



**UNIVERSITY OF THE PHILIPPINES  
OPEN UNIVERSITY**

**MASTER OF DISTANCE EDUCATION**

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MDE 2020-30987

**LIVED EXPERIENCES OF PRE-SERVICE TEACHERS IN ONLINE PRACTICE  
TEACHING: AN EXPLORATION OF THE CONNECTIVIST PEDAGOGIES**

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9 September, 2024

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This paper prepared by **DANIEL P. ONG JR.** with the title: “**LIVED EXPERIENCES OF PRE-SERVICE TEACHERS IN ONLINE PRACTICE TEACHING: AN EXPLORATION OF THE CONNECTIVIST PEDAGOGIES**” is hereby accepted by the Faculty of Education, U.P. Open University, in partial fulfillment of the requirements for the Master of Distance Education.

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## **Biographical sketch**

The author, Daniel P. Ong Jr., is an instructor at the College of Education, Don Mariano Marcos Memorial State University – Mid La Union Campus. He holds a Bachelor of Elementary Education (BEEd) with a Certificate in Early Childhood Education and a Master of Arts in Science Education (MASE). He is the teaching internship coordinator for the undergraduate Elementary and Early Childhood Education programs. Additionally, he is an internal quality management auditor for the campus' Quality Management Office.

Practicing in the remote academic field and strengthening his distance learning knowledge and teaching skills made him decide to take the Masters in Distance Education program at the University of the Philippines Open University.

He is an active researcher who has led a local government project assessing Early Childhood Care and Development (ECCD) programs. In addition to his ECCD work, his research and extension work focuses on enhancing the technology-pedagogy skills of DepEd teachers through the development of virtual interactive learning materials.

Beyond his academic roles, he is a dedicated advocate for education, sharing his expertise and inspiring others with his transformative journey through his vlogs and video content.

## Acknowledgment

This academic masterpiece was accomplished with the support and involvement of those who may not all be recognized. Nevertheless, I would like to express my most profound gratitude, specifically to the following:

I would like to express my sincerest gratitude and respect to my thesis adviser, Prof. Juliet Aleta R. Villanueva, Ph.D. I have appreciated your diligent guidance since the beginning. Your mentorship has been instrumental in my academic development and an inspiration to me; moreover, your support has been unwavering.

I deeply appreciate Prof. Juvy Lizette M. Gervacio, Ph.D., Prof. Maria Carmela P. Vertido, Prof. Ana Katrina T. Marcial, and Prof. Jean A. Saludadez, Ph.D., for compassionately imparting their knowledge and skills in qualitative research. Moreover, I would like to extend my appreciation to my UPOU professors. Their expertise and assistance have been essential to enabling the completion of this research; in addition, their guidance and teaching have been invaluable.

Heartfelt gratitude is also expressed to all the participants for generously dedicating their time to collaborating in the FGDs and interviews and for willingly accepting the challenging tasks; likewise, their contributions are deeply appreciated. I want to give special thanks to my friends and colleagues, Mr. Arturo C. Flores, Dr. Oscar O. Ancheta, my Study Buddies in UPOU, and all who have been part of this endeavor in one way or another.

Nobody has been more important to me in pursuing this study than my family. I thank my father, Daniel S. Ong Sr., and my sister, Mary Ann P. Ong, for always supporting me. Their guidance and cooperation have been my most significant source of support, especially with my mom, Josefina P. Ong, who supported me unwaveringly

until her passing. I would like to express my heartfelt thanks to my family for their unconditional love and support. Completing this challenging endeavor would not have been possible without the steadfast support of everyone who inspired me to persevere.

Above all, I thank the Eternal Creator for His blessing of faith, strength, and positivity in finishing this study. I find solace and motivation in having faith that everything unfolds in His accordance; consequently, I am eternally grateful.

## **Dedication**

I dedicate this thesis to the selfless young men and women who have been called to the noble profession of teaching and whose hearts and souls inspire the minds of tomorrow.

As well as to my beloved mom, whose unconditional love and encouragement carried me through every challenge. Your memory will forever be my guiding light.

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## **ABSTRACT**

The connectivist pedagogy, based on connectivist learning theory, is a widely used approach in open and distance e-learning that enables learners to gather information and exchange knowledge through various online tools and platforms. One of the benefits of technological advancement is the use of online practice teaching programs in higher education institutions. While these programs offer new opportunities, they also present unique challenges. Despite the extensive research in online teaching practices, uncertainty surrounding the application of connective principles and networked learning characteristics has persisted. This area of study remained largely unexplored, necessitating further investigation. To address this research gap, it was deemed essential to comprehend how pre-service teachers (PTs) acquire knowledge in the context of emerging technologies.

A phenomenological-hermeneutic approach was utilized to investigate the lived experiences of twelve (12) PTs who had completed online practice teaching within connectivist pedagogies. The study was conducted at a state university in the Philippines, where the integrated networked learning approach was implemented. Focus group discussions with a reflective framework, interviews conducted using a phenomenological interview framework, and journal reflections served as the primary data collection methods. The collected data were analyzed through thematic analysis.

Findings revealed a mesh type of network in which PTs engaged in a cyclical process: seeking information and understanding their students' needs, finding essential tools and resources, collaborating in the network, enhancing teaching approaches, and reflecting. This process strengthened PTs Professional Learning Networks (PLNs).

However, challenges such as communication barriers, maintaining student engagement, technical difficulties, and unspoken conflicts with mentors and peers emerged. PTs employed coping strategies to address these challenges, including improved communication, adapting diverse instructional methods, and reflective practice.

Critical areas for program improvement were identified, including the selection process, pre-service training, technical support, mentoring, infrastructure, and resource allocation. Building on these findings, a program model for local and international practice was proposed to optimize online practice experiences.

*Keywords: connectivism, networked learning, online practice teaching, phenomenological approach, pre-service teachers*

# Chapter I

## INTRODUCTION

### 1.1. Background of the Study

Practice teaching programs have undergone substantial transformation driven by technological progress and changing educational environments. Incorporating digital tools and platforms has broadened the possibilities for pre-service teachers (PTs) to acquire hands-on experience while equipping them with the skills to utilize technology proficiently in their future classrooms.

In today's digital era, teacher education programs increasingly embrace online learning to equip PTs with the skills to thrive in virtual classrooms (Tarchi, 2022). The importance of creativity in building networks and strengthening connections in the learning process is emphasized by connectivist pedagogies grounded on the connectivist learning theory. According to this theory, internet technologies have opened new avenues for exploring and exchanging knowledge globally and among themselves (Bates, 2015). One of the critical aspects of connectivism is that most of the learning may occur through peer networks, primarily online (Herlo, 2017). This encourages students to actively lead their own learning, seek out knowledge, and interact with other students who convey their interests and goals (Sobko et al., 2020). This is evident in practice teaching, where higher education institutions (HEIs) offer practicum courses in teacher education programs, and their component varies depending on the institutional policies.

For student teachers, practice teaching is a valuable tool that provides theoretical and pedagogical knowledge and practical opportunities to apply these concepts in real-world settings (Hill, 2021). This practical component allows

knowledge to be applied in a real-world setting, gaining valuable teacher-learning outcomes. A crucial aspect of the program involves observing PTs' demonstration teachings and providing feedback from cooperating teachers, supervising teachers, and other trainers (Mutluoğlu & Balaman, 2023). National regulations, such as RA No. 7722, outline the requirement for nurturing skilled teachers. HEIs offer teacher education programs to train aspiring educators in essential fields, ensuring they can effectively promote quality education (CHED, 2017).

Traditionally, practice teaching experiences were gained through face-to-face placements at local schools through internships (Ullah, 2016). These practicum experiences were conducted following guidelines established by the Department of Education (DepEd) (Rudio, 2020), often taking place outside the university at public or private elementary and high schools or within the university's basic education departments (CHED, 2017). Student interns labeled as pre-service teachers (PTs) undergo off-campus institutional activities as part of the duly approved curriculum and student internship guidelines and activities set by the HEIs and noted by the Commission on Higher Education (CHED) regional offices. Face-to-face activities include general orientation to students, consultations, briefings, and announcements to stakeholders. Learning materials such as learning journals are also used for students, and these are monitored and evaluated by the cooperating teachers and supervising teacher in charge of the practice teaching (CHED, 2017). Factors such as classroom infrastructure, teacher-student interactions, and community engagement influenced the effectiveness of these traditional methods (Ullah, 2016). Additionally, cultural norms and local expectations played a role in how these methods were delivered and received within the community (Fitriyah, 2023).

Recent occurrences, like the COVID-19 pandemic, have accelerated the shift toward online teaching methods (Hill, 2021). While physical classrooms were once the norm, universities now establish international networks and partnerships to give students a competitive edge and a global perspective (Fitriyah, 2023). Initiatives like the Internationalization Program on Practice Teaching (IPP), leveraging virtual internationalization, offer student teachers the opportunity to acquire experience in an international setting through virtual exchange programs (Marinoni & Cardona, 2024; Taghizadeh & Amirkhani, 2022).

These virtual internationalizations allow for global interaction, and workshops on intercultural communication and teaching strategies are provided (Mantel et al., 2022), while cultural exchange activities to foster appreciation for diverse cultures are also offered (Cabiladas, 2020). The global survey on Higher Education Internationalization reveals that the Asia and Pacific region has made significant progress in integrating internationalization with sustainable development. This region has implemented policies and strategies that leverage internationalization to promote sustainable development (Mantel et al., 2022). Thailand's Ministry of Education is clearly making attempts to modernize and overhaul its English system. Given its critical importance, the Ministry has firmly decided to employ teachers who are native speakers. Foreign teachers seek employment opportunities, encouraging universities with virtual internationalization programs to enhance their curriculum offers (Cabiladas, 2020). Flexibility, accessibility for remote learners, and the ability to incorporate multimedia resources are offered by online pre-service teaching. However, challenges such as the lack of physical interaction, potential technological hurdles, and the need for student self-discipline and motivation are also presented (Antallan et al., 2022).

Despite these challenges, a more diverse and adaptable learning environment for future educators is offered by blended learning, which combines online and traditional teaching methods, despite its challenges (Mutluoğlu & Balaman, 2023; Yorkovsky & Levenberg, 2022). This approach offers aspiring teachers a multitude of benefits. Moreover, global perspectives and new skill sets are developed, including working with technology, designing interactive lessons, and engaging diverse learners (Taghizadeh & Amirkhani, 2022). Their horizons are broadened, and a more inclusive approach is encouraged by exposure to different cultures and teaching methodologies (Fitriyah, 2023).

Furthermore, valuable practical experience, feedback, and the chance to learn from experienced educators are suggested to be offered even in a foreign environment (Tuma et al., 2023). These are particularly beneficial for aspiring teachers of specific subjects (Yorkovsky & Levenberg, 2022). These experiences and the challenges and collaborations encountered while working abroad contribute to teacher satisfaction (Deguma et al., 2022; Villanueva, 2021).

These learning experiences exemplify networked learning, a concept built on connectivism theory (AlDahdouh et al., 2015; Corbett & Spinello, 2020). Networked learning utilizes technology to connect educators and students across geographical and temporal boundaries, fostering a knowledge exchange network (Bonderup Dohn et al., 2018; Networked Learning Editorial Collective, 2021). This approach has gained traction in education worldwide (Hamid et al., 2015; Smidt et al., 2017), and technological advancements have transformed networked learning by facilitating connections between teachers and students from diverse regions and time zones (Brown & Poortman, 2018; Fitriyah, 2023).

One key benefit of networked learning is online practice teaching, which allows student teachers to gain experience with a global population (Cabiladas, 2020; Fitriyah, 2023; Hill, 2021; Jones et al., 2017). This approach also prepares them to teach a more diverse student body and fosters a deeper understanding of various cultures and learning styles (El-Sabagh, 2021; Siemens et al., 2020; Taghizadeh & Amirkhani, 2022).

While networked learning offers significant advantages, online teaching itself poses unique challenges. Simonson et al. (2019) highlighted the flexibility of online activities but emphasized the need for specific skills and adaptability to navigate different technological platforms. According to Garrison (2017), online learners need to be receptive to diverse instructional designs and enthusiastic about expanding their teaching techniques to meet the needs of online learners. This openness is crucial for overcoming online teaching challenges and capitalizing on networked learning opportunities.

## **1.2. Problem Statement**

Understanding how practicing teachers learn and share knowledge with others, mainly through online teaching and learning, is a crucial area of research in modern education (AIDahdouh et al., 2015; Eynon & Malmberg, 2020). Online practice teaching is crucial for PTs to acclimatize to the evolving educational landscape and implement pedagogical innovations in future online classrooms (Tuma et al., 2023). Improving online practice teaching can be an effective solution to prepare student teachers for this challenge. While there are numerous studies on digital learning (Glassner & Back, 2020), there has been few research on how practicing teachers learn through online educational technologies. Despite the extensive research in

online teaching practices, more certainty still exists regarding applying connectivism principles and worthwhile networked learning characteristics. This area of study remains to be explored mainly and requires further investigation. To address this research gap, it is crucial to understand how these groups learn in the context of new technology.

Focusing on the local setting, a university in the regional area of the Philippines is among the many national and international universities that provide networked learning through its IPP. This program strives to become globally competitive as it prioritizes providing quality education and ensuring client satisfaction by improving its innovative practices in teacher education. Examining recent and concrete experiences of practicum teachers in this context will determine the place of networked learning for innovative teacher education programs within the HEIs.

### **1.3. Research Questions**

This study investigated PTs' learning experiences and processes undertaking online practice teaching. It aimed to substantiate/affirm the connectivism learning theory, which suggests that students' success in the digital age depends on their ability to interact socially, exchange up-to-date knowledge, and seek information through digital learning tools/platforms (Downes, 2019; Siemens et al., 2020). Additionally, the study described the arising practices and ascertained the use of networked learning strategies to gain insight into their practice teaching experiences. It also sought to recommend ways to improve the instructional delivery of the IPP for practicum teachers to enhance their learning experiences further.

For its central question, this study asked:

What were the lived experiences of PTs in online practice teaching in terms of connectivist pedagogies?

Specifically, it sought to answer these sub-questions:

1. How did pre-service teachers utilize the learning tools and resources to seek information, exchange knowledge, and engage in social interaction?
2. How did the pre-service teachers cope with the challenges they encountered while teaching remotely?
3. What learnings could be drawn from pre-service teachers' reflections to leverage connectivist pedagogy?

#### **1.4. Significance of the study**

One of the most important aspects of any educational program is the quality of instruction provided to students. This is particularly crucial in practicum or internship programs, where student teachers are being prepared to enter the workforce and need to expand the skills and knowledge fundamental to succeed in their chosen careers. This study investigated the lived experiences of PTs to understand how connectivist pedagogies, a promising approach to networked learning, functioned within the context of online practice teaching.

This exploration of connectivist pedagogies holds significant advantages for various stakeholders in educational institutions. Distance education learners, teachers, and trainers can all benefit from its implementation. Given the increasing prevalence of online learning and the need for high-quality education regardless of delivery mode, examining this method aligns with current educational trends set forth by international universities and the CHED in the Philippines. The findings of this study

can inform Higher Education Institutions (HEIs) in developing policies and best practices to optimize online practice teaching experiences.

Furthermore, the study aimed to identify challenges and barriers students and teachers face in online practice teaching. This knowledge can be employed to design targeted interventions, ultimately improving all participants' overall experience and outcomes. This type of research is essential considering the rise of online learning and the need to ensure high-quality education for students regardless of delivery format.

Connectivist pedagogies have garnered significant research interest within open and distance learning. This study contributes to the existing knowledge on networked learning, potentially informing future teaching practices and policies. Ultimately, such advancements can improve student learning outcomes across diverse learning contexts.

In the specific context of the Philippines, online and distance learning offer valuable opportunities for educational access and skill development within practice teaching. This research can inform educators how to ensure these opportunities are as effective, personalized, and engaging as possible for future teachers. CHED and HEIs can also use the findings to develop guidelines and support systems for successful online practice teaching implementation.

### **1.5. Limitations of the Study**

This study explored the potential of networked learning, identifying key features and experiences to establish how learning tools or resources, coping and management strategies in relation to challenges, and insights from the participants' reflections can help inform online practice teaching programs. The study centered on

a specific online practice program provided by the IPP and its associated educational institutions in Thailand. This program is held on an annual schedule and offered in various lengths. Pre-service teachers from Bachelor of Elementary Education and Bachelor of Secondary Education Programs participate in this. Google Meet and Line were the platforms that they most frequently employed for learning activities, collaboration, and communication. Their commonly used platform was Google Meet and Line for communication, collaboration, and learning activities.

A phenomenology-hermeneutic approach was paramount in this study to fully understand the lived experiences of PTs involved in online practice teaching. While phenomenology primarily focused on comprehending the essential nature of individual experiences, hermeneutics, on the other hand, revolved around interpreting and constructing meaning. Consequently, this approach allowed for a deep exploration of participants' unique perspectives and how their experiences influence their understanding of online practice teaching. Moreover, by focusing on the descriptive and interpretive aspects of human experience (Kafle, 2013; Suddick et al., 2020), this methodology distinguishes itself from other qualitative approaches and enables a more thorough and nuanced understanding of the topic under study. However, although phenomenology provides valuable insights into individual experiences, the generalizability of these results to a broader population may be limited.

Triangulating data from the focus group discussions, semi-structured interviews, and journal documents would provide a more nuanced understanding of the participants' lived experiences. Through this methodology, the researcher could investigate specific answers to the research questions on how learning tools and resources, coping and management strategies with the challenges, and insights can inform practice teaching programs. The investigation would focus on the benefits,

interactions, and overall influence of online practice teaching on the participants' readiness and remote teaching experiences.

Furthermore, the findings of this study would contribute to the growing body of knowledge on online practice teaching and networked learning. Although the study is specific to the investigated online practice teaching program and the experiences of the twelve participating PTs, the insights and lived experiences of PTs teaching online to international students can contribute to future studies. This study encourages ongoing discussion on connectivism and its practice by identifying prospective topics for additional exploration, such as examining online interactions within the program. The findings of this study contribute to advancing the understanding of online practice teaching procedures.

## **Chapter II**

### **REVIEW OF RELATED LITERATURE**

This chapter provides an overview of research into the connectivist pedagogy. It delves into how it has been discussed in the research literature and, more importantly, as a teaching approach emphasizing the power of networks and connections in learning (Glassner & Back, 2020). It explores how connectivism has been applied to PT programs, particularly its implementation. The chapter also examines the successes and challenges faced by PTs using the connectivist teaching approach, emphasizing its potential to revolutionize teaching and learning.

#### **2.1. Connectivist Pedagogies**

At its core, connectivist pedagogy emphasizes the importance of making connections between different pieces of information, experiences, and individuals (Bates, 2015). It moves away from the traditional view of knowledge residing solely within individuals, instead recognizing it as distributed across networks of people and resources. In a classroom setting informed by connectivism, learning becomes an ongoing process that transcends classroom walls, with connections and knowledge exchange forming inside and outside the traditional environment.

