Pre-Service Teachers' Preparedness and Perspectives on Online Practice Teaching

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***Abstract*— The COVID-19 pandemic brought drastic changes in the education landscape. Schools and universities need to suspend face-to-face learning modality and shifted to flexible learning modalities such as online learning in order to continue delivering quality education among learners. With this, students' academic formations were catered through online modalities, such as online practice teaching among pre-service teachers. This study was conducted to assess the preparedness of pre-service teachers for online practice teaching of University of Saint Louis. A mixed method of research involving both quantitative and qualitative research methods was used in the study. The respondents of the study were the 42 Third Year Teacher Education students of the School of Education, Arts and Sciences (SEAS) who will have their practice teaching by First Semester of School Year 2021-2022. Results reveal that pre-service teachers are prepared for their online teaching practicum since they are already equipped with the necessary skills and competencies in online teaching, such as technopedagogical competence, creating an effective learning environment, designing the online teaching process, and understanding the learner. In addition, their preparedness in their online practice teaching varies in terms of their familiarization with the university's learning management system and the different online learning platforms, and even the presence of a conducive learning space for their practicum. Finally, the online practice teaching posed both benefits and also issues and difficulties.**

Keywords— ***pre-service teachers, online teaching practicum, teacher education, online learning, technopedagogical competence, creating an effective learning environment, designing the online teaching process, understanding the learner***

I. INTRODUCTION

Practice teaching is an integral part of the teacher education program. Its main goal is to provide practice teaching with practical teaching experience (Ersin & Atay, 2021). During this period, pre-service teachers would gain experience and be aware of how teachers go about the many and nuanced activities involved in actual classroom instruction. In fact, the practicum experience is the most difficult and stressful part of the teacher education program (Kang, 2020; Kosar & Bedir, 2019). Pre-service teachers will use the practicum to link theory and practice in a real-life classroom environment. It is no longer sufficient to learn about teaching or watch others teach, as students have done for years. Knowing how to teach involves getting useful skills, similar to knowing how to play an instrument. PTs develop their teaching abilities by participating in classroom activities, being motivated by reflection, and gaining input from cooperating teachers and university supervisors. Lee et al. (2012) discovered that student teaching experiences had an effect on teacher applicants in five areas: pedagogical material awareness, planning and training for instruction, classroom management, fostering family engagement, and professionalism. Such practical experience and insight are difficult to pass on from generation to generation. PTs need techné (knowing how), and they progressively establish phronesis by linking their teaching skills to episteme (knowing what) through reflection in practice teaching (practical wisdom).

Practice teaching is normally done face-to-face; however, due to the COVID-19 pandemic, academic institutions have shifted to flexible learning modalities. The Commission on Higher Education (CHED) stressed the implementation of flexible learning in all colleges and universities. It also requested universities to take the lead and offer courses in both synchronous and asynchronous formats. CHED (2020) defines flexible learning as a pedagogical approach allowing flexibility of time, place, and audience including, but not solely focused on, the use of technology. Although it commonly uses the delivery methods of distance education and facilities of education technology, this may vary depending on the levels of technology, availability of devices, internet connectivity, level of digital literacy, and approaches. The University of Saint Louis (USL), a CICM Higher Education Institution in the Cagayan Valley Region, responded to the call of CHED with regard to the implementation of online learning. USL introduced four online learning modalities that are responsive to the needs of its students across all levels. These include the following: full online learning, blended learning, correspondence (Print) learning, and correspondence (Electronic print) learning. Of the four learning modalities of the university, blended learning and full online learning were considered the most preferred learning modalities for the SY 2020-2021 (Pattaguan et al., 2021). In addition, full online learning modality has the most enrollees of the four. Additionally, the school utilizes the NEO-Learning Management System (NEO-LMS) as the primary platform for communicating with students, assigning and submitting learning tasks, and conducting concurrent major examinations. Each student and teacher is assigned a unique username and

password to access the NEO-LMS. Additionally, students are introduced to a variety of online learning platforms, including Zoom, Google Meet, Discord, and Facebook Messenger.

In online learning, teachers were instructed to supplement their courses with additional materials and maintain close contact with students, especially those who had difficulty accessing the Internet (Callao & Yazon, 2020; Estira, 2020; Fabito, Trillanes & Sarmiento, 2020). Owing to the rapid transfer of schools to online learning as a result of the COVID-19 pandemic, questions have been raised about the quality of education and students' preparedness to deal with the new situation (Ali, 2020; Kidd & Murray, 2020), such as the pre-service teacher education program of the University of Saint Louis (USL). Throughout the years, USL has been producing competent and Christian-missionary teacher education graduates as manifested in its high employability rate, high satisfaction rating from school leaders and administrators, and high performance rating in the Licensure Examination for Teachers (LET) both in the elementary and secondary levels. Prior to the COVID-19 pandemic, pre-service practice teaching in the Teacher Education was a one-year (two-semester) program to prepare pre-service teachers in the actual field. They are employed for one semester in the USL-Basic Education Department and one semester in a public school. However, with the current educational set-up brought by the COVID-19 pandemic, where the traditional face-to-face learning modality is suspended, pre-service teachers do not have the opportunity to do the in-campus and off-campus teaching program in a face-to-face set-up. This means that pre-service teachers had to do their practice teaching through distance education, such as online learning. Hence, they need to cope with the demands of the current educational landscape, which is online learning.

