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Lived-Experiences and Perceptions of Teachers in Online Education: Basis for Intervention on its Implementation

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A B S T R A C T

A study described the lived-experiences of teachers who implemented online education in various schools in Palawan. Data were gathered through in-depth interview and researcher-assisted survey questionnaire. Results showed that teachers perceived online education as easily adaptable. Similarly, challenges such as extended time spent in preparing learning materials like modules and digital presentations; complexity of assessing students' works, and inadequate knowledge on tools, applications and the different online teaching techniques and assessment methods. While numerous problems and challenges were encountered, there were also identified opportunities in online education such that it will ensure teachers and students safe from COVID-19 and other communicable diseases; learning can continue in the comfort of the participants' homes; students who are technically advanced can learn fast in online education; students can connect to their teachers more personally using chats or emails; and students living outside the city or town can save more money instead of traveling and renting apartments or boarding houses for face-to-face learning.

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INTRODUCTION

Almost all aspects of our lives are significantly influenced by the availability of information technology, it has become an integral part of our daily activities: in our workplaces, communicating and interacting with other people, collecting and processing data and information, sophisticated data analysis and dissemination, entertainment, and tourism. Palvia, P. et. al., (2018) emphasized that E-evolution or e-revolution has witnessed the development and practice of e-mails, e-commerce, e-government, and now e-education. The approach to teaching and learning has been changed by e-education or online education. Changes in education delivery models have been rapid and transformational as technology is introduced and upgraded time by time. A very dynamic education landscape that has generated immense interest among researchers, educators, administrators, policymakers, publishers, and businesses as institutions worldwide adapt to these changes. E-education facilitates asynchronous as well as synchronous education delivery methods along with access to online discussion boards, chat rooms, and video conferencing instead of "correspondence" courses that started in England which employs sending of printed documents that were subject to long time delays. Online learning started with the advent of the internet and reaches individuals in remote locations, or whoever wants the convenience of eliminating travel time and working comfortably in their homes.

Means, B. et. al., (2013) describe online learning as overlaps with the broader category of distance learning, which encompasses earlier technologies like correspondence courses, educational television, and video conferencing. It was found from the previous studies that distance learning is not significantly different from regular classroom learning in terms of effectiveness. With these findings, policymakers contested that if online instruction is as good as traditional instruction in terms of student outcomes, then online education initiatives could be justified in terms of learners' access in settings where face-to-face instruction is impractical. However, it was suggested that the relative efficiency of online and face-to-face instructions needs to be studied further, in light of today's online learning applications, which can take advantage of a wide range of web resources, including not only multimedia but also web-based applications and new collaboration technologies that are contributors in the learning efficacy of students.

In the Philippines, the term "e-learning" is referred to online learning and utilizes web delivery of instructional content also as associated support services to students. The UPOU exhibits the e-learning modality within the country as just a supplement within once-a-month face-to-face sessions in a learning center to more extensive use of learning management applications as a venue for academic discussions as well as learning assessments, sharing learning resources and content, and students' submissions of course requirements. Another concern raised was how the mobile is getting used to bridge the digital divide and make the digitally excluded sectors of the Filipino society become part of the online learning program of the university. The mechanisms getting used to making sure

quality education in e-learning also because the challenges faced by e-learning institutions are extensively detailed.

The Commission on Higher Education (CHED) Memorandum Order No. 6 series of 2022 with the subject, Sustaining Flexible Learning in Higher Education: An addendum to CMO No. 4, s. 2020 emphasizes the systematic approach to shifting the traditional face-to-face classes to flexible learning modalities, which shall pave the way for the transformation of the Philippine Higher Education system to be responsive to the needs and demands of the Fourth Industrial Revolution (FIRE).

While the implementation of online learning is spreading nationwide, it is evident that many aspects need to be improved. In a qualitative study, utilizing the thematic content analysis conducted by Sabio, R.A., et. al. (2024) titled, Challenges in Implementing Online Learning in Philippine Higher Education: Business Students' Perspective, it was pointed out that there are seven (7) themes emerged as primary challenges in online education such as internet connection problem, too much workload and the problem with meeting the deadlines, difficulty in coping with online pedagogy, limited space at home and issues on the environment, doing household chores while studying, health concerns and financial issues. Furthermore, of the identified (7) themes that were determined, the internet connection problem was the most dominant. Given this finding, policymakers and leaders must address the challenges and consider the findings as inputs to faculty development and other interventions.