Siemens (2005) projected that learning is not solely confined to the traditional classroom setting, nor is it exclusively an internal process. The findings indicate that connectivism highlights the importance of knowledge exchange within nodes of knowledge. These nodes may consist of individuals or organizations with expertise in specific fields, resulting in improved learning outcomes. Consequently, "learning" can be viewed as what students gain from the external network. Siemens (2006) identified

the fundamental principles of connectivist learning theory, including the notion that (1) knowledge and learning are derived from a variety of opinions, (2) connection from information sources, and (3) non-human tools for communication. In addition, connection-building and the ability to recognize these connections is (4) critical for (5) continuing learning and (6) a fundamental skill. The objective of connectivist learning activities is (7) currency or up-to-date knowledge. Moreover, decision-making is viewed as a (8) learning process where one must continually adapt to changing realities and information climates (Siemens, 2006). The learning process involves identifying and comprehending the "adaptive patterns" in a diverse array of rapidly changing, complex knowledge sources.

Downes (2012) emphasizes that learning occurs through every interaction within a network. Learners actively participate in tasks that contribute to their development as connected individuals. Understanding connectivism requires a specific approach to fostering successful networks - diverse, autonomous, open, and well-connected (Downes, 2012). These networks can be nurtured through teacher modeling and presentations, learner practice, and reflection.

The rise of technology grants access to vast amounts of knowledge through the internet and digital resources. The connectivist theory is a "network theory of knowledge and learning emphasizing the use of digital technology to enhance and extend interaction online" (Downes, 2019, p. 122). Furthermore, this emphasizes the importance of connecting different sources of information to create new knowledge. According to the connectivism theory, knowledge is a network of connections, and learning creates and navigates those connections (Siemens et al., 2020). Knowledge in any network arises from interactions, as described by Diaz and Hernandez de Frutos (2018). Recent technological advancements and cultural shifts have fueled the

growth of collaborative knowledge-building in online settings, challenging traditional learning and knowledge construction theories.

Moreover, Bates (2015) expounds that network knowledge is neither created nor maintained by any recognized organization. Organizations are prompted to actively connect with and engage in this dynamic domain of continuous information sharing to gain valuable insights. Rather than being static, knowledge is considered "emergent," meaning it arises from interactions. Wang (2018) briefly references "distributed cognitive theory" to illustrate the importance of deep interaction and group meaning construction in this process. Cabrero and Román (2018) supported this illustration that knowledge is an unpredictable, unstable, and constantly evolving entity that extends beyond a person's complete control. It can exist in external networks, such as digital devices and communities, that are perpetually changing. Also, Downes (2019) posits that connectivism promotes group participation and interaction, encouraging diverse perspectives and ideas when making decisions, solving problems, and comprehending information.

Advancements in technology and connectivity have empowered organizations to change their approach to knowledge building. Connectivism answers the age-old questions of where knowledge resides and how it is generated (Siemens et al., 2020). In today's networked society, connectivity has become critical to learning and knowledge sharing. This study seeks to understand the unique characteristics of the connectivist learning ecosystem in online practice teaching to illuminate the critical principles of connectivism as a learning theory present in the network of learning, drawing upon knowledge gained from the lived experiences of the PTs in online practice teaching. Likewise, connectivism has a unique feature of intermediation through technologies that amplify our knowledge management abilities. This

intermediation can range from technology as a simple facilitator to actively supporting and enriching the knowledge-building process (Siemens et al., 2020). Interactions can occur between people, people and machines, and even machines. Hence, this study seeks to draw a parallel between virtual connectivism and face-to-face interactionism in the real world. In further examining these areas, this study may be able to identify the essential tools needed to optimize online learning experiences among PTs. Investigating lived experiences can provide insights into what methods have been influential in the past and which tools have facilitated learning. Reflecting on these valuable experiences can guide individuals in selecting the most suitable online platforms, resources, and technologies to enhance their learning process.

## **2.2. Nature of Knowledge and its Pattern**

Connectivism views knowledge as actionable, as identified by Herlo (2017). Being connected to a network, he emphasized that "the nodes play their role in sharing the information which can be transformed, by understanding, in true knowledge" (Herlo, 2017, p. 332). The nodes he referred to are entities, such as groups of people, computers, ideas, and communities. According to him, this theory emphasizes the importance of establishing and nurturing supportive learning communities. Individuals share between nodes of knowledge by interacting in active dialogue, exchanging ideas, working together to create knowledge, and engaging in reflective practices (Downes, 2012). This aligns with social constructivism and connectivism, which hold that learning is a social and networked process and that knowledge is constructed through the interactions and relationships between individuals within networks (Herlo, 2017). Learners leverage the weak connections

between nodes to identify patterns and tap into the narrow universe of individual knowledge (or meaning-making) to expand their networks.

Downes (2012) introduced a three-fold understanding of connectivism, focusing on knowledge, learning, and community. He asserted that each of these elements must be depicted as a cycle. Knowledge influences learning, which informs the community, and the community, in turn, generates knowledge. The relationship between knowledge, community, and what we learn is reciprocal (Díaz & Hernandez de Frutos, 2018). Communities are built upon shared knowledge, while the community shapes what is learned—this results in a cyclical phenomenon where individuals interact and exchange experiences, creating structures and communication.

The study of Kultawanich et al. (2015) identified four essential steps in the connectivism learning model: aggregation, remixing, repurposing, and feed-forward. Learners must identify the main topic and relevant keywords, evaluate the quality of information, read and summarize important information, generate new information, publish their work, exchange opinions, and reflect on their thinking and feelings to develop their abilities. While AIDahdouh et al. (2015) provided a comprehensive description of connectivism, focusing on how students navigate learning networks and whether artificial neural networks support connectivism's assumptions, they suggest that relationships in the nodes connect knowledge in a network. The connections between these nodes represent relationships between the knowledge they contain. Like Herlo (2017), he highlighted the importance of external networks, such as interpersonal relationships or technological networks, in the classroom context. Learning was achieved through connections made within these networks, which may consist of peers, mentors, experts in the field, and even online communities.

In the connectivist pedagogical approach, each learner is regarded as an active player in their learning instead of being a passive recipient of information from a teacher. Downes (2019) discovered that several authors consider student autonomy a crucial aspect of connectivist learning models. They view 21st-century students as "do-it-yourself" learners, highlighting the significance of this principle. Furthermore, as El-Sabagh (2021) points out, this learning paradigm is particularly suited to the digital era. Digital natives and their distinct learning styles abound in today's educational institutions, stressing the significance of creating networks and establishing connections with others to facilitate learning. Cabrero and Román (2018) argue that learning is not limited to individuals but applies to communities. They emphasize that understanding the psychological makeup of a network of people, or even an entire community, is critical. Their strategy focuses on the creation of ever-evolving network ecologies.

The networked learning theory offers a unique perspective on education by focusing on the role of social networks and connections between individuals in shaping learning experiences. This theory posits that learning is not a solitary pursuit but a distributed and collaborative process. It occurs within social networks, where individuals are connected through human interactions such as relationships, information, and communication channels (Bonderup Dohn et al., 2018). According to Piao and Ma (2018), these networks should be built on "the principle of voluntariness and equal participation" (p. 977). Each member should take on an equal role and perform independently within that role. This collaborative approach challenges traditional leadership models that rely on singular authority, power, control, or hierarchy (Corbett & Spinello, 2020).

Networked learning thrives on different network topologies, each with unique effects on learning processes, as shown by Glassner and Back's (2020) study. These topologies include fully connected meshes, stars, buses, rings, trees, and mixed networks. However, an essential criticism of connectivism, as highlighted by Downes (2019) in his review, is that it does not explain how learners integrate information from these nodes into their existing knowledge structures (Zheng et al., 2018).

While connectivism acknowledges the role of digital technology in promoting networked learning (AIDahdouh et al., 2015), it must explain how learners fully connect with resources. AIDahdouh (2018) proposes a three-stage process to explain this connection, involving planning, cognitive processing, and evaluation.

As educators and academic institutions integrate digital technologies into teaching and practicum programs, understanding network formation and network ecologies in the context of practice teaching becomes crucial. These networks evolve with each generation, necessitating an in-depth review of teacher certification criteria, quality control operations, and evaluations.

Further research on teacher education programs and distance learning is necessary to address this. This intends to thoroughly analyze the tools employed by PTs in their online teaching practices. These can offer valuable insights, specifically on connecting these specialized nodes and determining the reciprocal connections between knowledge, community, and learning within course structures and interactions. Additionally, studying the knowledge patterns that emerge from these tools can inform the development of more efficient online teaching strategies.

### **2.3. Successful Networks and Pre-Service Teaching Practices**

In the Practice Teaching Field, pre-service teaching is vital to teacher preparation programs. During this phase, aspiring teachers, known as teacher candidates, practice teachers, or student teachers, gain practical experience in actual classrooms. They collaborate with mentor teachers, learn from experienced educators, and gradually take on teaching responsibilities (Antallan et al., 2022). Traditionally, these practicum experiences have been confined to local universities or colleges.

However, educational institutions are now focusing on developing partnerships and collaborations with foreign institutions to provide a platform for PTs to experience teaching in different educational settings (Fitriyah, 2023). This transformation aligns with the growing focus on borderless education and globalization. This initiative is driven by the importance of equipping PTs with the skills needed to tackle the challenges of the twenty-first century. One such program is the Internationalization Program on Practice Teaching (IPP), which aims to equip teachers with these necessary skills (Cabiladas, 2020).

While traditional methods are still prevalent, teaching programs worldwide are evolving to meet the needs of the changing educational landscape. Widespread pre-service teaching practices are observed globally. The Council for the Accreditation of Educator Preparation (CAEP) in the United States sets standards for teacher preparation programs, including online ones (Romanowski, 2021). These standards cover various aspects of teacher preparation, such as content and pedagogical knowledge, clinical partnerships and practice, candidate quality, program impact, and provider quality assurance and continuous improvement (Romanowski, 2021). Most institutions use a combination of virtual classrooms, video recording, and online

modules to train PTs. Heafner's (2022) investigation found that teacher candidates who finished the online pathway came out more classroom-ready, calling into question the premise that traditional teacher preparation methods are ideal. The results also underscore the possible advantages of online learning in delivering equitable curricular opportunities and supporting educators in adapting to the new reality of educating and acquiring information using digital technology.

In the United Kingdom, for instance, Initial Teacher Training (ITT) traditionally involved school-based training. However, online learning programs and integrating information and communication technologies (ICTs) have introduced more flexible and effective professional development methods. The development of online courses like the Certificate in Online Learning exemplifies this shift, as these programs are based on sound pedagogical principles and tailored to the specific needs of teachers (Cowham & Duggleby, 2019). As highlighted by Stenalt (2023), the role of accrediting bodies has been crucial in ensuring the continued development and quality of these online courses.

In contrast, Australia's teacher education programs blend university coursework with hands-on school experience, adhering to the Australian Professional Standards for Teachers (Spina et al., 2022). While some courses are offered online, practical experience is vital and obtained through in-person teaching opportunities. These programs effectively merge university-based learning with the invaluable insights gained from practical experiences. Spina et al. (2022) further indicate that the teacher performance assessment policy mandate introduced an external accountability context that enabled teacher educators to improve the quality of teacher education programs and establish collaborative partnerships.

As the field of education continues to evolve, the importance of successful networks and pre-service teaching practices is becoming increasingly recognized. Successful networks play a critical role in supporting both new and experienced teachers. These networks provide PTs with valuable experiences and exposure to various teaching strategies, helping them build the skills and confidence required to evolve into effective educators. Leveraging technology, PTs can cultivate Personal Learning Networks (PLNs) to connect with a broader community of educators, share best practices, and engage in continuous professional development. Moreover, international internships are now widely recognized as a strong, horizon-expanding, and competence-enhancing experience (Mantel et al., 2022). PLNs have become essential in universities offering teacher education programs, particularly as part of their expanding internationalization initiatives.

However, both networks and pre-service programs face the challenge of staying current with the latest developments in education. As new technologies and teaching methods emerge, these programs need to adapt and evolve to provide the most up-to-date training possible. Furthermore, while international internships have been recognized as beneficial in most countries, there is a pressing need to research how the instructional delivery of the International Practicum Program (IPP) for practicum teachers can be improved for an even more enriching and valuable learning experience. By exploring these opportunities and implementing strategies to improve the IPP's instructional delivery, universities offering teacher education programs can ensure that practicum teachers gain the most from their international internships.

## 2.4. Challenges in Practice Teaching

International teaching practicums have become increasingly popular recently (Mantel et al., 2022). These programs offer aspiring teachers a unique opportunity to gain experience in diverse educational settings, fostering a global perspective on teaching and learning while providing valuable hands-on classroom experience (Antallan et al., 2022). However, navigating the complexities of merging practice teaching with distance education presents a unique set of challenges.

One challenge lies in ensuring practical teacher training for online environments. For instance, the Italian National Plan for Digital Education (NPDE) developed training modules for new teachers (Calzone et al., 2018). While participants reported a connection between their preferences and the program's effectiveness, the study revealed weaknesses: understanding key concepts to tailor learning paths, identifying learning obstacles, and recognizing factors contributing to successful learning. Like Fuchs et al.'s (2022) investigation, their findings suggest that PTs may struggle with self-regulating their learning in online courses despite feeling digitally prepared.

The challenges emerged when the pandemic required educational institutions to transition to online teaching practicums. While online practicums still offer valuable learning opportunities, they come with their considerations to ensure a successful experience (Taghizadeh & Amirkhani, 2022). Effective online teaching strategies are crucial, particularly during a global health crisis. Taghizadeh and Amirkhani (2022) highlight the importance of online learning communities in fostering connection and reducing feelings of detachment among students. This was affirmed by Cabiladas (2020), suggesting that student enthusiasm and active participation contribute to a more positive teaching experience.

Taghizadeh and Amirkhani (2022) state that practicing online teachers promotes collaborative assignments and student-focused tactics to increase engagement. Creating a positive, friendly environment and effective online classroom management is crucial for success. Group work, collaborative efforts, and online learning groups are all valuable strategies for increasing participation and decreasing isolation. It is also necessary to manage social behavior and conduct issues, such as dealing with shy, unsettling, and domineering students (Antallan et al., 2022). Effective classroom management, whether online or offline, includes mentoring students, encouraging enthusiasm to continue learning, and anticipating potential problems (Tuma et al., 2023).

Despite some challenges, online practice teaching offers advantages. Fitriyah (2023) acknowledges that while some teachers may disagree with this approach, others see it as an opportunity to enhance their content knowledge and teaching methods. Furthermore, Tanguihan (2021) identifies several benefits, including developing essential teaching skills such as technology proficiency, lecture delivery, course management, and assessment. Jones et al. (2017) reinforce these advantages, highlighting how digital tools can enhance teaching practices and outcomes through networked learning. Networked learning leverages technology to create connections and facilitate continuous learning and knowledge-sharing, making it particularly valuable for professional development without requiring time away from work.

Jeon et al.'s (2022) investigation into the Design-Based Learning Project offers insights into developing effective virtual learning environments for pre-service EFL teachers. Their research emphasizes the importance of communication and engaging learning environments. Control and ubiquitous communication promote verbal

interaction, while game-based learning fosters experiential, collaborative, and authentic language acquisition. Constructability and multimodal sharing also play a role in active learning, allowing educators to develop technological awareness and encourage student engagement with peers and materials.

While online practice teaching offers numerous benefits, challenges need to be acknowledged. Hill (2022) found that many PTs believe face-to-face observations and opportunities for classroom instruction are more advantageous for teacher preparation and building relationships. Tanguihan (2021) also highlights several drawbacks, such as the lack of hands-on experience, limited interaction and collaboration, unclear feedback, multitasking difficulties, accessibility and connectivity issues, and insufficient technology training. These factors can contribute to a sense of detachment from the natural classroom setting for PTs.

Cabiladas' (2020) study on a bilingual and English program for Thai students highlights additional challenges. Difficulties with teaching materials and strategies arose due to the complexity of the content and the gap between the vocabulary used in the materials and the student's native language. Limited access to educational resources further exacerbated these problems. Filipino teachers in the program also faced challenges identifying effective teaching techniques for English and other subjects.

Furthermore, effective communication and environmental engagement were critical even in the practice teaching setup. This highlights the importance of hands-on experiences and exposure to the field. According to Tarchi et al.'s (2022) study, technological awareness and peer communication are also crucial. The study revealed a significant gap between theoretical definitions and conceptions of learning. PTs should have recognized the relationship between changes in the learning environment

and teaching methods. Similarly, their reflections on the skills required for online learning were limited to fundamental competencies. While knowing how to navigate a learning management system or video conferencing tool is valuable, it is essential to understand that online learning encompasses more than just these skills. This is especially significant in emergent distance education, where timely adaptations are required at both the technological and pedagogical levels. Leveraging Personal Learning Networks (PLNs) can be instrumental in supporting PTs during this transition by providing access to a community of peers, mentors, and experts who can offer guidance, share resources, and collaborate on problem-solving.

Connectivist pedagogies emphasize knowledge, critical thinking, problem-solving, and creativity, all of which are essential for success in the 21st century (Eynon & Malmberg, 2020). They are a learner-centered approach emphasizing networks, connections, and skills as crucial components of the learning process. This approach aligns well with the need for technology to create connections and build new knowledge in online practice teaching, as identified in previous research.

However, connectivism as an educational approach also has its critiques. While studies have identified the pros and cons of online practice teaching, one crucial aspect that requires more attention is the technology used and how it can create connections. Additionally, criticisms of connectivism's effectiveness need to be adequately addressed. Some educators have reported positive experiences with the teaching method, while others have felt disheartened, disconnected, and demoralized, according to a study by Goncalves and Osorio (2018). This dark side of connectivism has raised concerns about its potential impact on the human condition, including existential dilemmas, social relationships, and contemporary ideals. Pando (2018) has questioned whether connectivism is a new form of behaviorism and how it can

enhance teaching-learning. Addressing these gaps is crucial to understanding connectivism's future in online practice teaching as part of teacher-education training.

To shed light on these gaps, this study intends to develop an illustration of pattern nodes to depict whether the unique connections between various information sources in online practice teaching settings may be revealed. The knowledge from this study intends to substantiate the connectivism theory's elements, including autonomy, diversity, interactivity, and openness. This study also aims to uncover adaptive patterns among PTs by examining their challenges and coping mechanisms in remote teaching. Likewise, this investigation seeks to explore further the practical methods and technologies PTs use. In turn, this study may be able to propose a model for improving the quality of remote teaching and ensuring that the students receive the best possible education.

## **2.5. Conceptual Framework**

Connectivism, a philosophy of learning that emphasizes the dynamic growth of knowledge through reciprocal sharing and reflecting within the social network (Siemens et al., 2020), is reshaping PT training, particularly in the context of online practice teaching. Consequently, PTs engaged in online practice now use new tools and digital learning environments, fundamentally changing work processes and education needs.

In addition, connectivist pedagogies in this networked learning environment require effective collaboration (Bates, 2015) and skillful use of collaborative learning platforms that promote the development of decisive connections and sharing information, as emphasized by Eynon and Malmberg (2020). However, Downes (2012) pointed out a considerable limitation in understanding the neurological basis

for this theory of learning, which hampers our comprehension of the characteristics and processes that drive learning.

