] E. Reyes-Chua, B. G. Sibbaluca, R. D. Miranda, G. B. Palmario, R. P. Moreno, and J. P. T. Solon, "The status of the implementation of the e-learning classroom in selected higher education institutions in region IV - A amidst the covid-19 crisis," *J. Crit. Rev.*, vol. 7, no. 11, pp. 253–258, 2020, doi: 10.31838/jcr.07.11.41.

[18] A. R. Alsoud and A. A. Harasis, "The impact of covid-19 pandemic on student's e-learning experience in Jordan," *J. Theor. Appl. Electron. Commer. Res.*, vol. 16, no. 5, pp. 1404–1414, 2021, doi: 10.3390/jtaer16050079.

[19] S. Dhawan, "Online Learning: A Panacea in the Time of COVID-19 Crisis," *J. Educ. Technol. Syst.*, vol. 49, no. 1, pp. 5–22, 2020, doi: 10.1177/0047239520934018.

[20] T. H. Sheikh and R. Gupta, "E-learning for higher education. A case study," *J. Adv. Res. Dyn. Control Syst.*, vol. 10, no. 4 Special Issue, pp. 1539–1545, 2018.