The ability of students to perform in an online educational environment is critical. The need to consider students' preparedness for online learning is more important than ever, as online learning is becoming more common in educational environments around the world as a result of the COVID-19 pandemic's lockdown of schools and universities. Most teacher education programs did not even consider developing an online practicum experience for pre-service teachers before March 2020, as the face-to-face modality has always been regarded as a required and untouchable element of entry into the teaching profession (Mutton, 2020; Assuncao Flores & Gago, 2020; Kim, 2020). There appears to be limited research on delivering a practicum course in an online environment for pre-service teachers who expect to teach in a face-to-face setting (Hartshorne et al., 2020; Van Nuland et al., 2020). With this shift, pre-service teachers must possess the necessary skills and competencies required for online learning since it is expected that face-to-face classes are still suspended for the next school year. Given that pre-service teachers' preparedness for online teaching modalities may influence their perceptions and behavior in the event of an emergency, it is critical to assess their preparedness for this type of set-up (Dorsah, 2021; Dewa, 2020). According to researchers, the fundamental value of education, regardless of format, has been to promote student achievement in learning. Hence, it is important to assess pre-service teachers' preparedness and even the issues and difficulties in adapting this kind of educational set-up (Hill, 2021; Gheyssesn et al., 2020; Lander et al., 2020). Hence, this study is conducted.

II. METHODS

This study utilized both quantitative and qualitative types of research. For the quantitative type, the researchers utilized the descriptive survey method to determine the preparedness of pre-service teachers for online practice teaching. Meanwhile, for the qualitative method, the researchers employed the basic qualitative research by Merriam and Tisdell (2016) to explore the perceptions of pre-service teachers on their online practice teaching. The respondents of the study were the 42 Third Year Teacher Education students of the School of Education, Arts and Sciences (SEAS) who will have their practice teaching by First Semester of School Year 2021-2022.

This study utilized a questionnaire with three parts. The first part of the questionnaire consists of items that elicit the profile of the pre-service teachers such as gender, field of specialization, program specialization, type of internet connectivity at home, gadget/s used for online learning, learning resources and environment, and familiarization with the use of different learning management systems. The second part of the questionnaire describes the preparedness of pre-service teachers on their online practice teaching. The questionnaire was adapted from a validated tool developed by Yildirim and Kalman (2017). The tool consists of 22 items divided into four major dimensions: Technopedagogical Competence, Creating an Effective Learning Environment, Designing the Online Teaching Process, and Understanding the Learner. Respondents answered the items based on a five-point Likert scale, which are as follows:

Score	**Description**
4	Fully Prepared
3	Prepared
2	Less Prepared
1	Not Prepared

Prior to the administration of the questionnaire, it underwent expert validation and review among three educational leaders. Finally, the third part of the tool is an open-ended questionnaire to explore the perceptions of the pre-service teachers on online practice teaching.

Quantitative Data Analysis

Frequency and Percentage were used to describe the profile of the respondents.

Weighted mean was used to determine the level of preparedness of the pre-service teachers for online practice teaching with the following range and qualitative description:

Range	Qualitative Description
3.50 – 4.00	Highly Prepared
2.50 – 3.49	Prepared
1.50 – 2.49	Less Prepared
1.00 – 1.49	Not Prepared

Independent Sample T-Test and One Way Analysis of Variance (ANOVA) were used to determine significant difference in the level of preparedness of the pre-service teachers for online practice teaching when grouped according to profile variables.

Qualitative Data Analysis

The responses of the respondents to the open-ended question were analyzed following three major stages: open coding, axial coding, and selective coding (Creswell, 2007; Merriam & Tisdell, 2016). While reading the interview transcripts, open coding was done by literally underlining and highlighting significant statements and writing notes and comments on the margin. Initials codes were identified based on the significant statements and marginal notes. Open coding was repeatedly done across all the pages of the transcripts. Axial coding was also used after the open coding by classifying and tabulating the identified initial codes, and the similarity or identity of the meanings of the initial codes will be the basis for classification and tabulation. The initial categories were subjected to selective coding, the final stage of qualitative data analysis, whereby overlapping categories were lumped together after a thorough analysis.

The number of categories was finalized using the CERES criteria for the determinations of categories (Ballena & Liwag, 2019): (1) Conceptual congruence, (2) Exclusivity, (3) Responsiveness, (4) Exhaustiveness, and (5) Sensitivity. Conceptual congruence of themes was observed when all of them belonged to the same conceptual level; in short, parallelism was observed in the phraseology of themes. Second, exclusivity means that one identified theme should mutually exclude the others; thus, overlapping of themes will be avoided. Third, responsiveness was maintained when the identified themes were the direct answers to the research problems or objectives. Fourth, exhaustiveness was followed when the identified themes were enough to encompass all the relevant data in the transcripts. Fifth and last, sensitivity was observed when the identified themes were reflective of the qualitative data; in short, they had strong and material support from the data.

III. RESULTS

Table 1. Profile of the Respondents

Profile Variables	Frequency (n=42)	Percentage (%=100.00)
Gender		
Male	15	35.70
Female	27	64.30
Program or Specialization		
Bachelor of Elementary Education	9	21.40
Bachelor of Secondary Education major in English	8	19.00
Bachelor of Secondary Education major in Mathematics	9	21.40
Bachelor of Secondary Education major in Social Studies	10	23.80
Bachelor of Physical Education (BPEd)	6	14.30
Type of Internet Connection		
Wi-fi	25	59.50
Mobile Data	17	40.50
Gadget/s Used in Online Learning		
Mobile Phone	10	23.80
Laptop Computer	2	4.80
Both Mobile Phone and Laptop Computer	30	71.40
Dedicated Learning Space at Home		
With Conducive Learning Space	5	11.90
With Learning Space but with minimal Source of Distraction	21	50.00
With Learning Space but not Conducive	16	38.10
Availability of Learning Resources at Home		
Print Learning Materials	2	4.80
Electronic Learning Materials	1	2.40
Online Learning Materials	21	50.00
Two or more learning materials	17	40.50
None	1	2.40
Familiarization in the Use of the Learning Management System		
Very Familiar	13	69.00
Familiar	29	31.00
Less Familiar	0	.00
Not Familiar	0	.00
Familiarization in the Use of different online learning platforms (Zoom, Google Meet, Facebook Messenger, Microsoft Teams)		
Very Familiar	17	40.50
Familiar	25	59.50
Less Familiar	0	.00
Not Familiar	0	.00