Qingqing, T., et. al. (2024) in their study focused on bridging gaps in online learning through a systematic literature review and examined the digital divide, in which revealed that despite advancements in online education technologies, significant disparities persist in access, digital skills, and educational outcomes, particularly affecting marginalized communities in both urban and rural settings. The study underscores the need for enhanced infrastructure, targeted educational policies, and inclusive teaching practices to bridge these gaps. Recommendations are provided for future research directions and practical implementations to mitigate the digital divide's impact on educational equity. The digital divide is not only reflected in gaps in physical infrastructure but also involves multiple dimensions of digital skills, technology adoption, and the integration of educational practices. This study found that teacher competence and self-efficacy profoundly affect online learning outcomes (Asher & Sunaina, 2021). According to Yang and Du (2024), teachers with high self-efficacy are likely to create more effective online learning environments, demonstrating resilience and an enhanced ability to engage students. This is critical to addressing the digital divide, as it affects not only the quality of online instruction but also student engagement and learning outcomes on digital platforms. Teacher resilience and emotion regulation also play important roles in managing online teaching stressors, which can impact the quality of education (Reynolds et al., 2023). The ability to effectively regulate emotions contributes to maintaining a positive learning environment and is associated with reduced burnout and increased job satisfaction, which directly impacts student learning experiences and outcomes in the online environment. Furthermore, intrinsic motivation and

parental support have been identified as key factors influencing student engagement and success in online learning (Zhao et al., 2022). According to Aboobaker and Muneer (2022), motivation is a key driver of learning behaviors and performance, and intrinsic motivation is positively correlated with learning outcomes. Parental support further reinforces this by providing the necessary encouragement and resources required for successful online learning (Chen & Tu, 2021). This study also reveals that additional family responsibilities, such as caring for younger siblings, often negatively impact girls' educational participation (Mathrani, 2022). This suggests that education policies need to take these family responsibilities into account and aim to provide additional support to ensure that all students, particularly those from disadvantaged backgrounds, have equitable access to learning opportunities. These findings emphasize the need to consider a combination of dimensions and factors when addressing the digital divide.

THEORETICAL REVIEW

In the study on lived-experiences of teachers in online learning, the researcher draw on a Self-Determination Theory or SDT (Ryan & Deci, 2024). SDT covers the aspects on motivation and well-being of teachers in the conduct of online learning. This research hypothesized that teachers experienced difficulties in the conduct of online learning.

The Self-Determination Theory

The Self-determination theory (SDT) emphasizes that motivation and well-being require three key prerequisites: (1) autonomy, (2) perceived competence, and (3) a sense of connectedness. All three of these prerequisites are challenged in the implementation of an online program as most teachers (1) did not choose freely to teach through online learning, (2) do not feel sufficiently competent due to a lack of training and education in the use of effective pedagogy in the online learning, and (3) experience a loss of connection with both peers and students (Klusmann et al., 2022).

The first requirement is autonomy. Although teachers do not autonomously choose to teach online, they can be supported to make their own decisions asuch as the teaching-learning strategies and tools that they can use in online curriculum (Kim et al., 2022). Second prerequisite is competence, for digital well-being, and is associated with self-efficacy, a personal job resource representing teachers' confidence in their own capabilities and expertise. To enable teachers to increase their competence and their self-efficacy for online teaching, teachers need to have knowledge about technology, pedagogy, and the content they teach, and must be able to integrate their technological, content, and pedagogical knowledge to deliver the subject matter at hand effectively using the available technological tools (Niess, 2011).

The third prerequisite concerns relatedness. This encompasses feeling connected (to both students and colleagues), feeling cared for, and having a sense of belonging (Ryan & Deci, 2000). Online teaching has proven to be challenging in terms of monitoring student progress, student engagement, interaction with and between students, and creating a positive learning environment (Baroudi &

Shaya, 2022; Ma et al., 2021). The three prerequisites derived from SDT aid in acquiring an understanding of teachers' experiences with and perspectives on online education. Moreover, exploring the online teaching activities that help online teachers connect to their students will provide insight into teachers' sense of relatedness.