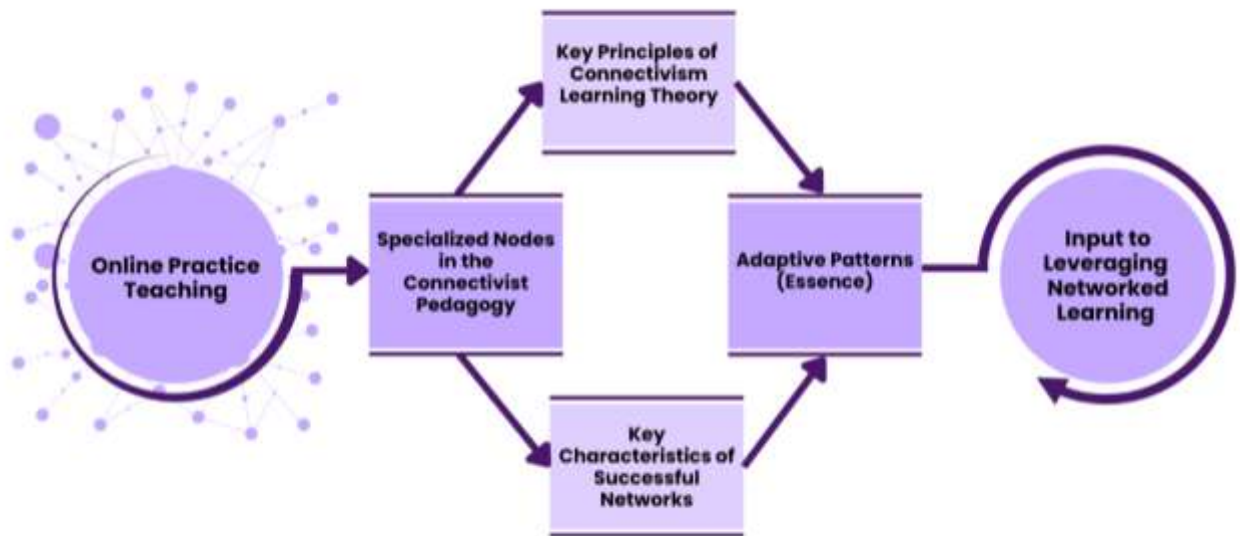
To bridge this gap and explore the learners' subjective experiences within digital contexts, an interpretive paradigm focused on comprehending PTs' lived experiences during online practice teaching was required. Consequently, hermeneutic phenomenology is a research methodology designed to better understand the value of human experiences by analyzing discussions, theories, and philosophical foundations (Kafle, 2013; Suddick et al., 2020). This method facilitated reflection, urging participants to contemplate the meaning of their experiences and what they do (McConnell-Henry et al., 2009). As a result, applying this method to the analysis of PTs' lived experiences in online practice yielded a more profound understanding of their views and perceptions of the learning environment, providing empirical support for the principles and characteristics of connectivism.

This study followed the flow presented in Figure 1. The first phase would include recognizing the unique structure of nodes, mainly how PTs used learning tools and resources to acquire information, exchange knowledge, and engage in social interactions. The sub-questions would examine the connection between these practices and the connectivism learning notion of integrating diverse sources. Furthermore, this would identify currently available learning tools and resources and how PTs have built networks with nodes in the field.

The study would uncover the "adaptive patterns " by using learning tools and resources. This involved setting aside the researcher's preconceived notions and assumptions about online practice teaching (epoche). PTs' reflections on their virtual teaching experiences were essential to the framework as they provided valuable insights into their perceptions and experiences.

**Figure 1**

*Conceptual Framework of the Study*



These responses would uncover the influence of online teaching on their approaches to delivering instruction and PTs' career growth. Likewise, the implications of the online teaching environment on the pedagogical practices and professional growth of PTs could be identified using these reflections. This understanding would then create a program model to enhance connectivity pedagogies.

## **2.6. Operational Definition of Terms**

The following terms and concepts were used operationally to ensure a clear understanding of the discussion:

**Adaptive Patterns**—These refer to the strategies and methods used by pre-service teachers to navigate better the dynamic nature, complex knowledge sources, and challenges of networked learning (Siemens, 2005). These patterns ultimately improved the overall online practice teaching-learning experience.

**Connectivism learning theory**—This theory refers to learning that emphasizes the importance of social interaction and networked learning in the digital age. It suggests that learners must be able to access and use information from various sources and engage in constant knowledge exchange to succeed in the digital era (Siemens et al., 2020).

**Connectivist Pedagogy**—This included using collaborative learning, peer feedback, online discussions, and other networked learning strategies to facilitate the learning experiences of pre-service teachers during online practice teaching.

**Cooperating School**—The foreign teacher education institution (TEI) partner school where online practice teaching was undertaken.

**Cooperating Teachers (CTs)**—They are the selected foreign educators who coach and mentor PTs in their internship programs at their partner cooperating schools.

**Internationalization Program on Practice Teaching (IPP)**—This refers to a networked learning program designed by a university to provide pre-service teachers with opportunities to gain international experience by exposing them to diverse cultural and educational contexts.

**Mentors**—They refer to both the cooperating teacher and supervising teacher who directly oversee and guide the PTs in online practice teaching.

**Networked Learning**—This refers to using social networks and online communities to interact with colleagues, access useful resources, and engage in continuous learning and reflection.

**Phenomenology**—This refers to the qualitative research method, particularly the hermeneutic phenomenology that was used in this study. This method aimed to understand pre-service teachers' subjective experiences and opinions in their online teaching-learning practices.

**Pre-service teachers (PTs)** —They refer to students who were enrolled in a teacher education institution and underwent the preparation for the teaching profession. This study also refers to them as teacher candidates, practicing teachers, or student teachers.

**Specialized Nodes in Online Practice Teaching**—These pertain to human resources such as students, mentors, and colleagues, and non-human resources such as the multiple web-based tools, course materials, acquired skills, prior knowledge, and technologies that were used in the connectivist approach to practice teaching. These nodes offered PTs many opportunities to interact with course materials, collaborate with the network, and exchange their knowledge and experiences.

**Supervising teachers**—They refer to the instructors in higher education institutions in charge of the pre-service teachers' monitoring, observation, feedback, and evaluation.

## **Chapter III**

### **METHODOLOGY**

This chapter explores how the phenomenological approach was used to uncover and comprehend participants' experiences engaged in online practice teaching. It details the research location, data collection tools, and procedures for data analysis, as well as how ethical considerations were addressed.

#### **3.1. Research Design**

This study employed a qualitative method, utilizing a phenomenological approach. This involved looking at PT's subjective experiences in an online teaching and learning environment to understand their meaning. Denzin and Lincoln (2011) emphasized that interpretivist and constructivist frameworks form the foundation of qualitative research. These paradigms seek to uncover deep understandings from study participants rather than predicting results, as in the positivist paradigm. Creswell and Poth (2018) provided a detailed explanation of interpretivism, stating that qualitative research aims to gain information by understanding individuals' distinct viewpoints and the value that they attribute to these perspectives. On the other hand, constructivism stems from the view of knowledge as something people construct as they work to make sense of their experiences. As a whole, qualitative research values people's lived experiences (Denzin & Lincoln, 2011), making it inherently subjective and sensitive to the biases of researchers and participants (Tomaszewski et al., 2020).

By using a phenomenological approach, the research gained a deeper understanding of the phenomenon by investigating the multiple experiences of PTs involved in online practice teaching-learning. This approach integrated Heidegger's

idea of "being in the world" as a critical aspect of the researcher's role (McConnell-Henry et al., 2009, p. 8). Hermeneutic Phenomenology recognizes that people's experiences are subjective (Kafle, 2013), and Heidegger's idea of "Dasein" focused on what it means to be human (McConnell-Henry et al., 2009, p. 9)

This concept encouraged PTs to reflect on their own existence, prompting them to ponder the significance of their "Being-in-the-world" (Sloan & Bowe, 2014, p. 1295). This method aimed to reveal the consciousness structures that influenced how PTs viewed and managed their online practice teaching encounters by interpreting their lived experiences within their socio-historical context. Furthermore, interpreting data relied on the researcher's prior understanding, known as "fore-conception," and existing knowledge (McConnell-Henry et al., 2009, p. 9).

Braun and Clarke (2020) situate phenomenology's methods in a personal knowledge and subjectivity paradigm, emphasizing the importance of personal viewpoint and interpretation. This centered on how individuals perceive the world, specifically how they perceive "the things in their appearance" (Sloan & Bowe, 2014, p. 1293). According to Moustakas (1994), phenomenology is the key to understanding someone else's perspective because it examines both the "what" and "how" of an experience.

As PTs entered the online practice teaching environment, they exhibited various adaptive patterns. It was critical to investigate other people's experiences. Educational experts and teachers universally acknowledge the significance of acquiring knowledge from the experiences of others. Neubauer et al. (2019) argue that to comprehensively grasp and improve the success of internship programs and associated phenomena, the researcher needs to thoroughly examine the actual experiences of PTs. Moustakas (1994) emphasized that researchers should work to

understand the underlying and enduring structure—the essence—of a lived experience as participants have described it.

In this context, the research assumes that reality is subjective, which means that knowledge of that reality is also subjective. This meant that the acquired knowledge was emergent and may change over time as new experiences and perspectives come to light. Braun and Clarke (2020) emphasized that understanding the structure and themes of individual experiences is crucial for researchers. By adopting a participant's perspective, researchers could better grasp the underlying meaning of the investigated experience. This approach involved borrowing the participant's experience and their reflections on it to “describe phenomena phenomenologically” and gain deeper insight into the essential aspect of the lived experience (Alhazmi & Kaufmann, 2022, p. 5).

Furthermore, Cresswell (2014) suggested that the essence is revealed through the data collected from participants and analyzed through the researcher's interpretation. It was first essential to grasp the context to identify the essence of connectivist pedagogies in networked learning. This involved breaking down statements, grouping related meanings, and then linking them to form a comprehensive picture of the online teaching practice and its experience. Moustakas (1994), on the other hand, viewed essence as a universal quality or a fundamental structure that underlies the phenomenon being studied. To him, essence is the core of what is being studied and what makes it what it is.

Moreover, the essence could be discovered through a process of phenomenological reduction, which involved bracketing out preconceived notions and assumptions to reveal the essential structure of the phenomenon. Furthermore, preventing personal biases from interfering with their comprehension of participants'

experiences was essential to maintaining reflexivity and self-awareness (Neubauer et al., 2019). The concept of epoche is not a one-time event but rather an ongoing practice that requires ongoing attention and self-reflection and a process of suspending judgment and bracketing our preconceptions to fully engage in the present moment and understand the essence of our experiences.

Understanding the meaning and nature of a specific phenomenon is crucial in studying how PTs approach learning experiences and processes while participating in online practice teaching. Understanding the underlying purpose made it easier to develop effective teaching strategies and techniques (Sloan & Bowe, 2014). The relationship between subject and object is crucial in creating a comprehensive and practical research design (Alhazmi & Kaufmann, 2022). He added that the objective is to generate precise, pertinent, and meaningful knowledge that considers the context of individuals' experiences and actions.

A phenomenological approach to online teaching emphasized the significance of PTs' reflections. These reflections offered valuable insight into their perceptions and experiences of teaching virtually. According to Neubauer et al. (2019), the approach sought to provide researchers and audiences with a unique opportunity to explore and test a phenomenon by describing its essence. The approach allowed for flexibility and encouraged researchers to shift between lines of inquiry to uncover the underlying structure of the experience. PTs could identify the challenges they faced and the strategies they used to overcome them through reflecting on their experiences. These reflections might also uncover the impact of online teaching on their pedagogical practices and professional development.

### **3.2. Research Locale**

This study explored connectivist pedagogies within the context of online practice teaching at a state university in the Philippines. In this context, the Bachelor of Elementary Education and Bachelor of Secondary Education programs at the state university's College of Education deployed their pre-service teachers virtually to Thailand for international online practice teaching.

The practice teaching component traditionally involved local face-to-face deployment. PTs were deployed in local cooperating schools and provided with preparation orientation and early training on teaching methodologies, classroom management, lesson planning, and assessment techniques. Likewise, pre-deployment involved setting guidelines on professional ethics and familiarizing themselves with the cooperating school's culture and policies. PTs were partnered with authorized cooperating teachers, and they were supervised by the teacher-in-charge for practice teaching from the local state university and administration. Cooperating school and university coordination was established through signed agreements, resource allocation, and evaluation guidelines prior to these engagements. Additionally, PTs were involved in formal and informal discussions with students, community engagements, collaborative learning with co-PTs, and instruction that used traditional instructional materials and technology.

Conversely, the university's Internationalization Program on Practice Teaching (IPP) enabled PTs to participate in deployments at foreign cooperating schools and acquire experience and training in a cross-cultural setting. The program can be implemented in person or online, depending on the foreign cooperating school's request. Through this program, PTs engage in networked learning comparable to conventional practice and acquire professional expertise in teaching students.

This study explored PTs' online participation. Participating PTs were selected based on technical and pedagogical requirements set by teacher education programs. PTs were exposed to virtual communities and personal communication, engaging in both formal and informal online interactions with their students through communication tools. Mentoring and feedback from foreign cooperating teachers and online collaboration with co-PTs were also integral to the program.

Most foreign cooperating schools offer bilingual English programs that aim to improve the English language proficiency of the students and prepare them for international communication and higher education. In this context, the Thai schools collaborated with the state university through a memorandum of agreement along with education programs and projects, including the IPP, which facilitates an online practice teaching program. The study involved two cooperating schools offering bilingual English programs to secondary schools and post-secondary students (12 to 22 years old).

The university's IPP program has demonstrably improved the quality of education it offers. It fosters a more diverse and inclusive learning environment that encourages cross-cultural understanding and collaboration among students and teachers. However, the program's online format, particularly regarding its ability to cultivate the same level of connection and learning as the face-to-face program, still needs to be researched. This study investigates this research gap by exploring the lived experiences of PTs involved in online IPP practice teaching. Therefore, by comprehending the affordances and challenges of online connectivist pedagogies within the IPP, teacher education institutions may strengthen their programs and obtain insights to better prepare future educators for the growing interrelated and digital realm.

The university's dedication to high-quality education and innovative IPP programs made it a good fit for this investigation. This emphasis on developing online delivery techniques for the IPP program is consistent with the rising relevance of online learning in teacher education.

### 3.3. Research Participants

This study investigated the lived experiences of twelve PTs who participated in online practice teaching. Purposive sampling with confirming and disconfirming procedures was used to select participants, ensuring their experiences and perspectives were directly aligned with the research questions (Creswell, 2014). This study selected 12 participants who had completed practice teaching under the university's online Internationalization Program on Practice Teaching (IPP). Table 1 summarizes the categories, teacher education programs, and number of schools and mentors involved.

**Table 1**

*Participants in the study*

Group	Participant	Program	Cooperating schools and mentors	Learners taught	Length of the IPP
Group 1	PTeacher 1	BEEd (General Education)	2 coop schools and 4 foreign mentors	3 sections of secondary school (first shift); 3 sections post-secondary (second shift)	3 months
	PTeacher 2	BEEd (General Education)	2 coop schools and 3 foreign mentors	3 sections of post-secondary (first shift); 3 sections of secondary school (second shift)	3 months
	PTeacher 3	BEEd (General Education)	2 coop schools and 4 foreign mentors	3 sections of secondary school (first shift);	3 months

				3 sections of post-secondary (second shift)	
Group 2	PTeacher 4	BEEd (General Education)	1 coop school and 5 foreign mentors	5 sections of mixed post-secondary level	3 months
	PTeacher 5	BEEd (General Education)	1 coop school and 4 foreign mentors	5 sections of mixed post-secondary level	3 months
	PTeacher 6	BEEd (General Education)	1 coop school and 4 foreign mentors	5 sections of mixed post-secondary level	3 months
Group 3	PTeacher 7	BEEd (General Education)	1 coop school and 1 mentor	1 section of post-secondary level	2 weeks
	PTeacher 8	BEEd (General Education)	1 coop school and 1 mentor	1 section of post-secondary level	2 weeks
	PTeacher 9	BEEd (General Education)	1 coop school and 1 mentor	1 section of post-secondary level	2 weeks
Group 4	PTeacher 10	BSEd (Major in English)	2 coop schools and 4 foreign mentors	3 sections of post-secondary (first shift); 4 sections of secondary school (second shift)	3 months
	PTeacher 11	BSEd (Major in English)	2 coop schools and 4 foreign mentors	3 sections of secondary school (first shift); 4 sections of post-secondary (second shift)	3 months
	PTeacher 12	BSEd (Major in English)	2 coop schools and 4 foreign mentors	3 sections of post-secondary (first shift); 4 sections of secondary school (second shift)	3 months

Seventy-five percent (75%) of the participants were PTs from the Bachelor of Elementary Education (BEEd) program, while twenty-five percent (25%) were Bachelor of Secondary Education (BSEd) Majors in English. Participants were assigned to one to two cooperating schools and taught secondary school and postsecondary. In this study, participants are grouped into batches and classed by their partnered school and program. Their participation in a learning environment designed around online connectivist principles provided valuable insights. These

firsthand experiences offered a unique perspective on these pedagogies' affordances and challenges in a practical online setting. PTs could describe how online connectivist pedagogies influenced their learning and how they might apply these principles in their teaching.

Furthermore, being PTs, they brought a recent and relevant perspective on online learning compared to experienced teachers who may have adapted to traditional methods. Their experiences revealed how online connectivist pedagogies shaped their initial approaches to teaching, potentially showcasing innovative applications or highlighting areas where the pedagogies could be further developed to better support PTs (Kalu, 2017).

In this study, most PTs selected for the IPP have completed preparatory professional education courses and were currently enrolled in teaching internship courses. Prior to their participation, PTs were introduced to technological and pedagogical training and the concepts related to online teaching and other educational approaches in their preparation years in the teacher education program. The initial training helped PTs become more receptive to innovative teaching approaches. Their openness to online connectivist teaching methods would provide valuable insights for creating a dynamic learning atmosphere for students.

The decision to focus on twelve participants aligns with the recommendations for phenomenological studies, where saturation can be reached with two to ten interviews (Groenewald, 2004). Additionally, selecting a smaller, homogeneous sample is advantageous for conducting in-depth interviews and group discussions, as Patton (2002) and Gray (2004) suggested. This approach facilitates data analysis and ensures a deeper understanding of the phenomenon under investigation.

### **3.4. Research Instruments**

The researcher was the primary research tool in this qualitative phenomenological study (Creswell, 2014). As he emphasizes, the researcher acts as the "key instrument" in qualitative research, collecting data directly through document examination, observation of behavior, or participant interviews. While instruments for recording data might be used, qualitative research typically avoids relying solely on questionnaires or pre-developed tools from other researchers (Merriam & Tisdell, 2015).

The researcher employed a multifaceted approach that addressed potential subjectivity, minimized bias, and ensured the accuracy of findings. This involved collecting data through focus group discussions (FGDs), one-on-one interviews with participants, and relevant journal documents that provided additional context and helped represent the phenomenon under study.

The researcher acknowledged his own preconceived notions while focused on using them to guide initial data interpretation before ultimately seeking to grasp the participants' lived experiences in their essence. This aligns with the principles of hermeneutic phenomenology, which emphasizes an embodied epistemology (Frechette et al., 2023). This approach encourages the researcher to observe and record the participant's reflections. This includes the participants' emotions and physical responses (nonverbal cues) in a reflective manner. It also involves recognizing and validating participants' emotions to demonstrate understanding and empathy, fostering trust, and creating a safe space for open communication.