Table 1 presents the profile of pre-service teachers. It can be shown from the results that there are more female pre-service teachers than male pre-service teachers in the study.

They are enrolled in the different programs and specializations offered by the university. Along the type of internet connection used at home, there are more respondents who are using Wi-Fi than mobile data. Furthermore, most of the respondents use both mobile phone and laptop computer in their online learning. However, more than half of the respondents have a learning space at home but with minimal source of distraction. In addition, many of them have access to online learning materials at home. Majority of them are familiar with the use of the university's learning management system and are also familiar with the use of different online learning platforms such as Zoom, Google Meet, Facebook Messenger, and Microsoft Teams.

Table 2. Pre-Service Teachers' Preparedness on Online Practice Teaching

Dimensions	Mean	Qualitative Description
Understanding the Learner	2.92	Prepared
Creating an Effective Learning Environment	2.99	Prepared
Designing the Teaching Process	3.05	Prepared
Technopedagogical Competence	3.06	Prepared
Overall Mean	3.01	Prepared

Table 2 shows the pre-service teachers' preparedness on online practice teaching. It can be shown from the table that pre-service teachers are prepared along understanding the learner, creating an effective learning environment, designing the teaching process, and technopedagogical competence. Along understanding the learner, pre-service teachers are prepared for their online practice teaching because they are already knowledgeable with subject matter concepts, knowledge, and skills in ways that enable their students to learn. At the same time, they can understand how much students in their class have learned. More importantly, pre-service teachers can create challenging and appropriate learning and success expectations for their students. Finally, they are also knowledgeable about the needs of their students, regardless of their learning styles and multiple intelligences.

Along creative an effective learning environment, pre-service teachers believe that they can understand how students' family and cultural backgrounds affect their learning, identify and address special learning needs and difficulties, and engage students in cooperative group work in an online learning environment. They also believe that they are prepared to choose learning strategies for different instructional purposes and meet different students' needs. In addition, respondents can plan instruction by using knowledge of learning subject matter, curriculum, and student development.

Meanwhile, along designing the teaching process, pre-service teachers feel that they can develop a classroom environment that promotes social development and group responsibility. Furthermore, they can use effective verbal and non-verbal communication strategies to guide student learning and behavior in an online environment. They can also use questions to stimulate different kinds of student learning and can help them learn to think critically and solve problems. Pre-service teachers can also encourage students to see, question, and interpret ideas from diverse perspectives. Moreover, they can help students learn how to monitor and assess their own learning and provide descriptive feedback to assist learners improve their academic performance.

Finally, along technopedagogical competence, pre-service teachers feel prepared to help students become self-motivated and self-directed and achieve high academic standards despite the new learning modality. More importantly, they can evaluate and monitor student success and provide relevant learning content from reliable websites and other electronic resources. Furthermore, pre-service teachers can deal with online classroom issues such as plagiarism and academic integrity. They can also develop online group collaboration and teamwork and can communicate effectively online with learners. Lastly, they can use online instructional strategies that promote active student learning and integrate technology for quality teaching and learning.

Table 3. Significant Difference on the Pre-Service Teachers' Preparedness on Online Practice Teaching when grouped according to Profile Variables

Profile Variables	df	t-value/ F-value	P-value	Decision
Gender	40	-1.059	.296	Not Significant
Program/Specialization	4	.978	.431	Not Significant
Type of Internet Connection	40	-.757	.453	Not Significant
Gadget/s Used in Online Learning	2	1.983	.151	Not Significant
Dedicated Learning Space at Home	2	9.781	.000	Significant
Availability of Learning Materials at Home	4	.957	.442	Not Significant
Familiarization to the Learning Management System	40	2.316	.026	Significant
Familiarization to different Online learning Platforms	40	4.575	.000	Significant

**significant at .05 level*

Table 3 shows the significant difference on the pre-service teachers' preparedness on their online practice teaching when grouped according to profile variables. It can be shown from the results that there is a significant difference on the pre-service teachers' preparedness on their online

practice teaching when grouped according to dedicated learning space at home, familiarization to the learning management system, and familiarization to different online learning platforms. Hence, the null hypothesis is rejected. This means that the assessment of the respondents on their preparedness on online practice teaching varies regardless of these profile variables.

Meanwhile, there is no significant difference on the pre-service teachers' preparedness on their online practice teaching when grouped according to gender, program and specialization, type of internet connection at home, gadget/s used in online learning, and availability of learning materials at home. Hence, the null hypothesis is accepted. This means that means that the assessment of the pre-service teachers on their preparedness on online practice teaching varies regardless of these profile variables.