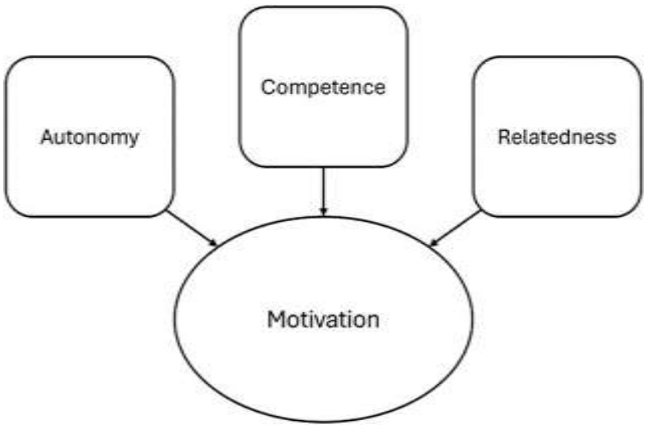

Figure 1. Self-Determination Theory

METHODOLOGY

The study "Lived-Experiences and Perceptions of Teachers in Online Education: Basis for Intervention on its Implementation" is a mixed quantitative-qualitative research that focuses on the perceptions of teachers in online learning experience, particularly the problems, challenges, and opportunities encountered. The study collected data from the respondents of various schools that implemented online learning in school year 2022-2023. The purpose is to assess their perceptions and experiences regarding online learning; thus, it did not require long-term observation.

The research utilized self-administered structured questionnaire to collect data from respondents and a guided in-depth interview. The questionnaires were distributed by the researcher through google form. Respondents completed the questionnaires in schools independently, thus providing a supportive environment for accurate and thorough responses. The questionnaire was designed to be answerable within 30 minutes, ensuring it was not overly time-consuming. In-depth interviews were conducted to the selected participants, though purposive sampling process. It was analyzed and presented in a thematic method to highlight the main findings of the research.

RESULTS

Respondent's Profile

There are forty-three (43) teacher-respondents in the study of which twenty-four (24) or 55.8% are females and nineteen (19) or 44.2% are males.

Table 1. Respondent's Gender and Age

Gender of Teachers	**Age (years old)**				**Total**
	21-30	**31-40**	**41-50**	**51-60**	

Male	7	8	3	1	19 (44.2%)
Female	10	9	3	2	24 (55.8%)
Total	**17 (39.53%)**	**17 (39.53%)**	**6 (13.95%)**	**3 (6.97%)**	**43**

In terms of age bracket, most of the teacher-respondents are on 21-30 and 31-40 years old which has a frequency of seventeen (17) and corresponds to 39.53% of each group. The oldest group of 51-60 years old has the lowest frequency, with only 3 respondents covered.

The teaching assignments of teachers were classified whether Public or Private school and further categorized as Elementary-Level, Junior Highs School-Level, Senior High School-Level, and College-Level.

Table 2. Respondent's Year-Level Assignment and the Type of School Assignment

Type of School	**Teaching Assignment**				**Total**
	Elementary	**Junior HS**	**Senior HS**	**College**	
Public	1	2	7	18	28 (65.11%)
Private	2	3	5	5	15 (34.88%)
Total	**3 (6.97%)**	**5 (11.6%)**	**12 (27.9%)**	**23 (53.4%)**	**43**

For the respondent's teaching assignments in terms of the level they are handling, the data revealed that most of the respondents are teaching at the college level, a total of 23 teacher-respondents correspond to 53.4% are from the college level, while 12 or 27.9%, 5 or 11.6% are assigned in junior high school while 3 or 6.97% are in the elementary level.

In terms of the school they are working, it was revealed that more respondents are from Public Schools which corresponds to 28 or 65.11%, while only 15 or 34.88% are from Private Schools.

Table 3. Respondent's Workplace/Stations

Type of Municipality/City	**Teaching Assignment**				**Total**
	Elementary	**Junior HS**	**Senior HS**	**College**	
	2	2	2	8	

Highly Urbanized City						**14 (32.6%)**
First Class Municipality		1	2	6	12	**21 (48.8%)**
Second Class Municipality		0	1	4	3	**8 (18.6%)**
Total		***3 (6.97%)***	***5 (11.6%)***	***12 (27.9%)***	***23 (53.4%)***	***43***

The respondents were classified also according to the location of their working assignments. Most of the respondents are from First Class Municipality, a total of 21 or 48.8%, while 14 or 32.6% are from Highly Urbanized cities and only 8 or 18.6% are from Second Class Municipality.

The respondents were classified also according to their highest educational attainment as shown in Fig. 1.4. The data gathered revealed that most of the respondents have taken master's units correspondents to 19 or 44.2%, while 10 or 23.3% completed baccalaureate degrees without any master's units, 8 or 18.6% are master's degree holders, 5 or 11.6% with doctoral units and only 1 or 2.3% is a doctorate holder.