### 3.4.1. Focus Group Discussions (FGD)

Understanding a particular experience hinges on examining individuals' meaning-making processes, which are often facilitated by phenomenological reflection and writing (Tomaszewski et al., 2020). These methods allow individuals to understand the meaning behind their experiences better. FGDs, interviews, and reflections from the journal documents were integrated into the research design, enhancing this process and gaining more comprehensive insights.

After gathering and reviewing the journal documents, the researcher scheduled four FGD sessions, each composed of PTs from the same batch and cooperating schools. This platform aimed to facilitate open and constructive conversations surrounding the participants' personal experiences and challenges related to online practice teaching (Gray, 2004). The reflective structure of the questions used in the FGD was developed based on Farrell and Macapinlac's Reflective Framework (2021). Table 2 presents this framework's stages, purposes, and sample questions.

**Table 2**

*Sample Reflective Questions as aligned with Farrell and Macapinlac (2021)*

*Reflective Framework*

<b>Reflective Framework Stage</b>	<b>Purpose</b>	<b>Reflective Questions</b>
<b>Philosophy</b>	The primary goal of the beginning phase was for the participants to achieve self-consciousness by reflecting on their previous experiences and background, as these factors significantly impacted the development and route of their lives.	<ul style="list-style-type: none"><li>• How would you describe your personal teaching philosophy and how does it inform your online practice teaching?</li><li>• Do you believe that engaging in social interaction during online practice teaching is essential for developing a strong teaching philosophy? Can you explain your answer?</li></ul>

<b>Principles</b>	This examination provided an opportunity to scrutinize the participants' values and ensure they were transferable to real-world situations.	<ul style="list-style-type: none"> <li>• What principles or standards do you prioritize in your online practice teaching?</li> <li>• In what ways did the program expand your understanding of international perspectives in education?</li> </ul>
<b>Theory</b>	This stage was for the participants to contemplate how their theories and practices impacted the classroom environment and, ultimately, the learning outcomes of their students.	<ul style="list-style-type: none"> <li>• What specific learning theories do you find most relevant to what you are doing in the online training?</li> <li>• How do these theories inform your approach to designing and facilitating online practice teaching experiences?</li> </ul>
<b>Practice</b>	Participants who integrated their philosophy, principles, theory, and practice helped students establish reflective skills. Farrell (2014) distinguished three types of reflection: for action, in action, and on action.	<ul style="list-style-type: none"> <li>• How did you collaborate with other PTs and international colleagues during the program?</li> <li>• How do you encourage collaboration and knowledge sharing among learners in your online practice teaching?</li> <li>• How do you assess the effectiveness of your online practice teaching and adjust your approach accordingly?</li> </ul>
<b>Beyond Practice (Critical Reflection)</b>	Reflecting on this phase encouraged participants to engage in a "critical dialogue" with their field of practice, which resulted in a better understanding of the reciprocal link between what they taught and the community.	<ul style="list-style-type: none"> <li>• What were the areas of improvement for the program to better support PTs in their teaching practice?</li> <li>• What suggestions do you have for improving the program and making it more accessible to other PTs?</li> <li>• How will you continue to integrate the lessons and experiences gained from the program into your future teaching practice?</li> </ul>

As highlighted by Farrell and Macapinlac's Reflective Framework (2021), critical reflection is a crucial component of professional growth. Farrell (2014) introduced this framework to encourage teachers to reflect on their practice holistically. While prior reflection efforts often focused on specific aspects, this framework integrates all these aspects into a comprehensive process.

The research began by eliciting PTs to reflect on themselves as teacher-as-person to delve into their philosophies of education, which involve examining their values, beliefs, and worldviews. PTs might believe they have identified their teaching

principles, but these may be unspoken and not associated with their classroom experiences. Dewey's (1933) argument, as cited by Farell and Macapinlac (2021), suggests that principles are often accepted without rigorous testing or substantiation. Therefore, reflecting on teaching principles, how their teaching theories could be applied, and whether they aligned with their classroom practices was particularly important for the PTs engaged in networked learning.

### **3.4.2. One-on-one Interviews**

Following the focus group discussions (FGDs), one participant from each session was selected for a one-on-one interview. This approach allowed for a more in-depth exploration of individual experiences, complementing the broader insights from group discussions (Creswell, 2014). As Merriam and Tisdell (2015) point out, qualitative research often benefits from employing a multifaceted approach to capture a more comprehensive picture of the phenomenon under study.

The interview questions in this study were structured following Seidman's (2013) three-phase phenomenological interview framework to achieve in-depth and effectively guide participants through exploring their experiences with online practice teaching. This framework utilizes a three-phase structure. In the first phase, participants reflected on their experiences with online practice teaching and were encouraged to recall their initial encounters. The second phase delved deeper into the experience, focusing on specific details of their interactions. Finally, the last phase involved participants envisioning the future.

While Gill et al. (2008) acknowledge that interviews can be conducted in various formats (structured, semi-structured, or unstructured), they highlight those structured interviews, while offering clarity on specific topics, can yield less detailed data about a

lived experience. Groenewald (2004) aligns with this perspective, emphasizing the importance of in-depth exploration in phenomenological research. Therefore, to capture the essence of the participants' experiences, a semi-structured or unstructured approach might be more suitable. However, for this study, a structured approach informed by Seidman's (2013) framework was chosen to ensure a comprehensive exploration of key areas while allowing for flexibility and participant-driven insights. This balance between structure and flexibility is crucial for capturing the richness of lived experiences.

The interview began with structured questions to gain insights into the participants' "views, experiences, beliefs and motivations on specific matters" related to online practice teaching (Gill et al., 2008, p. 292). These questions focused on three key areas: (1) how PTs utilized the learning tools and resources to seek information, exchange knowledge, and engage in social interaction, (2) how they coped with the challenges they encountered while teaching remotely, and (3) gathered inputs from the PTs' reflections to leverage networked learning practices within teacher education programs.

Following the structured questions, researchers implemented bracketing rules, guiding participants to temporarily set aside their personal experiences with online practice teaching and focus on its broader significance (Groenewald, 2004). This helped to minimize researcher bias and ensure a more objective perspective.

The structured questions were then followed by open-ended and closed-ended questions designed to elicit additional details relevant to the study's objectives. Creswell (2014) highlights the advantages of using closed-ended and open-ended questions. Closed-ended questions provided predetermined and valuable information that supported existing theories and concepts in the literature. On the other hand,

open-ended questions allowed participants to express their thoughts and feelings in their own words, leading to a more nuanced understanding of the online practice teaching experience. Sample questions from these interviews are presented in Table 3.

**Table 3**

*Sample of the Semi-Structured Questions for PTs*

Questions	Purpose
<b>1. How do you utilize the learning tools and resources to seek information, exchange knowledge, and engage in social interaction?</b>	
1.1. How did your past experiences with online practice teaching shape your understanding of the phenomenon?	<ul style="list-style-type: none"> <li>• Explore how participants leverage diverse resources (technologies, opinions) to enhance online teaching (principles 1 &amp; 3).</li> </ul>
1.2. What technologies did you find most helpful during your online practice teaching?	
1.3. How did you use technology and resources to engage with your students during online practice teaching? What are the improvements you have witnessed?	<ul style="list-style-type: none"> <li>• Identify how participants connect and utilize specialized learning tools within the online teaching environment (principle 2).</li> </ul>
1.4. Were there any resources or tools that you wish you had access to during your online practice teaching?	<ul style="list-style-type: none"> <li>• Understand how participants connect with other professionals in their field through these tools and resources (principle 7).</li> </ul>
1.5. Can you share the positive feedback you have received from your cooperating teachers, students, or parents about using learning tools and resources?	
<b>2. How do you cope with the challenges you encounter while teaching remotely?</b>	
2.1. Have you encountered difficulties adjusting to remote teaching and what challenges have you faced while practicing teaching?	<ul style="list-style-type: none"> <li>• Investigate how participants overcome challenges in online teaching, which demonstrates continuous learning through maintaining connections (principle 4)</li> </ul>
2.2. How have you been feeling about the changes in your teaching environment?	
2.3. Do you have a support system in place to help you cope with the challenges of remote teaching?	<ul style="list-style-type: none"> <li>• Analyze how participants identify connections between ideas,</li> </ul>

2.4. How did technology help you to overcome any challenges you faced during online practice teaching?	fields, and concepts as they address challenges (principles 5 & 6).
2.5. How do you stay motivated to continue learning through the resources you use in your practice teaching?	
<b>3. What learnings can be drawn from your reflections to leverage networked learning practices?</b>	
3.1. Do you find networked learning practices effective in achieving your learning goals, and how do you envision the future of online practice teaching evolving based on your experiences?	<ul style="list-style-type: none"> <li>• Encouraged participants to reflect on their experiences in the Internationalization Program on Practice Teaching (IPP) and its impact on their teaching practice.</li> </ul>
3.2. How comfortable were you using technology for networked learning, and what significant insights did you gain from reflecting on these practices?	<ul style="list-style-type: none"> <li>• Identify opportunities to improve and develop future IPP programs based on participant reflections.</li> </ul>
3.3. What changes or improvements would you like to see in the way online practice teaching is conducted?	

### 3.4.3. Journal Documents

Neubauer et al. (2019) emphasized that the phenomenological approach should incorporate other "authentic modes" of data collection in addition to primary sources like interviews and FGDs. This enriches the research by revealing the essence of the phenomenon under study in greater depth. To achieve this, the researcher gathered additional course documentation relevant to the research questions and methodology.

One such source was the journal documents submitted by participants to their supervising teachers after completing the teaching internship course. These journals documented participants' observations, teaching experiences, feedback received, and reflections on their online practice teaching journey. The journals also identified the challenges they encountered and the techniques they employed to overcome them. As Creswell (2014) suggests, such reflections can reveal the impact of online teaching

on participants' pedagogical practices and professional development. These documents were formally requested and served to confirm the data collected through interviews and FGDs on online practice teaching experiences and PT reflections.

The journals submitted by the students provided reflective insights into how they handled online practice teaching and perceived the use of networked learning strategies (Creswell, 2014). This data source complemented the information gathered through interviews and FGDs, offering a more comprehensive understanding of the participants' experiences.

#### **3.4.4. Field Notes**

The researcher employed additional methods for documenting participant experiences, including video recordings and field notes. While Creswell (2014) acknowledges that recording interviews can be controversial due to concerns about quality and storage, it was deemed the most appropriate choice for effectively capturing data. The researcher followed Kalu's (2017) recommendation of recording and transcribing interviews and focus group discussions verbatim to ensure data accuracy. Additionally, Diccio-Bloom and Crabtree (2006) and Gray (2004) emphasize the importance of comparing transcripts with audio recordings to validate the accuracy of data capture.

While handwritten notes can be helpful during interviews, Groenewald (2004) highlights their potential unreliability and risk of overlooking critical information. Therefore, the researcher opted to video record interviews and used field notes to document procedural details, ensuring ethical conduct and data integrity throughout the research process.

### **3.5. Data Collection**

This study used a multifaceted qualitative approach to comprehensively understand the lived experiences of PTs engaged in online practice teaching, utilizing data from multiple sources. These resources included:

1. Focused Group Discussions (FGD) guided by a Reflective Framework (Farrell & Macapinlac, 2021) to foster a collaborative atmosphere, encouraging open communication and idea sharing among a group of PTs.
2. One-on-one interviews were structured according to Seidman's (2013) phenomenological interview phases. Individual interviews delved deeper into the lived experiences of PTs.
3. Journal documents that provided additional context and represented the phenomenon under study.

The data collection activities were completed over two months. This included an initial recruitment phase, focus group discussions, and individual interviews, which were then scheduled at times convenient for the participants. This comprehensive approach aimed to gather diverse perspectives and insights. As Creswell and Poth (2018) emphasize, phenomenology seeks to capture the essence of how a phenomenon is experienced by those who live it. In qualitative research, searching for meaning through multiple perspectives often relies on triangulation and utilizing various data sources. This approach strengthens the credibility and trustworthiness of the findings.

**Table 4***Research Questions, Data Collection Instruments, and Participant Details*

<b>Research Questions</b>	<b>Data Collection Instrument</b>	<b>Part/Stage</b>	<b>Framework</b>	<b>Prospective Participants</b>
1. How do pre-service teachers utilize the learning tools and resources to seek information, exchange knowledge, and engage in social interaction?	FGD	Philosophy, Principles, and Theory Stages	Reflective Framework (Farrell and Macapinlac, 2021)	4 groups of 3 PTs with prior experience in online teaching
	Interviews	Reflecting on the past experiences	First phase of the phenomenological interview (Seidman, 2013)	1 PT was assigned to each focus group.
	Journal Documents	Observation and Teaching Experiences	Practice teaching journal parts	Document submitted by the PT
2. How did the pre-service teachers cope with the challenges they encountered while teaching remotely?	FGD	Practice Stage	Reflective Framework (Farrell and Macapinlac, 2021)	4 groups of 3 PTs with prior experience in online teaching
	Interviews	Exploring the experience in-depth	Second phase of the phenomenological interview (Seidman, 2013)	1 PT was assigned to each focus group.
	Journals Documents	Feedback and Narratives	Practice teaching journal parts	Document submitted by the PT
3. What learnings can be drawn from pre-service teachers' reflections to inform networked learning practices within teacher education programs?	FGD	Beyond Practice	Reflective Framework (Farrell and Macapinlac, 2021)	4 groups of 3 PTs with prior experience in online teaching
	Interviews	Envisioning the future	Third phase of the phenomenological interview (Seidman, 2013)	1 PT was assigned to each focus group.
	Journal Documents	Reflections	Practice teaching journal part	Document submitted by the PT

### **3.5.1. Scheduling of FGDs and Interviews**

Before collecting the data, the researcher conducted a pilot test of the interview schedule with several PTs who were not part of the main study. This pilot test aimed to determine if the schedule was clear, concise, and practical in eliciting information to answer the research questions. The pilot's results allowed for adjustments to the interview schedule (Patton, 2002). Furthermore, developing a well-designed interview schedule was crucial for this research. It ensured that the research objectives were met and facilitated comprehensive data collection (Gill et al., 2008).

This study employed focus group discussions (FGDs) that lasted between 60 and 90 minutes. While individual interviews typically last 30 minutes to an hour on average (Dicicco-Bloom & Crabtree, 2006), the precise duration can vary depending on the topic, the researcher's facilitation style, and the level of participant engagement. Similar considerations influenced the length of FGDs, with Gill et al. (2008) suggesting a 60 to 90-minute timeframe to ensure a comprehensive exploration of the topic while avoiding participant fatigue.

### **3.6. Data Analysis Procedure**

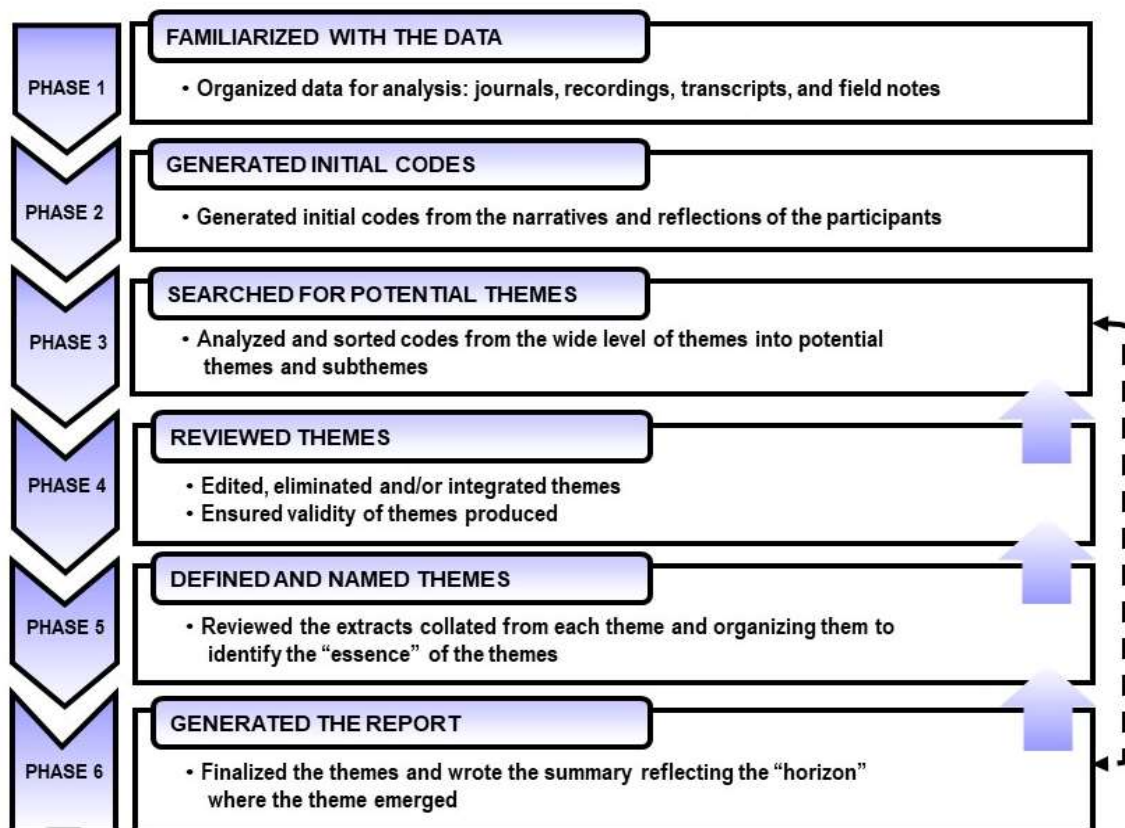
The phenomenological approach centers on understanding the meaning of the participants' lived experiences. Therefore, data analysis focused solely on the participants' descriptions of the phenomenon under study (Tomaszewski et al., 2020). As Braun and Clarke (2020) outlined, the data analysis followed a six-phase process, illustrated in Figure 2.

### 3.6.1. Phase 1: Familiarized with the Data

The first phase involved the researcher familiarizing themselves with the data through immersion. This included conducting interviews, transcribing the recordings, translating, and repeatedly reading through the transcribed data (Charmaz, 2004). This initial immersion allowed the researcher to develop a deeper understanding of the phenomenon from the participants' perspectives, similar to "going native," as described by Goffman (1989 cited by Charmaz, 2004, p. 981). Following standard practice in thematic analysis (Howitt & Cramer, 2011), literal transcripts were created that captured the content of the interviews. This approach aligned with the realist perspective, assuming the text reflects an underlying reality.

**Figure 2**

*Data Analysis Framework based on Braun and Clarke (2020)*



### **3.6.2. Phase 2: Generated Initial Codes**

The second phase involved generating initial or open codes from the data. This process focused on identifying the semantic (literal meaning) and latent content (underlying meaning) within the transcripts. During the initial coding phase, I employed a series of open-ended questions to guide my analysis of the data concerning the research topic. These questions focused on uncovering deeper insights within the transcripts. Specifically, I examined how the data related to PTs seeking information, sharing knowledge, and socializing. Additionally, I looked for any challenges and coping mechanisms they might have mentioned. A core aspect of the analysis involved identifying how these excerpts connected to the overall research question about improving information exchange between patients (IPP). Furthermore, I paid close attention to any emerging concepts or ideas that surfaced within the data that pertained to the research topic. Finally, I analyzed the events or situations described in the data while also considering the message or meaning being conveyed and its connection to the overall research focus.