Table 4. Post-Hoc Test Analysis on the Significant Difference on the Pre-Service Teachers' Preparedness on Online Practice Teaching when grouped according to Dedicated Learning Space at Home

Dedicated Learning Space at Home	Mean	With Conducive Learning Space	With Learning Space but with minimal Source of Distraction	With Learning Space but not Conducive
With Conducive Learning Space	3.44	1		
With Learning Space but with minimal Source of Distraction	2.86	.000*	1	
With Learning Space but not Conducive	2.97	.001*	.423	1

Table 4 shows the post-hoc test analysis on the significant difference on the pre-service teachers' preparedness on online practice teaching when grouped according to dedicated learning space at home. It can be shown from the results that pre-service teachers with conducive learning spaces at home are more prepared in their online teaching practicum than those with learning spaces but with minimal source of distraction and those with learning spaces but not conducive.

Table 5. Significant Difference on the Pre-Service Teachers' Preparedness on Online Practice Teaching when grouped according to Familiarization to the Learning Management System

Familiarization to the Learning Management System	Mean	df	t-value	P-value	Decision
Very Familiar	3.26	40	2.316	.026	Significant
Familiar	2.89				

Table 5 shows the significant difference on the pre-service teachers' preparedness on online practice teaching when grouped according to familiarization to the learning management system. It can be shown from the results that those pre-service teachers who are very familiar with the university's learning management system are more prepared in their online practice teaching than those who are familiar with the university's learning management system**.**

Table 6. Significant Difference on the Pre-Service Teachers' Preparedness on Online Practice Teaching when grouped according to Familiarization to Different Online Learning Platforms

Familiarization to Different Online Learning Platforms	Mean	df	t-value	P-value	Decision
Very Familiar	3.36	40	4.575	.000	Significant
Familiar	2.77				

Table 6 shows the significant difference on the pre-service teachers' preparedness on online practice teaching when grouped according to familiarization to different online learning platforms. The table revealed that those pre-service teachers who are very familiar with the different online learning platforms are more prepared in their online teaching practicum than those who are familiar.

Pre-Service Teachers' Perceptions on their Online Practice Teaching

Results of the open-ended questions among pre-service teachers revealed two major themes with regard to their perceptions on their online practice teaching: (1) Perceived Benefits of Online Practice Teaching and (2) Perceived Challenges and Difficulties of Pre-Service Teachers on their Online Practice Teaching.

A. Perceived Benefits of Online Practice Teaching

It was revealed in the study that, according to pre-service teachers, there are four major benefits of their engagement to online practice teaching for this academic year. These include the following: (1) Application of Knowledge, Skills, and Attitudes in an Online Classroom, (2) Accessibility of Pre-Service Teachers to Diverse Learners, (3) Enhancement

of Creativity and Innovativeness, and (4) Safe and Viable Alternative Mode of Practicum to Ensure Physical Health and Wellness.

1. Application of Knowledge, Skills, and Attitudes in an Online Classroom

One of the perceived benefits of having an online practice teaching as perceived by the pre-service teachers is the application of the knowledge, skills, and attitudes gained from their three years of academic lives into the teaching practice despite the new learning modality. Through online practice teaching, pre-service teachers can apply all the educational theories and principles they have learned on the actual virtual classroom practice. Some of the responses of the respondents are as follows:

> PT25: *I perceive online practice teaching as a stepping stone for me to become ready in my profession as a teacher. Despite the restriction of having a face-to-face practice teaching, I still believe that online practice teaching will also help me to really apply all that I learned in terms of pedagogy and classroom management.*

> PT30: *On my perception, online practice teaching is somehow close to what in campus looks like before but everything will be done in an online platform. We'll be endorsed t our cooperating teacher whom will let us join in online video conference to assist them in teaching and learning process. I think aside from demo teaching through online platforms, we will also be tasked to monitor students' grades and come up with instructional materials that can be utilized by students online. Hence, I still believe that online practice teaching practicum is still the same way of doing practicum which is application of knowledge, skills and attitudes that are part from our pre-service teacher's formation.*

2. Accessibility of Pre-Service Teachers to Diverse Learners

Another important perceived benefit of having an online teaching practicum is the idea that pre-service teachers will have more opportunities to relate and interact with their students through the different online learning and communications platforms available. Some of their responses are as follows:

> PT12: *Despite the fact that we will not be able to meet our students personally, still I perceive that our online practice teaching will offer a new perspective in teaching which is it enhances more our interactions with our students. With the use of social media tools, we will be able to communicate more with them anytime and anywhere. In this sense, we can be able to help them more especially with their learning and academic needs.*

> PT14: *I think one of the advantages of online teaching practicum is its flexibility in the sense that learning happens anytime and anywhere with the help of the internet. In addition, because of technology, it will not be difficult for met to contact my learners for feed backing and monitoring purposes especially that Generation Z learners are generally visual learner and technology experts.*

3. Enhancement of Creativity and Innovativeness

It is important to note that some of the respondents also stressed the idea that conducting an online teaching practicum would enhance their competencies along creativity and innovation, which are important in the 21st century educational parlance. Some of their responses are as follows:

> PT04: *It will be difficult to engage in this kind of learning setup maybe for the first few weeks of our immersion, but I think, our OJT will be an opportunity for us to be more creative and innovative especially in making instructional strategies and even assessment techniques that are responsive to the needs of my learners.*

> PT10: *I believe that online practice teaching requires creativity in terms of designing different activities and pedagogy to surely inculcate authentic learning among students.*

4. Safe and Viable Alternative Mode of Practicum to Ensure Physical Health and Wellness

Finally, many pre-service teachers claim that the practice teaching for this academic year should still be implemented since this is part of the teacher education program curriculum. Hence, they view online practice teaching as the most viable alternative mode of practicum to ensure health and safety among pre-service teachers, especially with the current surge of COVID-19 in the country and in the city due to the presence of the Delta variant with higher transmissibility. Some of the responses of pre-service teachers are as follows:

> PT01: *Online practice teaching is the safest way most especially this time of pandemic in order to prevent the transmission of the corona virus.*

> PT05: *I prefer practice teaching through online because of today's current situation. It is better to stay and learn at home than risking our lives especially that almost all of us are not yet vaccinated.*

B. Perceived Challenges and Difficulties of Pre-Service Teachers on their Online Practice Teaching

Meanwhile, there were three major challenges and difficulties that pre-service teachers perceived to experience in their online teaching practicum. These include the following: (1) Internet Connection-Related Concerns, (2) Non-Availment of Available Learning References in Teaching, and (3) Student Engagement Concerns.