Table 4. Respondent's Highest Educational Attainment

Highest Education Attainment	**Subjects Taught in Online Class**							**Total**
	General Elem. Subjects	English/ Mother Tongue/ Filipino	Math	Science	Social Science	MAPE	Major Subjects	
Baccalaureate Degree	0	1	2	1	0	0	6	**10 (23.3%)**
With Master's units	1	1	4	3	2	1	7	**19 (44.2%)**
Master's degree holder	0	0	2	1	1	0	4	**8 (18.6%)**
With units in Ph.D./EdD/ DBA	0	0	0	0	0	1	4	**5 (11.6%)**
Doctorate holder	0	0	0	1	0	0	0	**1 (2.3%)**

Total	***1 (2.3%)***	***2 (4.6%)***	***8 (18.6 %)***	***6 (14%)***	***3 (7%)***	***2 (4.6%)***	***21 (49.9 %)***	***43***

Perceptions of Teachers in Online Education

The teachers perceptions on online education and its implementation according to the following;

a. ease and adaptability;
b. interest;
c. quality of instruction and effectiveness; and
d. applicability in the locality?

Table 5. Perceptions of Teachers in terms of Ease and Adaptability in Online Education

Statements	**SD (1)**	**D (2)**	**N (3)**	**A (4)**	**SA (5)**	**Mean**	**Interpretation**
1. I can deliver the lessons more easily through the online teaching-learning modality.	0	5 (11.6%)	16 (37.2%)	20 (46.5%)	2 (4.7%)	3.29	Neutral
2. I was able to apply the tools and applications available for online learning.	0	0	9 (20.9%)	28 65.1%	6 (14%)	3.93	Agree
3. I feel that I am confident in using an online platform for my classes.	1 (2.4%)	0	10 (23.8%)	22 (52.4%)	9 (21.4%)	3.81	Agree
4. I learn quickly the basic applications and features of the online platform.	1 (2.4%)	0	6 (14.0%)	24 (55.8%)	12 (27.9%)	4.07	Agree
Weighted Mean						***3.78***	***Agree***

Interpretation: *SD-Strongly Disagree (1-1.50); D- Disagree (1.51-2.50); N-Neutral (2.51-3.50); A-Agree (3.51-4.50); SA-Strongly Agree (4.51-5.0)*

In terms of the respondents' perceptions toward the ease and adaptability in conducting online education, most of them perceived that the basic applications and features of online platforms can be learned quickly, they can apply the tools and applications and they are confident in using the online platform for their online classes. On the other hand, the respondents neither agree nor disagree on whether they can deliver their lessons more easily through the online learning modality.

A teacher-respondent elaborated during the in-depth interview when asked whether they found difficulty in adapting online education…

"I was new with online learning, I have not tried this before the pandemic, the use of google classroom, google meet, zoom meeting, etc. were all new. But I found those easy to understand and adaptable. The features can be applied easily and in just short period of time I got familiar with it."

Another respondent narrates…

"Of course at first we were hesitant, especially me that I am not really into technology, but when our school introduced this, I attended series of orientation. When we first tried the new learning modality, during our pilot week of online education, we quickly learned it. I find it easy to use various platforms in online education. Although, for some tools it took me a little bit longer to utilize but generally it was easy and very adaptable."

Table 6. Perceptions of Teachers in terms of their Interest in Online Education

Statements	**SD (1)**	**D (2)**	**N (3)**	**A (4)**	**SA (5)**	**Mean**	**Interpretation**
1. I feel that my students were able to understand quickly the use of our online platform.	*1 (2.3%)*	*11 (25.6%)*	*16 (37.2%)*	*14 (32.6%)*	*1 (2.3%)*	*2.37*	*Neutral*
2. I always look for better ways of conducting classes by utilizing added features in my online learning platform.	*0*	*1 (16%)*	*4 (9.3%)*	*31 (72.1%)*	*7 (16.3%)*	*4.02*	*Agree*
3. I observed my students becoming more interested in attending online classes.	*0*	*12 (27.9)*	*21 (48.8%)*	*9 (20.9%)*	*1 92.3%)*	*2.97*	*Neutral*
4. I never thought of getting absent	*0*	*2 (4.7%)*	*10 (23.3%)*	*22 (51.1%)*	*9 (20.9%)*	*3.89*	*Agree*

in my online classes.							
5. I feel doing online classes is a satisfying and rewarding task.	*0*	*3 (7.1%)*	*16 (38.1%)*	*15 (35.7%)*	*8 (19%)*	*3.58*	*Agree*
Weighted Mean						***3.36***	***Neutral***

Interpretation: *SD-Strongly Disagree (1-1.50); D- Disagree (1.51-2.50); N-Neutral (2.51-3.50); A-Agree (3.51-4.50); SA-Strongly Agree (4.51-5.0)*

Table 6 shows that the respondents' perceptions toward their interest in online education reveal that most of them look for better ways of conducting their classes using more features in online learning, they also aimed of conducting their classes regularly and they mostly feel that doing online classes is satisfying and rewarding. However, they perceived that students somewhat are not learning quickly using this online platform.