This research employed a methodological approach that prioritized the lived experience of the phenomenon. The analysis utilized a framework to ensure coherence and addressed the research question (Bingham, 2023; Larsen & Adu, 2021). Openness to emerging themes and concepts within the data was maintained throughout the analysis to capture the richness of the participants' experiences (Bingham, 2023). This analysis relied on manual coding, unlike other qualitative studies. The data was organized on color-coded MS Excel sheets, employing a more personal approach to meaning-making. This approach aligns with the notion that

presenting qualitative findings is an "art form" aiming to effectively communicate participants' lived experiences to readers (Turner & Crane, 2016, p.357).

### **3.6.3. Phase 3: Searched for Potential Themes**

Following the open coding, the researcher analyzed and sorted the various codes into potential themes using Taguette, an online open-source tool. This involved axial coding or collating all the essential coded data. This process entailed systematically reviewing and refining initial codes generated during open coding. The goal is to consolidate these codes into a smaller set of more abstract and theoretically-driven analytic concepts. This streamlining process facilitates the identification of emerging themes and patterns within the data, laying the groundwork for data summarization and interpretation. Braun and Clarke (2020) acknowledged that themes might need refinement, combination, separation, or even discarding during this process. Charmaz (2004) further emphasized maintaining an open mind and avoiding assumptions about the significance of data points throughout this analysis.

This phase also incorporated data triangulation. The researcher converged and analyzed information from multiple sources (FGDs, interviews, and journals) to gain a nuanced perspective on the online practice teaching experience (Creswell, 2014). This systematic approach helped to minimize bias and ensure the accuracy of the research findings, as emphasized by Patton (2002).

### **3.6.4. Phase 4: Reviewed Themes**

Phase four focused on reviewing and refining the identified themes. Following recurring patterns within the data through axial coding, I use selective coding or making initial sub-themes to capture and reflect upon emerging insights. This process

facilitates the consolidation and refinement of previously established pattern codes. These refined codes act as springboards for the articulation of core themes.

After drafting the initial themes, the researcher reviewed and re-read the collated data to determine if the themes emerged into a coherent pattern. This in-depth review also involved checking for missed themes and ensuring the identified themes accurately represented the data. Theme refinement, splitting, or even abandoning some themes could occur at this stage (Howitt & Cramer, 2011).

### ***3.6.5. Phase 5: Defined and Named Themes***

This involved capturing the "essence" of each theme and what these themes revealed about the participants' lived experiences. These themes, captured in concise phrases such as "Facilitating information exchange," "Enhancing knowledge exchange," and "Promoting social engagement," encapsulate the essence of the data and offer a deeper understanding of the phenomenon under investigation. The researcher reviewed extracts collated from each theme, meticulously organizing them for coherence and consistency.

Further clarity and accurate labeling could be achieved by identifying sub-themes within the broader themes at this stage (Howitt & Cramer, 2011). This phase also emphasized the importance of phenomenological reduction, as Moustakas (1994) outlined. This process involved setting aside preconceived biases to uncover the fundamental structure of the phenomenon under study. It required introspection and suspending the researcher's own internalized views of reality to gain a deeper understanding of the experiences described by the participants.

### **3.6.6. Phase 6: Generated the Report**

The final phase culminated in generating the research report. This process began by drawing upon the fully developed themes identified within the data. This was the last opportunity to analyze the data and ensure its coherence (Howitt & Cramer, 2011). The researcher sought both common and unique voices within the data, identifying recurring themes and incorporating relevant extracts as evidence to support the analysis (Howitt & Cramer, 2011).

After finalizing the themes, the researcher wrote a composite summary that accurately reflected the context or horizon from which the themes emerged (Creswell, 2014). This required transforming participants' expressions into language appropriate for scientific discourse.

To ensure credibility, this phase also incorporated member checking (Creswell, 2014). The researcher shared the findings with the study participants and solicited their feedback. In educational research, member checking allows participants to reflect on their experiences and potentially integrate new insights into their teaching practices (Candela, 2019). After collecting this feedback, the researcher carefully analyzed and integrated the data into the research findings. Following Tomaszewski et al. (2020), this might involve revisiting conclusions drawn from participant feedback, identifying areas requiring further examination, and cross-referencing data from various sources or data collection methods. This final step ensured the accuracy and credibility of the overall research findings.

### **3.7. Data Saturation**

The researcher ensured data saturation before concluding the interviews and focus group discussions (FGDs). When no new information or ideas emerge from

interviews, data saturation, a crucial stage in qualitative research, signifies gathering all relevant viewpoints and data reliability (Groenewald, 2004). Moreover, this saturation point is also evident when the data becomes repetitive or when previously collected information is validated through subsequent interviews (Mamabolo et al., 2019).

Supporting this notion, a review by Hennink and Kaiser (2022) of empirically based studies indicated that qualitative research could achieve saturation with relatively small sample sizes. They described various approaches to assess saturation, all demonstrating that a limited range of 9–17 common ideas from the interviews or 4–8 FGDs can reach saturation. This finding is relevant because we have established a homogeneous participant group and clearly defined research goals for this study.

### **3.8. Ethical Considerations**

This research study placed a high importance on ethical data collection methods throughout the process. To ensure compliance with necessary research protocols, the researcher collaborated extensively with the state university's Research Ethics Committee (REC).

Following the acquisition of clearance, the researcher sent official correspondence to key university administrators, starting first with the office of the campus chancellor and directing it toward the dean of the College of Education. These letters sought official consent and outlined the researchers' approach to maintaining full data confidentiality and university documents' security.

Subsequently, all participants were provided with written consent acknowledging their voluntary participation in the study. The research ensured the full

safeguarding of participant privacy to protect participant privacy further. The researcher took measures to guarantee the secrecy of all student information and other sensitive data to minimize the risk of violating learner confidentiality. The research did not include participant names. Respect for participants remained a core principle throughout the research, as is essential in any study involving human subjects (Tomaszewski et al., 2020). In addition, the researcher used bracketing, an essential approach in phenomenology, to zone in the studied phenomena.

## **Chapter IV**

### **RESULTS**

This chapter presents an in-depth analysis of data derived from the lived experiences of pre-service teachers (PTs) engaged in online practice teaching. Each theme is explored using a triangulation method that draws on the data from focus group discussions (FGDs), individual interviews, and the participants' reflective journals. The central focus of this analysis is to gain a multifaceted understanding of their lived experiences as PTs transitioned to the online practice teaching environment.

This chapter focuses on the themes emerging from the investigations on how the tools facilitated information-seeking, knowledge exchange, and social interaction within the online learning environment. Subsequently, this is followed by themes emerging based on the challenges encountered by PTs while teaching remotely and the emerging themes on the strategies they employed to overcome these difficulties, revealing the ups and downs of the employed connectivist pedagogies. Lastly, the thematic analysis of the PTs' reflections and insights to enhance the networked learning practices provided a nuanced understanding of the opportunities and challenges faced by PTs in online practice teaching, mainly through the lens of connectivism.

Table 5 presents a structured overview of the key themes and subthemes arising from the data analysis. Each theme and subtheme is assigned number codes for reference in subsequent discussions.

**Table 5**

*Outline of the themes and subthemes*

<b>Areas of Investigations</b>	<b>Themes</b>	<b>Subthemes</b>
4.1. Leveraging tools and resources in online practice teaching	4.1.1. <i>Facilitating information exchange</i>	4.1.1.1 Understanding the learners and their culture
		4.1.1.2. Seeking information to build expertise
	4.1.2. <i>Enhancing knowledge exchange</i>	4.1.2.1. Collaboration through shared resources
		4.1.2.2. Promoting active learning
		4.1.2.3 Valuable feedback from mentors
		4.1.2.4. Self-reflection in action
	4.1.3. <i>Promoting social engagement</i>	4.1.3.1. Socializing with students
		4.1.3.2. Socialization with mentors
		4.1.3.3. Social experiences with co-PTs and other stakeholders
4.2. Challenges and coping mechanisms in online practice teaching	4.2.1. <i>Communication Challenges</i>	4.2.1.1. Language barriers
		4.2.1.2. Reduced participation
	4.2.2. <i>Bridging the communication gap</i>	4.2.2.1. Maintaining clear and concise communication
		4.2.2.2. Using visual aids and interactive activities
		4.2.2.3. Contextualizing instruction
		4.2.2.4. Utilizing online communication platforms
	4.2.3. <i>Instructional challenges</i>	4.2.3.1. Student engagement issue
		4.2.3.2. Lesson planning issues
		4.2.3.3. Technical issues
	4.2.4. <i>Developing online teaching strategies</i>	4.2.4.1. Creating interactive presentations
	4.2.5. <i>Unspoken conflicts</i>	4.2.5.1. Conflicts with colleagues
		4.2.5.2. Conflicts with CTs
	4.2.6. <i>Support systems and growth mindset</i>	4.2.6.1. Support networks
		4.2.6.2. Growth mindset
4.3. Insights to leverage the integration of networked learning	4.3.1. <i>Strengthening the IPP</i>	4.3.1.1. Enhancing online teaching skills
		4.3.1.2. Promoting continuous learning for educators
		4.3.1.3. Optimizing program structure
		4.3.1.2. Addressing technical hurdles

## **4.1. Leveraging Tools and Resources in Online Practice Teaching**

This area of investigation explores the themes related to the role of tools and resources in online practice teaching through the lens of connectivist pedagogies. These pedagogies emphasize fostering connections within information networks to create a dynamic learning environment. By analyzing how PTs utilize these tools and resources, valuable insights can be gained to empower them with effective online teaching practices.

The analysis revealed three key themes that illustrate how technology facilitates collaboration. This section delves deeper into the first theme, facilitating information exchange. This theme explores how tools and resources enabled the PTs to create and share knowledge within the online learning network. Subsequently, the remaining themes were explored.

### **4.1.1. *Facilitating Information Exchange***

The first theme has two subthemes. The first subtheme focuses on understanding the learners and their culture, while the second subtheme is more about seeking information to build expertise in online teaching. These subthemes shape the participant's approach to facilitating information exchange by understanding the type of learners they are teaching and refining their skills to adapt. It is also important to note how the participants' prior knowledge and experiences have influenced their practices in the online classroom. A closer analysis of these sub-themes will reveal PTs' specific strategies and techniques.

**4.1.1.1. Understanding the Learner and their Culture.** The first subtheme highlights how the participants drew upon their past experiences and information

mentioned about the international practice teaching program to establish a foundation for understanding their students' backgrounds, cultures, and learning styles. This knowledge served as their springboard for venturing into online resources and tailoring their strategies.

Data from FGDs elaborated on this further. The participants emphasized **student observation as a cornerstone for understanding** their students' strengths, weaknesses, and learning styles. These observations extended beyond the online classroom environment as PTs also drew upon their experiences. For example, participants shared:

*"The first is...language barrier; we...know how difficult it is to communicate with someone who does not speak in his or her native tongue..." [PTeacher 1]*

*"Initially, I thought the biggest obstacle would be the language barrier... Throughout the teaching and learning process, you encounter cultural aspects..." [PTeacher 11]*

Accordingly, participants recognized language barriers hindering their students' learning. Participants were able to set realistic goals and developed targeted strategies to bridge this communication gap based on the information sought about students' level of English proficiency. This involved identifying resources that supported effective techniques like active listening, encouraging participation, and using visuals to enhance understanding. Interactive activities, visually engaging presentations, and clear gestures became crucial tools for conveying information and building connections with students, despite the inherent limitations of online learning. Participants disclosed:

*“I establish clear expectations for active listening. This is crucial because the language barrier can hinder comprehension. Active participation, beyond just listening, is also essential for their learning.” [PTeacher 4]*

*“While I anticipated challenges due to the students' limited English proficiency, my ultimate goal remained to teach them and facilitate their learning effectively, even if communication was not always smooth.” [PTeacher 5]*

*“...we have objectives to achieve based on established principles and standards. These principles guide us in setting online learning standards, similar to those used in a traditional classroom setting...” [PTeacher 8]*

The following interviews confirmed that even those who have received advanced skills and instruction in their previous courses still have uncertainty when implementing their plans. PTeacher 1 confirmed that one of the most effective methods of learning is through the observation of learners' abilities:

*“...Even though I am a tech-savvy teacher, I still have doubts. I constantly wonder if this design is appropriate for my PowerPoint presentation...While observing students, you can truly see their strengths and weaknesses. Start by being observant.” [PTeacher 1]*

One of the participants revealed a clearer idea of the learning setup and the participant's perception of these encounters. PTeacher 4 mentioned:

*“Some students have weak internet connections and may not be able to see the content clearly, requiring me to repeat it. On the other hand, some students are actively engaged and demonstrate high levels of understanding. Engagement varies, so I participate actively in discussions. Even if some students struggle to speak, I offer individual support to help them one-on-one.” [PTeacher 4]*

This is why most of their journal entries revealed more proactive approaches, highlighting how they researched students' cultures. This offers a window into the PT's world. One participant, preparing for Thai students, reflects:

*"As I sit down at my desk, preparing to teach my Thai students online, I cannot help but feel a mix of excitement and nerves. Before each lesson, I take a moment to review the culture of Thailand..." [PTeacher 9]*

Another entry revealed PTs' multifaceted approach to gathering information about their students before lessons. This approach underscores the importance of understanding not just backgrounds but also learning styles. The entry reads:

*"Before designing any lesson, I take the time to understand my Thai students' learning styles and preferences. This helps me tailor my lessons to suit their needs and make the content more relatable. To make the lessons more personal and relevant to my Thai students, I infuse cultural elements from Thailand into the curriculum. This helps create a sense of familiarity and fosters a deeper connection to the content." [PTeacher 9]*

This observation process initially provided a foundational understanding of the learner and the learning context. This understanding subsequently informed the development of future observation practices and instructional methodologies tailored toward personalized learning. This iterative process, stemming from interpreting student needs, enabled personalized learning experiences. The participants shared their reflections:

*"Perhaps understanding the role of learners is key. Having been a student myself, I can relate to their experiences. This allows me to identify student behaviors that hinder or enhance learning. By drawing on these insights, I can*

*tailor my teaching approach to make the learning process more efficient and effective for them.” [PTeacher 4]*

*“... I prioritize recognizing the unique strengths and learning styles of each student. This includes acknowledging that some students learn more quickly while others may require additional time or personalized approaches. My goal is to ensure that all learners, regardless of pace or style, can grasp the material.” [PTeacher 5]*

Moreover, by listening to their student experiences, participants developed empathy for their behaviors, allowing them to tailor their teaching strategies accordingly and cultivating a more supportive and relatable learning environment. Findings from the FGDs revealed:

*“To create effective and engaging learning experiences, incorporating learning theories is essential. This process begins with observing your class to identify their strengths and weaknesses. This information not only helps you tailor your teaching approach to their needs but also reveals areas where you, as their teacher, can enhance your skills.” [PTeacher 1]*

*“...we were able to use these learning theories to understand our students' attitudes, how they process information provided by the teacher, and how they function in team or group activities. These learning theories will help you develop a deeper understanding of children.” [PTeacher 8]*

Furthermore, PTs found their formal coursework valuable in lesson planning. Journal reflections drew upon their prior and existing knowledge of locating online resources and crafting effective lesson plans to inform the design of their online curriculum. Participants wrote:

*“Remember those times we spent scouring the web for online lesson samples and templates? Well, guess what? We are putting all that to good use now with some awesome interactive presentations for our Thai students!”*  
[PTeacher 6]

*“My background in “Educational Technology” from my third year of college proved invaluable during my online teaching experience. It allowed me to apply different learning strategies in an online setting and utilize tools like Google Meet for video conferencing.”* [PTeacher 8]

This commitment to understanding students' backgrounds and learning styles showcased PTs' dedication to building upon the student's prior knowledge and experiences. This focus on personalized learning carried over to the journal entries. PTs wrote:

*“The students' intelligence genuinely surprised me. Their ability to understand basic Filipino words was a delightful discovery. Their comprehension of my questions and discussions was impressive, often leaving me speechless by their insightful answers.”* [PTeacher 1]

*“I provide personalized learning for each student. This means adapting the pace and level of grammar lessons to their individual needs.”* [PTeacher 4]

Building on the importance of understanding learners, the findings show how this knowledge translates into a smooth student online learning experience. Participants also recognized the importance of clear lesson structures. Moreover, participants' prior knowledge, gained through the formal courses and their personal experiences in online classes, served as a foundation for addressing the challenges in online teaching. As one participant reflected:

*“...The purpose of a well-crafted lesson plan is to serve as a roadmap, ensuring consistency between the teacher's intended instruction and the learning objectives.” [PTeacher 6]*

Another participant highlighted the value of their prior training in the interview:

*“The most helpful tool for me was Google Meet. Since we used it in my third year to learn how to teach online, I became more proficient in using it for my recent Online Practice Teaching.” [PTeacher 8]*

This established knowledge base further guided their online curriculum design, allowing them to confidently utilize online tools and platforms to deliver effective and engaging lessons.

Lastly, PT demonstrated a strong commitment to cultural understanding. PTs went beyond simply acknowledging diverse backgrounds by actively researching students' cultural backgrounds, complementing their findings with insights from learners. As one participant noted:

*“The Internet serves as the primary platform for online instruction, facilitating essential social interaction between teachers and students. This interaction allows us to assess student comprehension, enabling us to provide corrective feedback. Furthermore, it creates opportunities to apply previously learned theories to real-world teaching scenarios.” [PTeacher 6]*

This deeper engagement with students' backgrounds fostered a sense of connection. Consequently, participants created lessons that resonated with their students' culture. The online world, brimming with resources, became a springboard to tailor the curriculum with cultural elements, making learning inclusive and impactful. Another participant's journal entry exemplifies this:

*“For students like these, online grammar lessons come alive with multimedia resources, online quizzes, and games. Peer collaboration and personalized learning also play a big role. By incorporating these strategies, I can create an engaging and interactive experience that helps them excel in their English language journey.” [PTeacher 4]*

PTs were able to leverage the affordances of online tools to create a more engaging and culturally responsive learning environment by gaining a deeper understanding of their students and their backgrounds. It is important to note that tools emerged as a key factor in captivating learners within the virtual classroom, despite the ongoing challenge of sustaining engagement (explored further in 'Challenges in Online Practice Teaching'). When used effectively, these tools facilitate information-seeking grounded in a deep understanding of student needs, which is explored further in the next section.