1. Internet Connection-Related Concerns

Many of the pre-service teachers expressed concern about the conduct of their online teaching practicum that it may affect the quality of their teaching due to internet connection issues and problems. Some of the responses of the respondents are as follows:

> PT14: *Online teaching practicum will be challenging. The problem about lack of technology to be used and unstable internet should always be considered.*
>
> PT19: *Technical issue is one of the major challenges that we need to be considered in our upcoming practice teaching. Especially here in our province that internet connection is really an issue. This will really affect the quality of our practicum.*

2. Non-Availment of Available Learning References in Teaching

Another issue pre-service teachers raised on their upcoming online teaching practicum is the availability of learning resources to be used in their teaching. Some of them stressed the need for enough learning materials to supplement their teaching besides the required textbooks. Some of their responses are as follows:

> PT26: *One of the issues that we need to be considered in our practicum is the availability of learning materials that we need for our OJT. Since we can't go to the library, then we really need to search for available learning resources in the internet.*
>
> PT19: *I can sense that online practice teaching would be challenging especially for those who do not have complete learning resources and materials.*

3. Student Engagement Concerns

Finally, a certain issue of pre-service teachers on their online teaching practicum is on the aspect of their learners, which is on how they will engage their learners in online classes and, at the same time, increase their motivation in learning. Some of their responses are as follows:

> PT30: *Online practice teaching is quite challenging because there may be problems to occur during online class such as assessing the engagement of students whenever I teach. In addition, there is a way also for me to come up with ways to ensure that motivation of students to learn is still there.*
>
> PT42: *My concern is on the learners because online practice teaching will be difficult for me to ensure whether they are listening to me or not. In addition, engagement an motivation to learn might also be a problem.*

IV. DISCUSSION

Pre-Service Teachers' Preparedness on Online Practice Teaching

This study was conducted to assess the preparedness of pre-service teachers in their online practice teaching. Due to the restrictions brought about by the COVID-19 pandemic, schools and universities shifted to flexible learning modalities to cater to the needs of the learners. For the case of practice teaching for pre-service teachers, they also need to adapt to the changes and demands of the educational system, hence engaging in online practice teaching. Online learning can present a new set of challenges for pre-service teachers as they attempt to implement classroom practices in an online environment. Teachers-in-training must possess specialized equipment, technical skills, self-regulated learning strategies, and an understanding of the learning community (Mercado, 2020). The results of the study revealed that pre-service teachers are prepared in their online practice teaching. Specifically, pre-service teachers are prepared along understanding the learner, creating an effective learning environment, designing the teaching process, and technopedagogical competence. This implies that pre-service teachers are generally prepared for online classroom work and teaching. In addition, they are prepared to join the teaching force since they are already equipped with the knowledge and competency required for teaching in an online learning environment. More importantly, they are also equipped to face the challenges brought about by the new learning modality. The findings confirm the results of recent studies claiming most of the pre-service teachers enrolled in private institutions and universities are prepared for a new modality in practice teaching since most of the private schools were already implementing online learning even prior pandemic (Hojeij et al., 2021; Cancino, Duran & Solorza, 2020; Hofer-Luck, Delere & Vegel, 2020).

Specifically, pre-service teachers are prepared to teach in an online learning environment because they believe that they can understand their learners despite the new learning modality. This could mean that pre-service teachers, despite being engaged in online learning, are already knowledgeable with the subject matter and also know the required knowledge and skills for a certain lesson. This just shows that Louisian pre-service teachers already possess the required cognitive competency for their practice teaching since they are already equipped with the necessary knowledge

on the different concepts related to their field of specialization. Teaching is, after all, a process of interaction between teacher, student, and subject matter. Effective teaching requires teachers to possess detailed subject matter knowledge intertwined with knowledge of pedagogy, curriculum, student behavior, learning objectives, and outcomes (Kutluca, 2021). Furthermore, pre-service teachers must understand how concepts connect across disciplines and everyday life. Content knowledge about the teaching process is critical, as is knowledge about the most effective methods of representing and communicating content, as well as how students best learn specific concepts and topics in a subject (Dadvand & Behzadpoor, 2020). More importantly, mastery of subject matter equips the student teacher with critical thinking skills and the ability to assist their students in acquiring the necessary knowledge, skills, attitudes, and values (Itmeizeh & Hassan, 2020). Meanwhile, it is important to note that pre-service teachers believe they can understand how much their students have learned. This could mean that even in online learning, pre-service teachers can come up with ways and strategies to ensure that their students will learn certain concepts. More importantly, pre-service teachers are knowledgeable about the needs of their students regardless of their learning styles and their multiple intelligences. In the 21st-century educational parlance, students have diverse learning styles and multiple intelligences that teachers and pre-service teachers should take into consideration. It is critical for pre-service teachers to understand their students' learning styles in order to incorporate best practices into daily activities, curriculum, and assessments (Costa et al., 2020; Goodsett, 2020; Nguyen, Liwan & Mai, 2020; Sanaeifar & Mirshojaee, 2020). Engaging students in the learning process has been shown to improve their attention and focus, motivate them to practice higher-level critical thinking skills, and facilitate meaningful learning experiences (Chang & Yeh, 2021; Evans & Waring, 2020). In addition, pre-service teachers who understand how their students learn can guide and motivate them to excel in their studies and understand their students as unique individuals can assist them in navigating their frequently perplexing and anxious lives. In online learning, pre-service teachers must understand the nature of their learners.