In terms of their interest in online education, one respondent explains…

"In the beginning, everyone seemed to be interested but it did not last long. When we encountered difficulties such as frequent internet interruptions even power outages and the rising cost of it, the interest to online learning has significantly decreased. Many of us, including myself just wished we could go back to normal learning modality."

Another teacher-respondent discusses…

"Whenever I learned new techniques to be presented to my class, I feel very interested in conducting online classes, but there were times also that I don't feel interest in the new modality. I guess if you are exploring new teaching styles and if you are equipped with advanced technical-knowledge you will also become interested with it."

In terms of the respondents' perceptions of online learning's quality of instruction and effectiveness (Table 2.3), they believe that they have appropriate tools for the conduct of online classes, the techniques they used make it more meaningful and that students improve their knowledge in the subject taught. On the other hand, teachers are not agreeable that students learn according to the planned objectives in the syllabus and they were also uncertain that the competencies in the curriculum can be achieved by online learning.

Table 7. Perceptions of Teachers in terms of Quality of Instruction and Effectiveness

Statements	***SD (1)***	***D (2)***	***N (3)***	***A (4)***	***SA (5)***	***Mean***	***Interpretation***
1. I am certain that students are learning according to the planned objectives in the course syllabus.	0	3 (7.1%)	17 (39.5%)	21 (48.8%)	2 (4.7%)	2.16	Neutral

2. I feel that the techniques being used for online classes make learning more meaningful.	0	4 (9.3%)	15 (35.7%)	18 (41.9%)	6 (11.6%)	3.61	Agree
3. I have appropriate tools for conducting online learning.	1 (2.35%)	1 (2.35%)	12 (27.9%)	21 (48.8%)	8 (18.6%)	3.79	Agree
4. I observed a significant improvement in my students in the knowledge of the subject I taught.	0	2 (4.7%)	18 (41.9%)	18 (41.9%)	5 (11.6%)	3.61	Agree
5. I believe with the use of online modality the competencies in the curriculum can be achieved.	0	6 (14%)	18 (41.9%)	16 (37.2%)	2 (4.7%)	3.26	Neutral
Weighted Mean						***3.286***	***Neutral***

Interpretation: *SD-Strongly Disagree (1-1.50); D- Disagree (1.51-2.50); N-Neutral (2.51-3.50); A-Agree (3.51-4.50); SA-Strongly Agree (4.51-5.0)*

In terms of the quality of instruction and effectiveness of online education, one respondent explains…

"I think this is the biggest challenge, because we don't have good assessment method for online learning, I really don't know whether our teaching strategies were effective. It's very difficult to measure and even very limited of interaction during online sessions, unlike during classroom learning, we can see the reactions of our students, somehow gives us a clue whether they are learning or not."

This is supported by another respondent saying…

"The quality depends on the achievement of our students, unfortunately we find it difficult to measure their learning in this new modality. Since the assessment were mostly done in forms and performance tasks and those things were done at home without the supervision of the teachers, we can hardly rely if those were their own works or if they directly took from the internet. I am not really certain on this matter."

Table 8. Perceptions of Teachers in terms of Applicability in the Locality

Statements	***SD (1)***	***D (2)***	***N (3)***	***A (4)***	***SA (5)***	***Mean***	***Interpretation***
1. I think online education can be fully implemented in our place.	*0*	*5 (11.6 %)*	*16 (37.2 %)*	*20 (46.5 %)*	*2 (4.7%)*	*2.61*	*Neutral*
2. I think students in the locality can attend an online class.	*1 (2.4 %)*	*0*	*10 (23.8 %)*	*22 (52.4 %)*	*9 (21.4 %)*	*3.81*	*Agree*
3 I believe that our area has available internet infrastructure for online education.	*1 (2.4 %)*	*0*	*6 (14.0 %)*	*24 (55.8 %)*	*12 (27.9 %)*	*4.07*	*Agree*
4. I feel that our area has a stable power supply and could not significantly affect the regular conduct of online classes.	*2 (4.7 %)*	*14 (32.6 %)*	*18 (41.9 %)*	*9 (21.4 %)*	*9 (21.9 %)*	*4.88*	*Agree*
Weighted Mean						***3.74***	***Neutral***