**4.1.1.2. Seeking Information to Build Expertise.** This subtheme expands upon the previous sub-theme. This explored how information-seeking skills advanced, focusing on methods for critically evaluating content, tailoring lessons to diverse needs, and utilizing technology to create interactive learning experiences. Most participants emphasized the importance of clear learning objectives in providing a roadmap to align their pedagogies. For example, findings from the FGD revealed:

*“I prioritize ensuring my teaching and learning objectives are well-defined and targeted. This ensures that I deliver a valuable educational experience for my students.” [PTeacher 4]*

*“I completely agree with using varied strategies in online teaching. It is crucial to be creative and implement different approaches to make online classes*

*successful. Essentially, P10 and I are saying that online learning seems to necessitate a more flexible and adaptable teaching style than traditional classroom settings.” [PTeacher 11]*

The data on interviews also revealed this shift in the information-seeking process. PTs specified that they learned to go beyond simply searching. They transitioned into active investigators, carefully evaluating the credibility of online resources through a verification process such as comparing information with established sources or utilizing online verification tools. These are exemplified in the participants’ reflections. For example, one participant mentioned:

*“...To ensure source credibility, I verify the source myself. My colleagues and I also ask each other, 'Where did you find this topic?' We also share lessons for verification. The most important factor is a verified source, but when unavailable, we ask, 'Have you seen this? Does it seem appropriate?’ [PTeacher 11]*

This information clarifies the premise discussed in their journal about technology, specifically emphasizing the need for thorough scrutiny and investigation before its use, drawing attention to its benefits and importance. Similarly, the writing shed insight into concepts related to alternate evaluations and tasks. The participants expressed in writing:

*“Technology can be a powerful tool, but it is important to remember that it can also create barriers for some learners. Providing alternative options for assessments and assignments is crucial.” [PTeacher 4]*

*“...They suggested incorporating games and activities instead of solely relying on discussions. This feedback has inspired me to experiment with new tools*

*and techniques to enhance student engagement and create a more dynamic online learning experience.” [PTeacher 8]*

Journal entries further showcased the participants' evolving approach prioritizing inclusivity by offering varied assessments, adapting to student feedback with engaging new tools, and adjusting communication based on student proficiency levels. These multifaceted approaches were also emphasized in the FGDs and interviews. Participants tailored instruction by considering factors like their students' learning styles, cultural backgrounds, and personal preferences. These personal preferences included the use of traditional methods that were even adapted for the online space. Some PTs incorporated the use of costumes, realia, and other tools to create a more relatable learning environment. One participant described:

*“...Contextualizing lessons to their cultural backgrounds can significantly enhance effectiveness. Students will be able to relate to the material more easily. Additionally, as mentioned before, we can incorporate aspects of constructivism by allowing learners to construct their understanding of the material actively.” [PTeacher 11]*

Interview data revealed that participants have extended beyond content delivery. They focused on creating engaging learning resources through the use of interactive tools like gamified quizzes and adding multimedia elements. User-friendly online applications enabled the participants to design visually appealing and learner-centered activities, reinforcing learning. Participants shared:

*“That is why I download resources beforehand, and some websites even offer downloadable content. For example, I can download activities from Wordwall, which I usually use. Quizizz does not work well for me; it constantly loads” [PTeacher 4]*

*“Google remains the most accessible tool for searching for subject-specific and lesson-related information. I am constantly learning and adapting to improve my ability to identify resources that students can understand best...I have learned that understanding the content is crucial for effective resource utilization...” [PTeacher 11]*

Across all data sources, interactive activities have emerged as an essential component in online lessons. These activities were instrumental in creating a conducive learning atmosphere virtually. A participant described this:

*“Interactive presentations were our secret weapon! We gamified learning with word puzzles, songs, and even a Thai twist on Jeopardy. The students...thrived on these activities...” [PTeacher 7]*

Moreover, the learning theories also played a crucial role in shaping lesson design. Participants drew upon these approaches to create activities that fit learning styles and encouraged active student participation. Open dialogue and discussions among cooperating teachers and peers fostered a space for exchanging best practices. These also paved the way to troubleshooting the initial challenges encountered. For example, participants shared:

*“Fostering a sense of community through online platforms has been essential, allowing for collaborative learning and cultural exchange.” [PTeacher 2]*

*“...Constructivism allows students to explore, discover, and apply concepts in their own words. Behaviorism...emphasizes providing clear objectives and structured feedback...” [PTeacher 7]*

This section has highlighted the importance of PTs developing strong knowledge-seeking skills in professional development. The theme has shown how critical evaluation and a focus on student needs led PTs to move beyond teacher-

centered instruction. However, PTs have transitioned into active learners who critically evaluate the available interactive tools to build an inclusive virtual learning environment.

#### **4.1.2. Enhancing Knowledge Exchange**

The second theme highlighted how the knowledge exchanged becomes a forge for PTs. In this section, the quality of collaboration and feedback refines their teaching skills. These findings indicated an environment of strong collaboration that fosters growth. PTs engage in a process that transcends mere knowledge acquisition through this online space. Moreover, this section reveals examples of how PTs learned from one another, shared resources, and received feedback that refined their teaching practices, as explored in these subthemes.

**4.1.2.1. Collaboration Through Shared Resources.** The online learning environment fostered by these participants transcends a simple information exchange. Reflective insights gleaned from FGDs reveal a dynamic ecosystem of knowledge co-creation. Students actively participate, sharing their experiences and cultural perspectives, enriching PTs' learning experience. This collaborative approach expands the resource pool beyond traditional lesson plans, incorporating real-world experiences and diverse viewpoints. The FGDs highlighted the two-way nature of this exchange:

*"...This interaction allows for assessing student comprehension, enabling us to provide corrective feedback..." [PTeacher 6]*

The importance of flexibility in creating interactive activities was also emphasized, as one participant shared:

*“Flexibility is not just about teaching. It is also about creating interactive and engaging learning experiences to keep students motivated and actively involved in the learning process. By being flexible, you can adopt and incorporate multimedia and interactive activities. Some students may be more engaged with presentations that prioritize graphics, while others may prefer music or puzzles. The key is to offer diverse activities that cater to different learning styles.” [PTeacher 7]*

Furthermore, the online platform facilitated rich dialogue and knowledge sharing among all participants. Interviews provided deeper insights into how participants leveraged these tools. Participants shared:

*“...when I was teaching a basic topic like animals, I wanted to find a way to hook my students. I used a picture of a chicken's body but covered the head and replaced it with a dog's head. I then asked the students, "What is this?" They confidently answered, "A chicken, teacher!" However, when I revealed the next slide, it was actually a dog! This unexpected twist made the lesson more memorable for them.” [PTeacher 1]*

*“...Tools that facilitate simultaneous activity are the most effective. For example, the tool could provide a real-time activity that students can answer together.” [PTeacher 11]*

This collaborative spirit fostered a community of innovation. PTs benefited from shared ideas and enhanced their presentations with interactive elements. As reflected in the participants' journals:

*“...with their infectious enthusiasm, (students) became my guides on this cultural expedition. They introduced me to the delectable flavors of Tom Yum soup through pictures and stories, the intricate beauty of Wat Arun temple*

*through virtual tours, and the rhythmic beats of Thai music through shared videos. Each online session became a cultural treasure hunt, where we unearthed the hidden gems of our respective worlds.” [PTeacher 5]*

*“...To keep things engaging, I used a "spin the wheel" app to select students for participation in activities randomly. This element of surprise motivated them to participate actively. The activities involved pictures and scripts they could read and discuss.” [PTeacher 7]*

**4.1.2.2. Promoting Active Learning.** The FGD reflections highlight how the online platform transcends traditional approaches, fostering a dynamic teaching-learning process rich in information exchange. Participants emphasized their strategies for overcoming language barriers and promoting active participation. Participants shared:

*“... It is also important to be open to communication and motivate students even when they are struggling.” [PTeacher 7]*

*“Even with a language barrier, students try to understand the lesson with the teacher's help...When students struggle to express themselves due to shyness or lack of understanding, the teacher can guide them to articulate their ideas.” [PTeacher 8]*

*“I encourage them to share their experiences in class, and then I use those experiences to deepen the lesson content.” [PTeacher 9]*

The interview data highlighted the power of collaboration in overcoming the physical distance between participants and their peers. This was evident in how participants worked together to achieve this outcome, as they shared:

*“I discovered the word wall through P4. Since I used to make my own games, lessons, and activities, I was interested in learning how to use a word wall effectively, including what content to include and how to execute it. P4 showed me the website and explained its purpose.” [PTeacher 1]*

*“During lessons, using interactive websites like wordwall.net, quizzes, or games can be very helpful. I often research on YouTube for lesson ideas, depending on what my teammates share. If I am unsure about using a website, I will definitely research it.” [PTeacher 4]*

This collaborative spirit extended beyond communication. Participants highlighted the importance of catering to diverse learning styles. They shared clear instructions and visually appealing materials, which were instrumental in achieving this. Additionally, in-depth interviews revealed valuable tools and resources that further facilitated a richer knowledge exchange.

*“Additionally, hyperlinks often have pictures next to them. Students answer by clicking on faces, and the one with the highest score gets bonus points. Since we cannot give tangible rewards, of course....” [PTeacher 1]*

*“We follow a guide of topics. Within these topics, we create lesson plans that integrate the use of PowerPoint presentations for online teaching.” [PTeacher 8]*

*“When presenting lessons, we use Canva for lesson preparation and YouTube for video resources. Google is still very useful for information and resources. Google Meet is used for sharing and presentations. For communication, we needed another social media app besides Messenger, so we used Line App.” [PTeacher 11]*

The online practice teaching experience, as reflected in the journal entries, fostered active learning through a focus on information exchange, even when faced with challenges. This transformed the online classroom from a teacher-centered environment into a "vibrant hub of learning and exploration", with students actively participating in cultural exchange. Evidence showcasing how students were not passive recipients of information but actively engaged in the learning process is evident in the journal entries. Some of them were:

*"...the language barrier presented a significant hurdle, requiring constant translation to ensure comprehension" [PTeacher 1]*

*"My online classroom, once a hesitant first step into uncharted territory, has become a vibrant hub of learning and exploration." [PTeacher 4]*

*"...My experience has shown that establishing clear communication channels, incorporating interactive methods, and being culturally sensitive are key to a successful and enriching teaching experience. With a supportive and inclusive approach, Thai students often prove to be responsive, respectful, and eager to learn, making them a truly rewarding group to teach." [PTeacher 2]*

**4.1.2.3. Valuable Feedback from Mentors.** FGD reflections emphasized the importance of the online environment for fostering feedback loops for continuous improvement. This exchange between their mentors played a key role in refining teaching strategies. A participant described this process:

*"...The exchange of feedback, including accumulated insights, shared ideas, and observations from activities, allows me to refine my teaching strategies. By incorporating this feedback, I can continuously improve the lesson flow and address previously identified areas for improvement. The feedback loop*

*ensures that I constantly refine my approach, minimizing the need for repetition due to past shortcomings...” [PTeacher 5]*

Furthermore, interview data revealed valuable insights provided by CTs. In addition to verbal feedback, nonverbal cues such as smiles, nods, and virtual applause offered valuable validation of performances. Participants shared their observations about this:

*“...They (CT) give thumbs up and even verbally acknowledge your teaching with phrases like "very good" and "good job, teacher." Receiving positive feedback like this is very fulfilling.” [PTeacher 8]*

*“The feedback we received most often focused on creativity, but not to brag, they also mentioned our energy while teaching and the relationships we built with the students.” [PTeacher 11]*

Generally, CTs provided insightful mentorship, feedback loops facilitated continuous improvement, and student engagement served as positive reinforcement, all contributing to a richer online teaching experience. As evidenced by journal entries, CTs provided valuable insights on lesson delivery, student participation, and teaching strategies. One participant shared:

*“...Thai cooperating teachers consistently demonstrate a collaborative and supportive approach to education. They value teamwork and recognize the importance of fostering a positive learning environment for all students. I have witnessed firsthand how Thai educators actively share ideas, resources, and teaching strategies with colleagues to continuously improve the overall educational experience.” [PTeacher 2]*

This "open exchange" fostered mentorship, enabling participants to refine their teaching under the guidance of experienced educators. Participants described how

student challenges prompted a shift from a one-size-fits-all approach to more context-specific instruction. They wrote:

*“the demo lesson sessions provided invaluable feedback and insights tailored to Thai learners. My cooperating teacher's guidance not only expanded my repertoire of teaching tools but also instilled a deeper understanding of the nuances of online instruction in the Thai context.” [PTeacher 4]*

*“After teaching, I received valuable feedback from peers, supervising teachers, and cooperating teachers. They encouraged me to practice being more confident and less nervous before starting class and to utilize a more interactive approach with PowerPoint presentations to encourage student participation.” [PTeacher 8]*

**4.1.2.4. Self-Reflection in Action.** Participants highlighted the online practice ground's role in fostering continuous improvement through self-reflection. They gained insights into their teaching effectiveness by analyzing past lessons, experiences, comments, classroom strategies, and student engagement. This allowed PTs to identify areas for growth, experiment with new approaches, and refine their teaching style.

The FGD reflections underscored the valuable process of self-reflection among PTs regarding knowledge exchange. They highlighted how identifying challenges and adapting to student differences were crucial aspects of this process. Participants expounded:

*“While I anticipated challenges due to the students' limited English proficiency, my ultimate goal remained to teach them and facilitate their learning effectively, even if communication was not always smooth.” [PTeacher 5]*

*“My passion lies in teaching, and I also possess strong technical skills, particularly in areas like technology, the internet, and computers. This combination makes Online Practice Teaching a fantastic opportunity for me.”*  
[PTeacher 3]

*“This realization helped me become more adaptable. I learned to adjust my approach to accommodate these cultural differences. The international nature of this program brings a refreshing element, but it also necessitates adapting teaching strategies to cater to the diverse needs of the students.”* [PTeacher 12]

The FGD findings are supported by interview data that provide concrete examples of how teachers in the program are actively engaged in knowledge exchange. They are learning new techniques, developing new skills, and adapting their teaching based on their experiences, all of which contribute to a more effective exchange of knowledge with their students. Participants shared:

*“...Since I used to make my own games, lessons, and activities, I was interested in learning how to use a word wall effectively, including what content to include and how to execute it... can create something more engaging and culturally relevant, making learning feel like play.* [PTeacher 1]

*“I have definitely improved and even found inspiration in teaching. I am improving at creating PowerPoint presentations and am proud of my ability to develop backup plans (Plan A, B, and C) using Wordwall. It is crucial to be prepared for anything...”* [PTeacher 4]

These data from FGD and interviews, triangulated with journal entries, painted a picture of PTs who are committed to creating engaging learning experiences for their students. Participants reflected in their journals:

*“They encouraged me to ‘practice being more confident and less nervous before starting class’ and to ‘utilize a more interactive approach with PowerPoint presentations’ to encourage student participation.” [PTeacher 8]*

*“I am always learning and growing as a teacher! After each online session, I reflect on the lesson and gather feedback from my students. This feedback loop allows me to continuously improve my teaching methods and create even better learning experiences.” [PTeacher 9]*

Building on the benefits, the online practice teaching program actively fostered a dynamic environment for knowledge exchange. Collaboration, feedback, and self-reflection empowered PTs to refine their teaching skills and create more engaging learning experiences for their students. This collaborative approach transcended the limitations of physical distance, fostering a richer understanding of diverse cultures and teaching methodologies.

#### **4.1.3. Promoting Social Engagement**

A third key theme emerged, highlighting the tools' potential to bridge physical distance, creating positive and engaging learning experiences for students. Furthermore, this theme expanded to encompass sub-themes, offering a more nuanced understanding of the social landscape within online practice teaching.

**4.1.3.1. Socializing with Students.** This sub-theme encompasses how PTs fostered social engagement with students. While online tools offered innovative avenues for learning, these also posed unique challenges in building social connections. Generally, the data revealed various examples of how these tools were harnessed to create a positive and engaging learning experience for PTs.

FGD reflections provided color to the story, particularly on the participants' insights into the emotional impact of these interactions and how they influenced the PTs' overall online teaching experience. In the initial stages of the program, participants grappled with communication complexities in the virtual environment. Anxieties arose regarding rapport-building, fostering a positive learning atmosphere, and language barriers. Participants expressed these concerns, noting,

*"I initially had high expectations for the program. However, the language barrier presented a significant challenge. Their way of speaking differed from what I was accustomed to, making it difficult to understand them sometimes..."*

*[PTeacher 6]*

*"Initially, I was worried that online teaching would be difficult and that the students would not be engaged..." [PTeacher 12]*

Despite these obstacles, participants prioritized student engagement, employing creative solutions like gestures, modified presentations, and interactive activities. They also established clear classroom management strategies. This focus on student engagement even fostered a spirit of open-mindedness and learning. PTeacher 9 highlighted the importance of keeping students engaged, especially in an online environment:

*"Similarly, teaching children in online classes requires confidence, even though it differs from face-to-face interaction. Unlike a physical classroom, it can be challenging to gauge online student participation. Therefore, my goal is to keep them engaged in discussions. This is why we strive to create captivating PowerPoint presentations that grab the attention of our Thai students."*

*[PTeacher 9]*

*“Online practice teaching encouraged the practicing teachers to be more open-minded to different situations. You can also learn new approaches from your students. By listening to what they share, you can gain insights and expand your understanding of their teaching methods...” [PTeacher 9]*

Moreover, keeping their learners engaged was paramount. Participants shared their practices on leveraging interactive tools and activities, making their lessons dynamic and stimulating. These practices were some of the creative solutions that emerged throughout the program. Additionally, some of them employed gestures and modified their presentations in small phrases to bridge communication gaps. They shared specific examples of these techniques:

*“...We established a clear classroom management standard: students must mute their microphones when the teacher is speaking. This approach has been very effective. When I say, 'Do number 4,' the students follow the instructions.” [PTeacher 2]*

*“...To encourage active participation, you can use gestures like thumbs up... At the same time, you can provide feedback with phrases like "good job" or "very good," praising their small achievements or correct answers.” [PTeacher 7]*

Participants echoed the importance of social interaction and cultural sensitivity in online learning environments. Their comments mirrored the concept of "building rapport" and highlighted the need for acknowledging contributions and motivation and respecting diverse backgrounds. These factors ultimately led to a more supportive and enriching learning experience, fostering a stronger sense of belonging among PTs. A participant elaborated on this point:

*“...It is important to have a good rapport with your students. Without this rapport, even if the children have questions, they might be too shy to ask you. This can happen because they have not built a strong connection with you yet...” [PTeacher 9]*

Another participant connected rapport-building with effective classroom management:

*“...building rapport with students is crucial. Additionally, maintaining classroom discipline and organization is essential. These factors contribute to effective teaching...” [PTeacher 1]*

The participants' core concern was providing opportunities for learners to speak and practice. Their reflections emphasized the importance of adapting teaching methods to cater to individual student needs and learning styles. The participants incorporated interactive activities, utilized breakout room discussions, and fostered peer feedback to address this concern. They created a safe and inclusive environment with clear communication protocols, encouraging questions, and effective questioning techniques. Based on their assessment, this fostered a more interactive online learning experience. Participants described their approach:

*“...Wordwall offers a variety of features, including surprise boxes, cards, and pop-up balloons. You can even conduct quiz bees within the platform! It is similar to Quizizz, but Quizizz requires a high bandwidth connection and can struggle with limited data.” [PTeacher 4]*

*“...I allow all my students to answer my questions. Since my classes typically have only five students, I have them speak individually to ensure everyone gets a chance. Afterward, I provide corrective feedback, suggesting improvements to their sentence structure.” [PTeacher 10]*

*“By engaging in social interactions during online practice teaching, you can build confidence for face-to-face situations and online communication. Even if you are not used to speaking online and cannot see your students directly, participating shows that you can be effective even in an online teaching environment” [PTeacher 12]*

The online teaching experience transcended initial challenges, revealing heartwarming moments of connection between PTs and students. These moments prompted PTs to document heartwarming interactions in their journals, highlighting their positive impact on their students. Participants wrote:

*“...I allowed one of my engaged students to translate my questions to her classmates, who responded in English. That warmed my heart since I could see first-hand how hungry they are to learn the English language and how hard they work to participate in my class.” [PTeacher 3]*

Data from journals also revealed activities that PTs believed fostered their sense of community. These simple moments, resonating deeply with the PTs solidified the importance of social connection in online teaching. One participant wrote:

*“...Witnessing their progress was truly heartwarming. Some students were naturally outgoing, showering me with thumbs up and enthusiastic claps for even the smallest triumphs. Others, a little more reserved, bloomed with quiet confidence. It was a beautiful testament to the power of this online learning environment” [PTeacher 7]*

**4.1.3.2. Socialization with Mentors.** Building upon the previous discussion of social engagement, this subtheme delves into the critical role of mentors in fostering

virtual connections among PTs. The theme's facets further illuminate the strategies and tools employed to achieve successful social interaction in this online space.