Meanwhile, pre-service teachers are also prepared in their online teaching practicum since they can create an effective learning environment. This would mean that pre-service teachers are equipped with the required skills and competency in designing an online classroom that is effective and where maximum learning can take place. Specifically, pre-service teachers can understand how students' family and cultural backgrounds affect their learning and identify and address special learning needs and difficulties. In an online learning environment, pre-service teachers must be able to holistically identify their students' special needs. In the present study, it was revealed that they have a mechanism to identify the needs of their students regardless of their cultural, familial, and even socio-economic status. The finding asserts the claims of previous researchers that teachers and pre-service teachers should encourage students to conduct research and learn about their own ethnic and cultural backgrounds when appropriate. This enables them to gain a better understanding of their own culture, as well as the distinctions and nuances between themselves and their peers (Biberman-Shalev, 2021; Lawless Frank & Bogard, 2021; Kim & Choi, 2020; Oryan & Ravid, 2019). Furthermore, it is critical to understand cultural assumptions from both the teachers' and students' perspectives. By studying and understanding different cultures, a teacher can gain a better understanding of why a child reacts and interacts in a particular way within a school structure (Smits & Janssenswillen, 2020). Furthermore, the results are also geared toward the promotion of empathy among pre-service teachers. In an online learning classroom, not all students have access to an internet connection; hence, the need to understand the current situations of students among pre-service teachers is also important to ensure harmonious relationships and interaction between pre-service teachers and students. Moreover, pre-service teachers can also engage their students in doing cooperative works in an online learning environment. Cooperative learning is a structured and organized method of utilizing small groups to maximize student learning and interdependence. Students are engaged and take an active role in their education. Students acquire more knowledge and retain it for a longer period of time, and students develop their ability to collaborate (Loh & Ang, 2020). Furthermore, there is sufficient evidence that collaborative learning is equally effective online, which is critical given the need for more flexible delivery models to meet the needs of a more diverse student body in the digital age (Tadesse et al., 2021; Neuwirth et al., 2020; Rapanta et al., 2020). In addition, this can also be realized by using available online collaboration tools. Online student collaboration tools facilitate interaction and self-discovery as students collaborate with others on projects outside of the classroom. Collaboration among students is critical for developing social skills and exploring areas of interest (Latip-Panggaga, 2021). More importantly, pre-service teachers are prepared in choosing learning strategies for different instructional purposes to meet different students' needs. Through the use of instructional strategies, they enable students to make meaningful connections between classroom concepts and real-world situations. They provide an opportunity for students to demonstrate their knowledge and make necessary course corrections on their own. As such, when a teacher provides individually prescribed instruction in an online environment, it significantly aids the comprehension and retention of educational concepts for a large number of learners. And finally, pre-service teachers can plan instruction by using knowledge of learning subject matter, curriculum, and student development.

Furthermore, along designing the teaching course, it was revealed that the pre-service teachers are prepared in their online teaching practicum. It was revealed in the study that they can develop a classroom environment that promotes

social development and group responsibility. A well-designed online course frequently develops into a social learning environment, allowing for the development of a vibrant learning community. A good online course will keep students engaged and challenged. It solicits participation from students, motivates them to contribute, and piques their interest and attention (Bakhhanova et al., 2020). In addition, they can use effective verbal and non-verbal communication strategies to guide student learning and behavior in an online environment. In online learning, pre-service teachers can direct students' attention toward greater comprehension, motivate them, and even motivate bored students through verbal and non-verbal language. Additionally, the use of emoticons (punctuation symbols that generate images, such as :-) to represent a smiley face), emojis (actual images—for example, a person covering their eyes to indicate frustration), and gifs (short clips that convey a particular emotion or sentiment) are examples of nonverbal communication. Furthermore, another important pre-service teacher's preparation for online practice teaching is the art of questioning in an online learning environment. Effective questioning does not require pre-service teachers to recreate their instruction during online learning. Rather than that, they build on the characteristics of effective questioning, structure their questions around models of higher-order thinking, use questioning stems and cubing to scaffold and empower students, and teach students to work at a higher level with questions (Goodsett, 2020). As a result, the questioning that underpins the teaching task promotes recall, deepens the learning process and comprehension, stimulates imagination and problem-solving, satisfies the sense of curiosity, and boosts creativity (Chan et al., 2020). In addition, pre-service teachers can help students learn how to monitor and assess their own learning and provide descriptive feedback to assist learners improve their academic performance. This could mean that pre-service teachers are capable of doing varied assessment techniques that are responsive to the needs of the learners and the current educational set-up. Assessment is critical to the online classroom's success. It informs students about their progress in a course, identifies individual strengths and weaknesses, and ultimately serves as a metric for determining whether students meet the course's learning objectives (Landrum et al., 2021; Echols et al., 2021).