Interpretation: *SD-Strongly Disagree (1-1.50); D- Disagree (1.51-2.50); N-Neutral (2.51-3.50); A-Agree (3.51-4.50); SA-Strongly Agree (4.51-5.0)*

Table 8 shows the respondents' perceptions of the applicability of online education in the locality. The teachers are somewhat undecided whether online education can be fully implemented in their place. On the other hand, they feel that their place has a stable power supply and could not significantly affect the conduct of online classes. They also believe that the locality has an available internet infrastructure for online education and that the students can attend online classes.

In terms of the applicability of online education, one respondent explains…

"With the availability of internet connection and the capability of our students to have smart phones and some with laptop or tablet for online learning, I think online learning is very much applicable in our area."

Problems, Challenges and Opportunities in Online Education

The following tables present the problems, challenges, and opportunities encountered by teachers in the implementation of online education in Palawan. It was revealed that the most common problem in the implementation of an

online class in Palawan is that many students do not have appropriate gadgets/computers to use for online education. The unavailability of these devices resulted in very low accessibility and participation in online classes. The second problem is the poor internet connectivity in the area. Many rural areas do not have internet infrastructure. While the third is that majority of the students are financially challenged with very limited resources. The fourth is due to unavailable broad bands and fiber connections resulting to majority of the students use only data for their internet connectivity. The fifth most common problem is that many students showed less interest in attending online classes. Other problems encountered are presented in table 3.1.

Table 9. Problems Encountered by Teachers in Online Learning

No.	**Problems Encountered**	**Frequency**	**Percentage**	**Rank**
1	*Poor internet connectivity in my area.*	34	79.1 %	2
2	*Frequent power outages within my online class schedules.*	21	48.8 %	10
3	*High cost of monthly internet subscription.*	23	53.5 %	8
4	*I am not proficient in using technology and gadgets to conduct online sessions efficiently.*	3	7 %	21
5	*I do not have a laptop or desktop to use for an online class.*	1	2.3 %	22.5
6	*The school does not provide internet allowance for online classes.*	4	9.3 %	19.5
7	*I only use a smartphone with limited applications for my online class.*	6	14 %	16
8	*The school does not have the allocated facility for teachers to conduct online classes.*	7	16.3 %	14
9	*I have limited knowledge of online tools/learning management applications for my online classes.*	7	16.3 %	14
10	*I do not have sufficient training on the online learning platforms used by the school.*	7	16.3 %	14
11	*When conducting online classes from home, the place is not free from distractions.*	19	44.2 %	11
12	*I have limited learning materials (modules and course presentations) to use for online classes.*	12	27.9 %	12
13	*I am not comfortable conducting online classes.*	5	11.6 %	17.5
14	*I feel stressed whenever I conduct online classes.*	4	9.3 %	19.5

15	*I easily get distracted while conducting online classes.*	5	11.6 %	17.5
16	*Many students do not have appropriate gadgets/computers to use for online education.*	37	86 %	1
17	*The majority of my students use only data for their internet connectivity.*	31	72.1 %	4
18	*Many students showed less interest in attending online classes.*	26	60.5 %	5
19	*Poor participation from students during online classes*	25	58.1 %	6.5
20	*Many students are often affected by power outages.*	22	51.2 %	9
21	*The majority of my students are financially challenged with very limited resources.*	33	76.7 %	3
22	*Most of the students are not observing academic honesty when taking exams and submitting requirements.*	25	58.1 %	6.5
23	*Develops anxiety (others)*	1	2.3 %	22.5

Total Respondents: n (f) = 43

When asked about the problems they encountered, a teacher-respondent shares…

"The biggest problem is that significant number of our students are not equipped with the proper ICT tools, especially gadgets such as tabs or laptops, most of them just use smart cellphones with very limited applications. Unlike those who use laptops, that can participate in most of activities since they can use various programs and software in their computers. Also, the province experiences frequent power outages that can affect also internet connectivity. Financial aspect was also a factor since many parents do not have enough income to spend for internet subscription while some are relying on data, which could yield also huge cost."

Another teacher says…

"The capacity-building was not enough, I do not have thorough knowledge on the use of platforms. I could not use various techniques due to limited trainings. Assessment also was very difficult. Also, the interaction between teacher and students were significantly reduced."

In terms of the challenges experienced by teachers in online learning, extended time spent in preparing learning materials such as modules and presentations to be used in an online class was the most common challenge encountered by the teachers, also spending extra time for evaluation and marking students works as the second highest challenge, third is trying to enhance their knowledge on tools and applications that can be used for online classes through attending webinars and watching video clips that are related to the topic. Another challenge is the utilization of different techniques to encourage students' engagement in the class. Also, the development of appropriate assessment types became a challenge to the teachers.

Table 10. Challenges Faced by Teachers in Online Learning

No.	Challenges Encountered	Frequency	Percentage	Rank
1	*I tried enhancing my knowledge of tools and applications that I can use for online classes by attending webinars and watching videos related to the topic.*	**29**	70.7 %	**3**
2	*I trained myself in the use and basic troubleshooting of different computer hardware to enhance my skills.*	**22**	53.7 %	**8**
3	*I always extend my work to prepare learning materials such as modules and presentations for my online class.*	**34**	82.9 %	**1**
4	*I often move to another place for better internet connection or during scheduled power blackouts just to conduct online classes.*	**24**	58.5 %	**6**
5	*I utilized different techniques to improve the engagement of students.*	**28**	68.3 %	**4**
6	*I give assessments in various formats to minimize if not eliminated academic dishonesty.*	**23**	56.1 %	**7**
7	*I spend extra time evaluating and marking students' works and outputs.*	**32**	78 %	**2**
8	*I attended webinars on mental health issues to better deal with stress.*	**17**	41.5 %	**9**
9	*I asked friends or relatives for financial support to provide additional resources for online classes.*	**4**	9.8 %	**11**
10	*I felt that the abrupt change in learning modality somehow affected my health, and prompted me to monitor it closely.*	**14**	34.1 %	**10**
11	*I tried formulating appropriate assessments for my students.*	**25**	61 %	**5**

Total Respondents: n (f) = 41

On the other hand, the identified opportunities are as follows: (1) Online learning will ensure teachers and students are safe from COVID-19; (2) Learning can continue in the comfort of our homes; (3) Students who are technically advanced can learn fast in online education; (4) Students can connect to their teachers more personally using chats or emails; (5) I asked friends or relatives for financial support Students living outside the city or town can save more money instead of traveling and renting apartments/boarding houses; (6) With adequate knowledge in technology, students can see more presentations in various media; (7) Assessment can be done in various forms; (8) With recorded online sessions, students can have access to the materials more often; (9) More learning materials are readily available online that are interesting to students; and (10) Students will have more time to attend to their school activities when classes are done online.

Table 11. Opportunities Observed by Teachers in Online Learning

No.	*Opportunities Identified*	*Freq*	*Percentage*	*Rank*
1	*Learning continues even students are in their homes and anywhere else as long as the internet connection is available.*	**34**	79.1 %	**2**
2	*Online learning will lower the risk of being infected by COVID-19 and other communicable diseases.*	**39**	90.7 %	**1**
3	*Students who are technically advanced can learn fast in online educ*	**33**	76.7 %	**4**
4	*More learning materials are readily available online that are interesting to students.*	**20**	46.5 %	**9**
5	*With adequate knowledge of technology, students can see more presentations in various media forms.*	**32**	74.4 %	**6.5**
6	*Students can connect to their teachers more personally using chats or emails.*	**33**	76.7 %	**4**
7	*With recorded online sessions, students can have access to the materials more often.*	**29**	67.4 %	**8**
8	*Assessment can be done in various forms.*	**32**	74.4 %	**6.5**
9	*I asked friends or relatives for financial support Students living outside the city or town can save more money instead of traveling and renting apartments/boarding houses.*	**33**	76.7 %	**4**
10	*Students will have more time to attend to their school activities when classes are done online.*	**11**	25.6 %	**10**

Total Respondents: n (f) = 43

What are the gaps and deficiencies in the effective implementation of online education?

1. *No sufficient time to prepare their materials for online learning.*
2. *No sufficient time to evaluate and mark students' papers.*
3. *Inadequate knowledge and skills in the use of various tools for online learning.*
4. *Limited strategies in engaging students.*
5. *Lack of appropriate technology for assessment.*
6. *Poor internet connection.*
7. *No clear policy on academic dishonesty for online learning and assessment.*
8. *Inadequate skills in the use of computer software and hardware.*
9. *Experiences of mental stress in online learning during the pandemic.*
10. *Negative impact on the health condition of teachers.*
11. *Limited resources needed for online learning.*

Coping Mechanisms of Teachers in Online Education

Some of the coping mechanisms of teachers identified are as follows: (1) Collaborated with fellow faculty members in preparing learning materials for online classes; (2) Applied the skills learned from webinars and workshops attended; (3) Took the situation from a different light to make it positive despite of the difficulties; (4) Researched on my own on various effective instructional materials for online learning; (5) Communicated personally with my students to track their progress.