Finally, pre-service teachers are prepared in their online teaching practicum along technopedagogical competence. This implies that pre-service teachers are already equipped with the required technological competence to ensure effective pedagogical practices and techniques necessary in their online practice teaching. Technological competence enables online education and access to current information. Because each student interprets this information differently, technology enables additional research into more difficult-to-learn subjects (Lee & Nuatomue, 2021). Specifically, they can evaluate and monitor student success and provide relevant learning content from reliable websites and other electronic resources. In online learning, monitoring and evaluation play a very important role in the teaching and learning process. Monitoring and evaluation are processes that enhance the teaching and learning process to achieve desired outcomes. Monitoring provides detailed information on assessed activities and areas for improvement. Furthermore, pre-service teachers are also equipped with information literacy skills that enable them to help their students provide credible and relevant electronic and online references and deal with issues on plagiarism and academic integrity. The findings confirm the results of recent studies stressing the need for information literacy as an important online learning competency needed for educators such as pre-service teachers (Albrahim, 2020; Goodsett, 2020; Falloon, 2020; Supriyanti et al., 2020). And finally, they can use online instructional strategies that promote active student learning and can integrate technology for quality teaching and learning. The use of technology have the potential to improve the quality of higher education by increasing students' motivation, interest, and engagement, facilitating skill acquisition, and enhancing teacher training, all of which will ultimately improve communication and information exchange (Givens et al., 2020).

Significant Difference on the Pre-Service Teachers' Preparedness on Online Practice Teaching when grouped according to Profile Variables

It was also revealed from the results of this current study that pre-service teachers who have conducive learning spaces are more prepared in their online practice teaching than those with learning spaces but with minimal source and distraction and those with learning spaces that are not conducive. According to research, learning environments are critical to the teaching and learning process (Chan et al., 2021; Fitzgerald et al., 2021). Pre-service teachers who teach in a positive learning environment have been shown to be more motivated and engaged, which may result in their students achieving a higher overall level of learning ability (Chan et al., 2021). In addition, the findings coincide with the results of recent studies stressing the effectiveness of a conducive learning environment in the successful conduct of online practice teaching among pre-service teachers (Ngoepe, 2021; Villena-Agreda, 2021; Kenneth, 2020).

Meanwhile, pre-service teachers who are very familiar with the university's learning management system (LMS) are more prepared in their online teaching practicum than those who are familiar with the LMS. In this kind of educational set-up, using LMS is vital in the successful implementation of online learning since it helps teachers deliver materials to students, administer tests and other assignments, monitor student progress, and maintain records (Buabeng-Andoh & Baah, 2020). As the main educational platform for most schools in the current time, LMS is a cutting-edge tool that educational institutions cannot afford to lose in the modern era. They assist in the development, adoption, administration, distribution, and management of all activities associated with e-learning training or can serve as a

supplement to classroom instruction. In this sense, pre-service teachers who are very familiar with the use of LMS can easily facilitate learning discussions with their online classes since most of the activities and learning engagements are found in the university's LMS.

Finally, the results also show that pre-service teachers who are very familiar with different online learning platforms such as Zoom, Google Meet, Facebook Messenger, and Microsoft Teams, among others, are more prepared for their online practice teaching than those who are familiar with these learning platforms. The use of these online learning platforms is vital in online learning since these serve as the virtual classrooms. As pre-service teachers, these online learning platforms help keep their classes going in a flexible learning environment. A synchronous online class session, where everyone joins in a certain online learning platform at a scheduled time, is one way to create engagement when students are remote. These also support other teaching and learning scenarios. These can be used on laptops, desktops, tablets, smartphones, and even desk phones, giving students many ways to access the class session (Li et al., 2021).

Pre-Service Teacher's Perceptions on their Online Practice Teaching

A. Perceived Benefits of Online Practice Teaching

Results of the study revealed four major benefits of the implementation of online practice teaching as perceived by the pre-service teachers: Application of Knowledge, Skills, and Attitudes in an Online Classroom, Accessibility of Pre-Service Teachers to Diverse Learners, Enhancement of Creativity and Innovativeness, and Safe and Viable Alternative Mode of Practicum to Ensure Physical Health and Wellness. Pre-service teachers stressed that the online practice teaching offers a good avenue for them to apply the knowledge, skills, and attitudes that they have learned from the three years of their academic formation. This could show that pre-service teachers perceived that the online practice teaching is as effective and vital as that of the traditional teaching practicum. Just like the way practice teaching was done prior to the COVID-19 pandemic, online practice teaching will also provide pre-service teachers classroom experience prior to taking on the full range of responsibilities required for student teaching. Zhou et al. (2020) stressed that just the like the face-to-face way of doing teaching practicum, online practice teaching will help pre-service teachers to advance their skills in curriculum implementation, policy, education systems, and leadership through online training programs, both independently and with the support of their institutions. In addition, Ping et al. (2020) also mentioned that the online practice teaching for pre-service teachers is still intended to serve as a bridge between the classroom and the practice environment into which students will soon be placed. Students are expected to develop skills in assessing and treating patients based on the knowledge gained during their education. Furthermore, almost all teacher education institutions shifted to online practice teaching for the OJT program of pre-service teachers (Cai & Wang, 2020; Kim, 2020; Mehta & Aguilera, 2020; Yao et al., 2020).

Meanwhile, another significant benefit of online practice teaching is the accessibility of pre-service teachers to diverse learners. In online learning, it is important that teachers understand the needs of their learners in order to develop and implement effective pedagogy. With this kind of educational set-up, pre-service teachers have more ways to connect and interact with their students through the use of technology and social media. With the nature of students being inclined with the use of technology, pre-service teachers can have an easy access to them, hence will be able to address their needs and issues with regard to academics. In addition, Noor et al. (2020) claimed that the objective of online communication is identical to that of face-to-face communication – to establish connections, to share information, and to be heard and understood.