Table 12. Coping Mechanisms of Teachers to Adapt the Implemented Online Education

No.	Coping Mechanisms of Teachers	Frequency	Percentage	Rank
1	*Collaborated with fellow faculty members in preparing learning materials for online classes.*	**38**	88.4 %	**1**
2	*Strategized the conduct of online classes to maximize learning opportunities for students.*	**31**	72.1 %	**6**
3	*Sought professional help from IT personnel on the effective conduct of online learning.*	**24**	55.8 %	**8.5**
4	*Asked for support from the Department Chairperson, Dean, or Immediate Supervisor.*	**24**	55.8 %	**8.5**
5	*Took the situation in a different light to make it positive despite the difficulties.*	**33**	76.7 %	**3.5**
6	*Solicited emotional support from family, friends, and colleagues.*	**17**	39.5 %	**10**
7	*Researched my own various effective instructional materials for online learning.*	**33**	76.7 %	**3.5**
8	*Applied the skills learned from webinars and workshops attended.*	**35**	81.4 %	**2**
9	*Communicated personally with my students to track their progress.*	**32**	74.4 %	**5**
10	*Asked for comfort and guidance through prayers and meditation.*	**28**	65.1 %	**7**
11	*Resorted to doing my hobbies such as cooking, playing, watching TV, etc.*	**15**	34.9 %	**11**

Total Respondents: n (f) = 43

Interventions

Based from the results and findings of the study in relation to teachers' experiences in the conduct of online education, the following are recommended to help improve the conduct of the said learning modality.

1. Trainings and workshops on preparing online presentations such as PowerPoint presentations, canva, video editing, posters, and infographics in digital forms must be provided to all teachers implementing online education. Adequate time and resources must be allocated before the conduct of online classes. This is to ensure readiness and the quality of the learning materials needed to carry out the teaching-learning activities during online classes.
2. Trainings on the use of the Learning Management System and the online platform to be utilized. Students and teachers must be familiar with the use, applications, features, and limitations of the platforms such as google classrooms, google meet, zoom, Microsoft Teams, and others.
3. Seminars and workshops for teachers on preparation and development of assessment tools appropriate for online learning.
4. Teachers must also be provided with trainings on mental health support and first-aid to attend to those students who are found to have struggles and anxiety in attending online education.

CONCLUSIONS AND RECOMMENDATIONS

Teachers perceived online education as easily adaptable, they can apply the tools, techniques and applications in their teaching strategies and showed confidence in using the online platform for their classes. On the other hand, teachers somewhat undecided whether online education is interesting or not, same result was revealed in terms of the effectiveness of online education. Contrary to interest and effectiveness, teachers believe that online learning can be applied in their respective places given the available internet infrastructure.

Numerous problems were encountered by teachers in the conduct of online education. The most common problem was that many students do not have appropriate gadgets/computers to use, poor internet connectivity, majority of the students are financially challenged with very limited resources, unavailability of broadband and fiber connections resulting to majority of the students use only data for their internet connectivity and many students showed less interest in attending online classes.

The challenges include extended time spent in preparing learning materials such as modules and presentations, added time for evaluation and marking students works, enhance the knowledge on tools and applications that can be used for online classes through attending webinars and watching video clips that are related to the topic, the utilization of different techniques to encourage students' engagement in the class and the development of appropriate assessment types became a challenge to the teachers.

The following are recommended: (1) to ensure the conduct of training on the use of online platform, the various teaching tools and computer applications for teachers prior to the implementation of online learning modality; (2) to provide the teachers appropriate tools and computer hardware for seamless conduct of online learning; (3) to ensure availability of internet infrastructure in

the area where online learning will be conducted; (4) to consider the economic and mental health aspects of online education to make it holistic, the institution must conduct mental health assessment and support to those attending online learning; and (4) for teachers to attend training on online assessment methods.

FURTHER STUDY

Future studies may explore a larger and more diverse sample of teachers across different regions to capture varied online teaching contexts. Longitudinal research could also examine how teachers' perceptions and coping strategies evolve over time, and evaluate the effectiveness of targeted interventions designed to address challenges identified in this study.

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