Furthermore, the online practice teaching will also enhance pre-service teachers' creativity and innovation skills. Creativity and innovation are among the major skills and competencies that teachers need in the 21st-century education landscape, particularly when considering how both abilities can help individuals reach their full potential by eliciting positive characteristics. In online learning, pre-service teachers should engage in activities and strategies that boost student participation and motivation in learning. Hence, the need for the utilization of creativity and innovation.

Finally, pre-service teachers stressed that online practice teaching is the safest and most viable alternative mode of practicum to ensure physical health and wellness. This could be attributed to the increasing number of COVID-19 cases brought about by the new strains of the virus that are more transmissible and dangerous. In addition, no basic education schools are implementing face-to-face learning modality. The result of this study also affirms the data in which most of the COVID-19 cases today happened in workplace settings (Department of Health, 2021).

B. Perceived Challenges and Difficulties of Pre-Service Teachers in their Online Practice Teaching

Three major issues were revealed in the responses of the pre-service teachers on their online practice teaching, which are as follows: internet connection-related concerns, non-availment of available learning references in teaching, and student engagement concerns. The most common issue among pre-service teachers is internet connection-related concerns. Many of them clamor for the slow internet connection in their places, which may affect the teaching and learning process. The Internet offers tremendous opportunities for educators to improve the quality of their instruction. New modes of teaching and learning, increased access to a much

broader range of information and resources, and new digital skills can all transform lives, assisting in the achievement of education for all and other Sustainable Development Goals. However, slow internet connection has been one of the major problems in online learning among developing countries such as the Philippines, especially in rural and remote areas. Online learning reveals a digital divide among Filipino students in this context (Santos, 2020). This current state of online learning is very likely to exacerbate existing inequalities and result in barriers to online education. Consistent with previous research, pre-service teachers in this study identified unstable internet connectivity as one of the primary barriers to online learning practice (Estira, 2020; Fabito et al., 2020; Pastor, 2020). A deficient network is frequently a major issue for developing countries with inadequate telecommunications and information technology systems. While there are numerous existing internet bundles in the country, they fluctuate in terms of speed and stability.

Another issue that students repeatedly mention is the inadequacy of learning resources. The majority of students rely solely on their phones and require additional resources. The findings of previous studies corroborate the other finding of this study, which is that pre-service teachers face numerous difficulties due to a lack of adequate learning resources (Adnan & Anwar, 2020; Ferri et al., 2020; Putri et al., 2020). This could be explained by the fact that while many instructors have implemented online classes, the majority of them continue to use learning content designed for in-campus instruction. For instance, students are provided with syllabi and modules; however, certain instructions in these materials are ambiguous and unattainable in an online learning environment. This could also be a result of teachers' lack of experience with remote learning, which makes it difficult for them to create appropriate supplementary materials designed specifically for online teaching platforms. Thus, this might also affect the quality of teaching and learning to be provided by pre-service teachers.

Finally, student engagement in online learning is also seen as one of the pressing issues that pre-service teachers will be experiencing during their online teaching practicum. Online learning is more difficult for a variety of reasons, from missing critical components of education to being unable to access it due to the internet; online learning has been a difficult adjustment. However, one of the major issues concerning online learning is ensuring that learners are engaged and motivated in learning. In online courses, teaching support is critical, with teacher engagement and connection positively affecting online student retention. Hence, there is a need for pre-service teachers to come up with more engaging strategies to ensure that student participation and learning will take place. Student engagement in the learning process is a critical characteristic that refers to the time students spend in the classroom learning. In contrast to the amount of time the teacher spends teaching a subject, this is when students are actively engaged in learning the material. Effective online teachers provide timely, proactive, embedded support that establishes their personal presence and engages students actively through synchronous and asynchronous methods. Researchers stressed the need for pre-service teachers to ensure that student engagement takes place in an online setting because it improves student satisfaction, increases motivation to learn, alleviates feelings of isolation, and improves student performance in online courses (Adedoyin & Soykan, 2020; Adnan & Anwar, 2020; Pastor, 2020).

V. CONCLUSION AND RECOMMENDATIONS

The study concludes that pre-service teachers are ready to engage in online teaching practicum since they are equipped with the necessary knowledge and skills in teaching in an online learning environment. In addition, pre-service teachers viewed their online teaching practicum as the safest and most viable mode of doing an internship program in new normal education since it still provides good opportunities and avenues for them to apply the different knowledge and skills they have learned in their academic formation. Furthermore, their preparedness in their online practice teaching varies in terms of their familiarization with the university's learning management system, the different online learning platforms, and even the presence of a conducive learning space for their practicum. However, online teaching practicum also posits some issues and difficulties that may affect the successful implementation of the teaching and learning process.

The Teacher Education Department may continue providing orientations and training to pre-service teachers on the conduct of online learning in the new normal to ensure that they fully develop their skills and competencies in online teaching, focusing on instructional strategies, pedagogy, online classroom management, student discipline, learning motivation, and student engagement. In addition, the Teacher Education Department needs to conduct regular orientations among pre-service teachers on the use of different university resources, such as library orientation, Learning Management System (LMS) training, and even academic policy-related orientation. Furthermore, an evaluation of the effectiveness of the online teaching practicum of pre-service teachers must be conducted to identify its strengths and weaknesses to address emerging issues and concerns among pre-service teachers, cooperating teachers, supervising instructors, and learners.

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