As previously discussed, participants described complex challenges and opportunities within their online mentorship relationships. This ongoing support network proved invaluable. Beyond directly fostering socialization, supervisors also played a crucial role in communication and feedback. They bridged the gap between student teachers and CTs from different subject areas, ensuring clear communication and consistent expectations for all involved. As a key part of this support system, one participant explained,

*"We have a cooperating teacher who observes our online classes. Our cooperating school also has subject-specific supervisors who collaborate with the cooperating teachers. After the cooperating teacher provides suggestions, the supervisors might offer additional feedback on improving our teaching."*  
[PTeacher 2]

The collaboration went beyond the curriculum. The participants also shared that they have adjusted plans based on the mentor's feedback, and CTs offered support beyond lesson planning. Interaction varied by CT engagement, highlighting the need for clear communication. The program fostered connections – some built online friendships, others met socially – proving lasting bonds could form despite the distance. "Demonstrating the ongoing guidance provided by CTs," a participant described,

*"My cooperating teacher also observes our online classes. Right after each class, they send us a white form with our grade, feedback, and suggestions for improving our online teaching skills."* [PTeacher 2]

Interviews also provided specific examples of how CTs assisted participants in overcoming communication challenges. Participants shared:

*“During this conversation, the CT offered feedback and expressed some concerns about the students. The CT even asked me, ‘Where are the students?’ In this case, it seemed like the CT was checking in on the class at that specific time rather than attending the entire session...” [PTeacher 4]*

*“On the first day, we face a challenge with the language barrier. Sometimes, it can be difficult to understand their basic English. To address this, we have a teacher in the back who also guides them. As we continue teaching, we all get accustomed to each other’s language use.” [PTeacher 8]*

The success of online practice teaching was driven by a culture that encouraged open communication between PTs and their mentors. The initial observation of PTs’ teaching styles provided an avenue to open dialogue about lesson planning, constructive feedback, and additional sharing from the mentors’ experience. Supervisors have been open to offering feedback alongside CTs. Regular meetings with them also fostered a supportive community for PTs to connect, discuss their strengths and areas for growth, challenges faced, and refine their online teaching skills. A participant shared a sample of feedback in the interview:

*“According to my cooperating teachers (CTs), they enjoy my teaching style, and it seems the students also understand the lessons. Having five CTs to learn from is great, but unfortunately, not all of them provide detailed feedback.”*  
*[PTeacher 4]*

Further emphasizing the importance of clear communication, another participant highlighted their routine check-ins with their CTs. Participant mentioned:

*“...I always check with my current CT before proceeding. For example, when I was working with a CT from Laguna, he emphasized the importance of reviewing lesson plans before execution....” [PTeacher 1]*

Messaging apps like Line and Messenger kept communication flowing with quick updates, document sharing, and casual chats. This technology-fueled interaction built a sense of community and collaboration despite the distance. Interestingly, the affordances of these tools were shared in the interview. One participant mentioned:

*“Attendance is tracked, and we report it to our cooperating teachers (CTs) through a Google Sheet...” [PTeacher 4]*

More of these reflections are found in the PTs’ submitted journals. They highlighted the invaluable support provided by their CTs and supervisors. For example, one wrote:

*“My first cooperating teacher welcomed me warmly and offered her unwavering support. Her extensive experience teaching Thai students online was invaluable. She patiently guided me through the intricacies of the Thai education system, cultural nuances, and teaching strategies specific to my students' needs...making me feel like a valued member of the Thailand teaching team.” [PTeacher 9]*

The narratives of the PTs also highlighted the importance of emotional support, advice, and teamwork in promoting a favorable online mentoring experience. Furthermore, the participants appreciated the chance to establish a personal connection with their mentors. According to one participant's written response:

*“We regularly connect through video calls to share experiences, exchange teaching tips, and provide emotional support when needed. Being part of this supportive community has enhanced my teaching skills and created a sense*

*of belonging in an otherwise solitary profession. Through our discussions and collaborations, I have learned new teaching strategies, discovered innovative online tools, and gained valuable insights into cultural nuances that impact my students' learning.” [PTeacher 9]*

Participants described how their CTs created a supportive environment that empowered them to develop their teaching skills and build confidence. The importance of a supportive orientation process was also emphasized. One participant noted,

*“Our orientation...was very engaging. Unlike typical orientations where you sit and listen to policies, she allowed us to ask questions after presenting the necessary information. It felt like an exchange of ideas on navigating our online teaching journey with Thai students.” [PTeacher 7]*

This mentorship extended beyond the online realm, with some PTs participating in culminating face-to-face activities. These gatherings brought mentors and PTs together, nurturing deeper connections. A participant wrote:

*“...along with our fellow interns, had the opportunity to celebrate a Thanksgiving event with our co-teachers from the Thailand family. We were also joined by our cooperating teachers, chairman, and dean, who have provided us with unwavering support since the beginning of this journey. This wonderful get-together was generously sponsored by our partner schools in Thailand.” [PTeacher 10]*

**4.1.3.3. Social Experiences with Co-PTs and Other Stakeholders.** The online practice teaching environment offered a unique landscape for PTs' professional growth. For PTs, the social connections they made with other PTs and others involved in the learning process played a big role in their success. This sub-theme further

explored the positive aspects of online socialization, drawing on tools and resources used to illustrate the heartwarming and enriching experiences.

FGD data revealed that the online platforms became centers for PT collaboration. Participants fostered a dynamic exchange of ideas by sharing their resources, co-creating lessons, and troubleshooting together with their colleagues. This collaborative environment led to improved teaching practices and a richer learning experience for all. Participants shared:

*“...I discovered the word wall through PTeacher 4. Since I used to make my own games, lessons, and activities, I was interested in learning how to use a word wall effectively, including what content to include and how to execute it. P4 showed me the website and explained its purpose...” [PTeacher 1]*

*“...When I discussed animals, my partner borrowed the slides with motivational content. Then, if we have a PowerPoint available on the same topic, we can lend it to each other.” [PTeacher 1]*

*“...social interaction with other practice teachers is crucial for effective teaching. Through these interactions, you can gauge their understanding of the material. By soliciting feedback, you can determine if your lessons were clear and identify areas for improvement...” [PTeacher 5]*

Furthermore, PTs fostered a collaborative spirit by assisting peers facing internet connectivity or technical issues. FGD data revealed that this immediate support exemplified their commitment to supporting one another's success. Some participants mentioned:

*“There are times when our partner teachers lose their Wi-Fi connection and have to move to a location with better internet access, such as a neighbor's*

*house. Whoever is available nearby will help them out by sharing their internet connection.” [PTeacher 1]*

*“...During one instance, I encountered a technical problem that was quite stressful. I was not sure which buttons to press and felt overwhelmed. At the time, I was also asking for assistance from a colleague (PTeacher 7) who was teaching nearby...” [PTeacher 8]*

While the study identified several benefits of the online teacher training platform, it also revealed social limitations experienced by stakeholders. It highlighted other important aspects of online teaching that require further consideration. Based on the narratives in the interviews, the participants focused heavily on communication between the co-teachers. There was minimal interaction with parents and school administrators. The practice teaching also focused on synchronous activities, limiting students' use of asynchronous learning materials or tasks. Participants detailed these in the interview, informing:

*“There is no feedback from the parents. However, my CT told me something: 'Even if the student is wrong, correct it anyway.' Apparently, that is what the parents expect. If something is wrong, they will ask questions. Of course, we are not their permanent teachers, so we go with the flow... Additionally, my cooperating teacher has not mentioned any instances of parental participation.” [PTeacher 5]*

*“...Asynchronous activities like assignments are more suitable when time is limited. However, our cooperating teachers discouraged giving assignments.” [PTeacher 11]*

Despite limitations in stakeholder engagement and missed opportunities for exploring alternative teaching approaches, the most prominent experiences shared in PTs' journals were the development of a strong sense of community among participants and the valuable interactions with stakeholders. These bonds were strengthened through online meetings. Participants wrote in their journals:

*“Building a strong classroom community is another valuable lesson. Encouraging discussions, group activities, and peer feedback fosters a positive learning environment where everyone feels comfortable participating.” [PTeacher 4]*

*“...The camaraderie and encouragement from this group have been invaluable in keeping me motivated and inspired to continue making a positive impact.” [PTeacher 9]*

In addition, meeting their cooperating school administrator and colleagues in person highlighted the potential for online connections to blossom into real-life friendships.

*“...we finally received our official certification for our virtual internship in Thailand! Guests from our partner schools in Thailand arrived last week, and now we had the chance to meet them in person. The head of the cooperating school even mentioned that our batch was exceptional. She had the opportunity to meet us before we started the internship, and now, she is awarding us with our certificates. One of our Thai cooperating teachers also came to visit us. It was wonderful to see her in person finally! During classes, she rarely opened her camera, so this was a special treat. She is both very pretty and kind.” [PTeacher 10]*

## 4.2. Challenges and Coping Mechanism

Connective pedagogies, which emphasize building learning networks and fostering collaboration, are becoming increasingly important in online education. However, for PTs in this environment, fostering connections can be challenging. This study revealed that PTs face various communication obstacles within these online learning networks. The following table summarizes these key challenges and the coping mechanisms they used to address them.

**Figure 3**

*Communication challenges and coping mechanisms*



### 4.2.1. Communication Challenges

The study found that English language proficiency varies widely among international students, which posed challenges to their online practice teaching. Some PTs reported difficulties with communication, including comprehending basic commands, understanding diverse accents, and addressing technical issues affecting

audio quality. This online practice teaching environment presented unique challenges, with communication and interaction emerging as the biggest hurdles. This theme delves into the complexities of language barriers and explores the subthemes of reduced participation. This analysis explores these complexities, highlighting how language barriers significantly hinder effective online teaching.

**4.2.1.1. Language Barriers.** Online language learning offered unique opportunities but faced challenges due to student diversity. However, navigating the diverse backgrounds of learners can bring its own set of challenges. FGD data revealed that the common challenge was students' preference for their native languages, which required instructors to adapt their methods. As one participant shared in the FGD:

*“...a challenge with pronunciation, especially since we are dealing with Thai, a language unfamiliar to us. While we try our best, it can be difficult to know if we pronounce things correctly.” [PTeacher 1]*

Beyond accents and pronunciation, limited vocabulary also hindered students' participation. Interview data, for example, revealed this experience:

*“The biggest challenge was the language barrier. They spoke English fluently, but I needed to use even simpler language for better comprehension.” [PTeacher 11]*

The challenge of language barriers was consistently highlighted in participant journals. One participant wrote the challenge of catering to different learning paces in the journal entry:

*“The first challenge I encountered in teaching them was the language barrier. Since some are beginners, they do not even understand simple English*

*words...their native language might affect how they speak English. I asked them to repeat the word or sentence so I could be able to understand. Honestly, it was like a mini-language detective game, and we all learned a lot from each other's accents!" [PTeacher 6]*

This reflection highlights the unique communication barriers arising from varying English proficiency levels. Another participant further emphasized this point by describing their class mixture as having:

*"...a mix of talkative and quiet students. While some students grasp concepts quickly, others require more assistance." [PTeacher 12]*

Although participant journals often expressed educators' optimistic mindset and will in overcoming language obstacles, the difficulty continued to exist in online language learning contexts. For example, one participant expressed the struggle:

*"Teaching students who do not speak English as their first language can be daunting. The fear of not being understood can lead to nervousness. However, a burning desire to make a difference fueled my determination to embark on this adventure." [PTeacher 8]*

**4.2.1.2. Reduced Participation.** Online classrooms for international learners require more than translation. Language barriers have created a gap between teaching and understanding of the lessons delivered by PTs. This further hindered participation and learning. The silence in the virtual classroom, masked by students' shyness, struggles with the English language, and confusion in the instruction, made it more difficult for the PTs. FGD data elucidates this concern. For example, one participant mentioned:

*“Some students participated regularly, while others were only present occasionally. This inconsistency was a major challenge for me.” [PTeacher 1]*

This attendance of the learners had also become a signal to the PTs that there had been problems with their communications. One of the participants shared:

*“My class size typically ranges from 10 to 15 students, with occasional sessions having no attendees. In one instance, a student was present in the classroom, and it appeared there was a miscommunication.” [PTeacher 2]*

Students' participation in the class was also a significant challenge that emerged from the interview data. Participants reported difficulties in communication due to several factors. Some learners turned off their cameras during classes, while others, especially those studying at home, were less engaged. As PTs shared:

*“Online platform interaction can be limited. Students often turn off their cameras, even when prompted to turn them on.” [PTeacher 4]*

*“...those from the first batch who were learning from home seemed to struggle with online learning and were sometimes reprimanded for not being engaged.” [PTeacher 11]*

This challenge is linked to the difficulties most PTs described experiencing with their students. They characterized the experience as a 'not-so-smooth sail' as the participants expressed their feelings in their journals. They wrote:

*“The initial awkward silences, the hesitant clicks of the microphone, a student's shy smile as they fumbled with their webcam – these were testaments to the unique obstacles of remote learning.” [PTeacher 4]*

*“To be fully honest, teaching in Thailand was not a smooth sail. There are moments wherein you will feel discouraged. However, along the way, it is with the process of teaching that you will learn.” [PTeacher 11]*

Another echoed this sentiment, highlighting how complex explanations can leave students lost and their shyness hindered their participation:

*"The students' shyness, evident in their barely audible voices, was both endearing and a missed opportunity" [PTeacher 1]*

*"I observed that the simpler the activities, the higher their level of engagement.*

*This stemmed from the language barrier; complex explanations would leave them confused" [PTeacher 7]*

These reflections painted a picture of the challenges faced by both students and teachers. However, amidst the reduced participation in the class, there were also glimmers of success. The succeeding sections explored the successful strategies used by PTs to overcome communication challenges in online classrooms with international learners.

#### **4.2.2. Bridging the Communication Gap**

This theme explored PTs' successful strategies to overcome online communication challenges with international learners. These strategies included clear language, engaging visuals, interactive activities, cultural integration, and utilizing online collaboration platforms. The following sections delved deeper into each facet, highlighting how each contributed to a more inclusive and effective learning environment.

**4.2.2.1. Maintaining Clear and Concise Communication.** The success of online language learning hinges on this crucial element. The FGD revealed how fostering collaboration techniques benefited PT and their student's learning and social

interaction. Participants detailed how prompting students and employing teaching strategies helped create a supportive environment:

*“I actively promote collaboration among my students to foster stronger relationships and enhance their learning experience. For instance, if a student struggles to answer a question, I might encourage their classmates with a prompt like, “Can you help your friend out...” [PTeacher 5]*

*“In our class, we use a method called “call a friend” to support students who are struggling to speak. If a student finds it difficult to express themselves, they can “call a friend” for translation assistance. However, this is only encouraged when absolutely necessary to facilitate collaboration. The goal is for students to collaborate to formulate a response or answer a question.” [PTeacher 10]*

Implementing these strategies led to increased peer support, boosted student confidence, and facilitated effective learning from each other. Furthermore, the role of cooperating teachers in ensuring clear communication was further emphasized. Participant revealed:

*“Fortunately, our CTs intervene when necessary. They will stop us, provide feedback on our pronunciation, and then we can continue together.” [PTeacher 1]*

On the other hand, interview data offered insights into individual approaches. Participants also emphasized the importance of encouraging students to overcome communication apprehension. They also shared how adapting to students' needs is crucial, for example, they revealed:

*“I have learned to adjust and adapt my approach to their needs. Thankfully, despite their varying backgrounds, their English level is still elementary, which aligns somewhat with my teaching experience.” [PTeacher 4]*

*“To our teachers, we often hide our discomfort with the language. We try to act comfortable, but I encourage my students to be more open. I tell them, ‘You can use gestures or ask your teacher at the back for help. You can ask her how to say something.’ [PTeacher 8]*

When participants created a safe space for questions and normalized discomfort through their dedication, their students felt empowered to actively participated in lessons. PTs could share their experiences and the creative strategies they used to ensure that all of their students, regardless of vocabulary level, had well-grasped in the material they were sharing. A participant emphasizes the importance of breaking down instructions and announcements in her journal entry:

*“Effective communication is essential in online education. I have found that using clear and concise language in instructions and announcements is essential. Repeating important points and offering multiple ways for students to ask questions like discussion boards, Line app, chatboxes, etc. also helps ensure everyone is on the same page.” [PTeacher 6]*

This approach ensures students have various avenues to seek clarification and reinforces key concepts. Another describes how resourcefulness overcomes language barriers:

*“Despite the language barrier, I truly enjoyed my time with my students... I used body language and gestures to convey my meaning. Additionally, I incorporated Thai words into my slides.” [PTeacher 7]*

**4.2.2.2. Using Visual Aids and Interactive Activities.** Online language learning thrives on PTs' creativity, especially when it comes to overcoming language barriers. PTs share their experiences using visuals and interactive activities to keep students engaged and learning. The FGD data revealed the effectiveness of combining verbal and nonverbal cues to meet the needs of their diverse learners. For example, participants shared:

*"I also employ non-verbal cues to reinforce my instruction. For instance, when I ask, "Can you hear me?" (Covering the ears and demonstrating the action), may benefit from this visual representation to confirm understanding. Combining clear explanations with gestures allows students to connect words with actions, solidifying their comprehension." [PTeacher 4]*

Through their reflections, PTs highlighted how employing multi-sensory learning experiences, such as incorporating gestures, images, and activities, promoted deeper understanding and engagement for all their students. One participant shared:

*"I have found instructional materials to be particularly effective. By displaying them on screen, I can cater to students who struggle to comprehend spoken English. These visual aids spark curiosity and enhance engagement. In addition to verbal communication" (FGD2-P4-D2-1)*

The interview data further revealed how participants managed participation challenges by leveraging online resources. They developed troubleshooting skills and creatively utilized the features of their learning tools. As they shared:

*"The word wall is fantastic because it is automated! Just type the topic, and students can choose how they interact with the content. It is even effective in online learning environments like Google Meet, even when used alongside the*

*chat box, to get students' attention. The power of visual aids is undeniable.”*

*[PTeacher 1]*

*“There are readily available online resources to troubleshoot almost any problem you encounter. For example, if student interaction in class is low, a quick web search can provide you with suggestions and solutions.” [PTeacher 4]*

These strategies were also highlighted in participants' journals. They emphasized how visuals effectively bridged vocabulary gaps, enabling students to connect words with their meanings. Additionally, participants described how online activities and visuals fostered engagement despite physical distance. Their innovative teaching discoveries were written in their journals. Some of them were:

*“Breaking down concepts, using visuals, and giving them space to ask questions made all the difference.” [PTeacher 6]*

*“The distance and potential for technical difficulties demanded creativity and adaptability on both my end and theirs. I devised engaging online activities that incorporated visuals and interactive elements to bridge the gap. It was truly heartwarming to see them actively participating, overcoming technical hurdles, and embracing the challenge of learning a new language in this virtual environment!” [PTeacher 12]*

**4.2.2.3. Contextualizing Instruction.** Recognizing that communication goes beyond mere words, participants embraced contextualization as a key strategy to create a more inclusive and effective learning environment. Through the FGDs, participants could describe how tailoring lessons to students' experiences benefits them. For example, they shared:

*“My strategy involves incorporating cultural integration and contextualization. Cultural integration keeps students engaged and entertained by incorporating interesting facts about Filipino culture... This connection between cultures and factual information makes the class more enjoyable and effective. Contextualization is also important. By tailoring the lesson to their experiences, students can easily relate to and understand the material clearly.” [PTeacher 11]*

Consequently, this approach enabled students to connect learning materials to their personal experiences, fostering deeper comprehension and relevance. FGD reflections further emphasized the importance of engaging content:

*“...We held meetings to discuss the design, including the GIFs we would use to make it colorful, appealing, and so on. We also researched the content, exploring different games, presentation styles, and engaging applications to keep the students interested...” [PTeacher 7]*

Interview data showcased how PTs adapt their teaching style to cater to individual needs. This highlighted the importance of flexibility and further elucidated the adapting teaching methods employed to the specific needs and abilities of the students. One participant shared:

*“While their English is still at an elementary level, I ensured my lessons matched their current abilities. It simply required a different approach, as my primary school background initially led me towards a more 'childish' style.” [PTeacher 4]*

Weaving these cultural elements, PTs described in their journals the strategies that made the learning experience more engaging and fostered a sense of belonging for students. They wrote:

*“It was a challenge met with creativity, and the rewards were enriched virtual interactions, cultural exchange, and the collective joy of seeing knowledge transcend traditional classroom limitations.” [PTeacher 2]*

*“...it was about embracing cross-cultural communication in the digital space. It pushed me to adapt and grow as an educator.” [PTeacher 7]*

**4.2.2.4. Utilizing Online Communication Platforms.** PTs leveraged online communication platforms to foster collaboration to address communication problems and encourage their learners to participate in the online class. This approach yielded several benefits, as shared in the FGD reflections. Participants mentioned:

*“I promote collaboration and knowledge sharing by assigning roles and responsibilities in group tasks, ensuring active participation and accountability. Additionally, I encourage peer-to-peer learning by having students teach segments of the course or lead discussions.” [PTeacher 3]*

*“I created an interactive PowerPoint presentation for my online teaching lessons. Since students have a limited understanding of basic English, they should refer back to the presentations for reference. The key is to design creative and interactive presentations to keep students engaged. Another strategy I used was incorporating gestures, as some students may only understand very basic words like “yes” and “no.” By acting out concepts, I could provide additional support for understanding.” [PTeacher 8]*

The interview further brought out and reinforced the importance of creating a safe space for communication:

*“I encourage my students to be more open. I tell them, ‘You can use gestures or ask your teacher at the back for help. You can ask her how to say*

*something. They can also collaborate with classmates or friends who can help them. I tell them, 'You can call on a friend or classmate for help.'*" [PTeacher 8]

The reflections revealed how these online communication platforms empowered their students who might have been hesitant to participate individually. PTs observed that their learners practiced English more confidently in this supportive environment, as classmates who might have hesitated to participate individually received peer support. Participants expound these in their journals, sharing:

*"Keeping students captivated through a screen requires constant innovation. I experimented with different online tools, incorporated breakout rooms for collaborative activities, and encouraged active participation through polls and quizzes. This continuous exploration of engaging methods became a core part of my online teaching practice."* [PTeacher 7]

Additionally, a sense of community emerged among participants, as evidenced by their journal entries. Participant shared:

*"One strategy that's proven effective is incorporating more collaborative activities. Using breakout rooms during online classes allows them to work together on group projects and case studies. This not only keeps them engaged but also fosters a sense of community and collaboration."* [PTeacher 4]

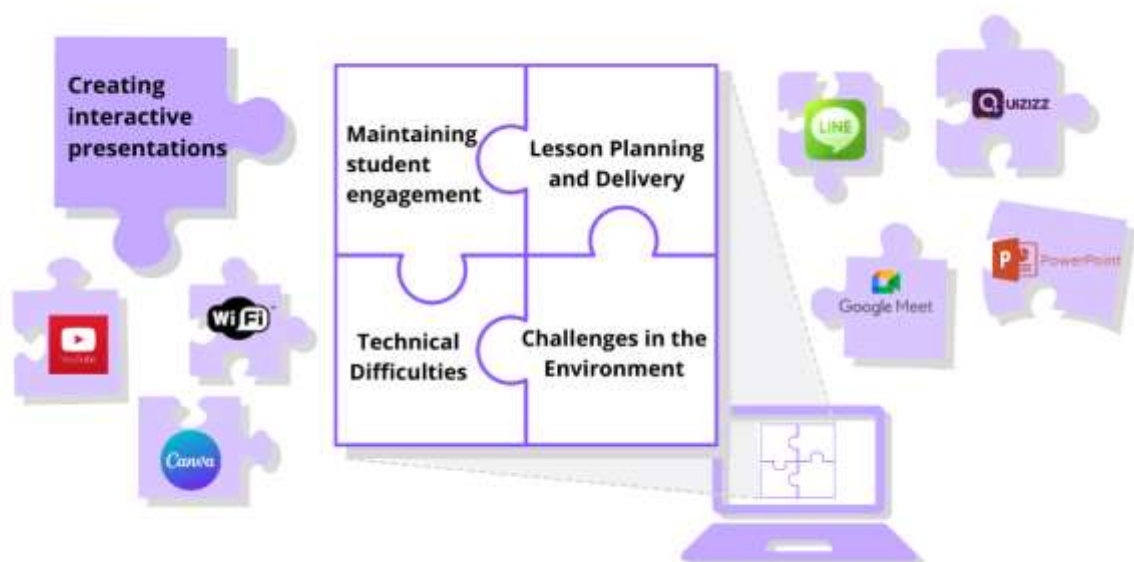
The next theme presented the challenges PTs face in online classrooms, often called the "instructional divide." This included challenges in adapting teaching methods, managing online environments, and maintaining their well-being.

### 4.2.3. Instructional Challenges

This section explores the instructional divide faced by PTs, a theme that arose from the challenges encountered during online practice teaching. The online learning environment created a physical distance between PTs and students. This necessitated PTs to develop new strategies to bridge this gap and foster engagement. These strategies encompassed adapting instructional methods to the online format, effectively managing online classroom dynamics, and even managing their emotional well-being to thrive in this unique learning space. Figure 4 visually represents instructional challenges as missing puzzle pieces and the corresponding coping mechanisms employed by PTs as the complementary pieces needed to complete the instructional puzzle. The subthemes in the next sections further describe this challenge.

**Figure 4**

*Instructional Challenges and Coping Mechanisms*



**4.2.3.1. Student Engagement Issue.** Maintaining student engagement in online language learning environments presents a unique challenge. FGD reflections revealed that the physical separation inherent in online learning made it difficult to gauge student comprehension and maintain a focused learning atmosphere. A participant illustrated this point by recounting a humorous experience that exemplified this challenge:

*“There was a funny incident where one student was already home, even cleaning, while we were still holding class. This happened because my class schedule overlapped with theirs, and it ended quite late at 5 pm.” [PTeacher 1]*

This incident highlighted the distractions PTs faced in this learning environment. FGD further emphasizes the challenge of inconsistent student participation:

*“Some students participated regularly, while others were only present occasionally. This inconsistency was a major challenge for me.” [PTeacher 1]*

Beyond the logistical challenges, the interview reflections of the participants further revealed the emotional toll that inconsistent engagement can take on educators. Participants described feeling discouraged and frustrated caused of student absences. They shared:

*“Student absences due to travel are also a challenge. Sometimes students request permission to leave early, citing trips back to their provinces, which can lead to class cancellations. This can be frustrating, especially after careful lesson preparation.” [PTeacher 4]*

*“Initially, we felt discouraged, not exactly frustrated, but perhaps a sense of regret. It was challenging at first. We questioned ourselves, 'Ma'am, is this*

*how it is? They are not very responsive.' I worried about my effectiveness as a teacher." [PTeacher 11]*

In addition to these challenges, participants consistently noted the limitations of video calls in fostering a dynamic learning environment. A participant emphasized the struggle to adapt teaching methods due to student diversity:

*"...The diversity of the students challenged me to adapt my teaching methods..." [PTeacher 1]*

This highlighted the difficulty felt by the participants in replicating the natural flow of conversation and building rapport that can occur in a physical classroom setting. To address this issue, they further emphasized this by describing the struggle to keep students engaged through a screen:

*"We all know the struggle of keeping students engaged through a computer screen. Lectures can feel one-sided, so I am experimenting with more interactive elements. Adding short videos, polls, and even online games can break things up and keep students actively participating. It is all about finding ways to make learning fun and memorable!" [PTeacher 6]*

**4.2.3.2. Lesson Planning Issues.** Challenges in lesson planning and its delivery also as a subtheme constituting the instructional divide. FGD reflections revealed that the online environment presented a unique hurdle in terms of replicating traditional classroom activities. To illustrate this point, a participant described a learning experience and highlighted the importance of tailoring assessment strategies to the specific online context and learning objectives:

*"... A key takeaway from our first group of students was that we initially strayed from the online speaking class format. The focus on multiple-choice questions*

*did not effectively assess their speaking skills. We adjusted our assessments for the final school to include speaking activities, which was the core objective of the online class. Speaking assessments towards the end of the second batch, which was the last cooperating school, but in the first cooperating school, we seem to have forgotten that the class is a 'speaking class' and we are more focused on the multiple choice and identification assessment."*

*[PTeacher 11]*

In addition to the challenges of adapting assessment methods, FGD data also revealed that scheduling conflicts significantly impacted PTs' lesson delivery. As one participant shared:

*"Every Wednesday, we have a class at the university, but after that, there is one subject we have to attend again." [PTeacher 2]*

These conflicting schedules necessitated patience and adaptability from PTs as they adjusted to shifting schedules. The concurrent enrollment in academic courses alongside practice teaching contributed to this challenge. Despite their efforts, PTs inevitably felt overwhelmed by the ongoing adjustments. Interview reflections revealed one participant's frustration:

*"Unfortunately, we could not attend many orientation sessions due to scheduling conflicts with our classes... Online teaching can be tiring at times. However, I remind myself that this experience is valuable preparation for my future career in education, especially considering the increasing importance of digital skills in today's world." [PTeacher 4]*

Beyond the challenges of time management and workload, interview reflection also showcased the need to adapt lesson plans and delivery styles based on student demographics. A participant who was experienced in primary education shared:

*"Since my training is in primary education, I had to adjust my teaching style a bit for teenagers... The coordinating teacher pointed out that I needed to raise the difficulty level to match the students' age." [PTeacher 4]*

While adapting to different age groups, PTs also faced the challenge of well-constructed plans. The online environment demanded an equal emphasis on adaptability and improvisation. Participant highlighted this need in their journal reflection, stating:

*"In online classes, designing suitable evaluations and providing timely feedback is essential. I...continue to explore different online assessment tools to make grading more efficient. There was a range of assessment tools, such as quizzes, assignments, and discussions, that can provide a thorough assessment of student learning..." [PTeacher 6]*

Despite the constant changes and unexpected challenges in lesson preparation and delivery, PTs demonstrated resilience and determination to complete their practice teaching successfully. As one participant reflected in their journal:

*"Recognizing the importance of flexibility in scheduling online sessions is crucial. I take time zone differences into account and strive to be accommodating. This ensures all students can participate without facing undue challenges." [PTeacher 2]*

Journal reflections further illustrated the challenges of waning engagement, frequent tardiness, and absences. One participant wrote:

*"...their engagement waned over time, with some students simply attending to mark their attendance and leaving shortly after...The frequent tardiness and absences were disheartening." [PTeacher 1]*

These experiences prompted PTs to reevaluate their online classroom management practices and explore new strategies for fostering a more focused and productive learning environment.

**4.2.3.3. Technical Issues.** This section clearly shows the challenges posed by technical difficulties and disruptions in the online language learning environment. Participants felt discouraged and helpless, especially when faced with these technical hurdles. FGD reflections revealed this frustration. For example, some participants contemplated:

*“A stable internet connection and clear audio are essential for online teaching. During our practice teaching, our field study teacher emphasized using microphones to ensure students could hear us clearly. Unfortunately, internet connectivity issues can sometimes cause students to appear disconnected and then reappear later. This can frustrate students who miss parts of the lesson due to a lagging connection.” [PTeacher 9]*

*“...if you have broadband internet, it really has a big effect. A stable broadband connection significantly impacts online learning.” [PTeacher 10]*

Beyond the challenges with internet connectivity, a detailed analysis of the interview data revealed specific technical challenges that hindered various aspects of the learning environment. These included poor internet connectivity at the school, inadequate space for practice teaching, and difficulties in time management. For instance, participants shared:

*“The internet connection was a real problem on the first or second day. When the connection dropped, Google Meet lagged significantly, significantly impacting the teaching. The lag made Google Meet unresponsive, and it felt*

*like the students were in a different online space. It required a lot of adjustment and extra energy to keep the class engaged.” [PTeacher 8]*

*“Our internet connection at school was weak, and the one-hour time difference sometimes caused confusion... Regarding the internet connection, no specific tools were provided. We had to find areas within the school with a strong connection.” [PTeacher 11]*

In addition to these technical limitations, the analysis of journal reflections revealed that managing these disruptions presented a challenge in online classrooms. Unlike physical settings, addressing them discreetly is more difficult. This suggests a need for them to develop new online classroom management strategies. They shared:

*“Teaching in an online speaking class sounds difficult at first. You experience a loss of connection and do not know what to expect. Some students might not listen to you once you send the discussion link, while others join the meeting. Simply sending the link does not guarantee attendance.” [PTeacher 5]*

Furthermore, specific technical issues such as connection problems, frozen screens, and audio glitches frequently disrupted the learning process, as documented in participants' journals. One participant described how these interruptions negatively impacted the learning experience:

*“The technology honestly did pose some challenges. A student's frozen video, lagging audio, or internet connectivity issues could disrupt the flow of the lesson.” [PTeacher 7]*

These findings underscore the complex instructional challenges faced by PTs in transitioning to the online classroom. This highlights the importance of understanding the target audience and tailoring lessons to their developmental stage and learning preferences.

The next section reveals the themes that emerged in exploring the various coping mechanisms they employed to navigate the online classroom and ultimately overcome the online teaching challenges.

#### **4.2.4. Developing Online Teaching Strategies**

The transition to online teaching was a whirlwind for PTs. Confronted by a myriad of challenges, from technical glitches to maintaining student engagement in the virtual realm, they demonstrated remarkable resilience. One such strategy was the development of interactive presentations to revitalize online learning. This exemplifies the diverse coping mechanisms PTs employ to navigate the complexities of the online classroom. The following subtheme delved deeper into this coping mechanism, exploring how PTs conquered the instructional divide.

**4.2.4.1. Creating Interactive Presentations.** Across the narratives, the tech-savvy spirit of the PTs shone through. PTs embraced technology and tried their best to become proficient in online tools like Canva, Google Meet, and Line. These platforms were leveraged to create interactive lessons, enhance communication, and cater to diverse learning styles.

FGD reflections further elaborated on specific techniques, such as combining presentations with interactive elements and collaborative activities. These findings underscored the importance of interactive presentations in enhancing student engagement. Participants explained:

*“Initially, our presentations were different. However, our CT suggested combining them to ensure consistency in the lesson content. This makes sense because we are teaching at different levels (Elementary and*

*Secondary), and our initial approaches would not necessarily align. The idea was to have a unified PowerPoint for a more cohesive student learning experience.” [PTeacher 2]*

*“I use two main strategies to engage learners in my online teaching. First, I incorporated quizzes, polls, and interactive videos to make learning more engaging and enjoyable. Then, through the Line app, I created forums or conversations where students could discuss materials. They were also asking questions and connecting with each other.” [PTeacher 3]*

*“From the outset of our lessons, we prioritized student motivation by incorporating engaging games. Throughout the instruction, we employed a variety of activities to assess student comprehension. Recognizing the importance of maintaining attention, we strategically included dynamic elements in our PowerPoint presentations, such as moving graphics. Additionally, we utilized images and videos to enhance student engagement and promote understanding by fostering a sense of relatability to the content.” [PTeacher 6]*

Furthermore, interviews highlighted the collaborative nature of lesson planning and resource sharing, significantly contributing to developing interactive presentations. Participants shared:

*“The word wall is fantastic because it is automated! Just type the topic, and students can choose how they interact with the content. It is even effective in online learning environments like Google Meet, even when used alongside the chat box, to get students' attention. The power of visual aids is undeniable.” [PTeacher 1]*

*“...when I struggled with Canva (because I do not have Canva Pro yet) and relied on data connections with slow loading times, my teammates were happy to share resources. We also collaborate on lesson plans, ensuring consistency across the different levels (M1, M2) assigned to us.” [PTeacher 4]*

*“In addition to making PowerPoint presentations, using video clips can also help teach and guide students to speak simple English.” [PTeacher 8]*

Journal reflections also highlighted the importance of cultivating resilience in students. When confronted with technical challenges, participants transformed these obstacles into learning opportunities. Participants' reflections exemplified this approach. One participant wrote:

*“Prior to the lesson, I double-check everything – internet connection, audio, and video settings – to avoid any technical issues that could disrupt the flow of the class. Maintaining a seamless online experience is crucial for keeping my students engaged and focused. However, unforeseen technical glitches can happen.” [PTeacher 9]*

Beyond technical proficiency, journal reflections unveiled a proactive approach to overcoming challenges. Rather than viewing technical glitches as setbacks, PTs adopted a problem-solving mindset. They implemented backup plans, fostered collaboration with students and cooperating teachers, and diligently sought online resources for troubleshooting. This resourcefulness is exemplified by one participant who meticulously prepared for lessons, describing their approach:

*“To combat internet instability, I invested in portable Wi-Fi, ensuring a seamless learning experience. Recognizing the diverse linguistic backgrounds of my students, I diligently translated content into Thai, bridging the language barrier and fostering inclusivity.” [PTeacher 4]*

*“Being online meant revamping my teaching style a bit. I incorporated more interactive activities and multimedia elements to keep students engaged...”*

*[PTeacher 6]*

This emphasis on interactivity aligns with the journal reflection’s point about integrating cultural elements to enhance engagement stating:

*“Integrating Thai culture directly into the lessons adds another layer of engagement.” [PTeacher 2]*

Generally, creating interactive presentations was a prominent coping mechanism employed by the participants, showcasing their adaptability and resourcefulness. They embrace technology, becoming proficient in online tools. These platforms are leveraged to create interactive lessons, enhance communication, and cater to diverse learning styles. The subsequent section focuses on an important challenge encountered by PTs during online practice teaching and the coping mechanisms they developed.

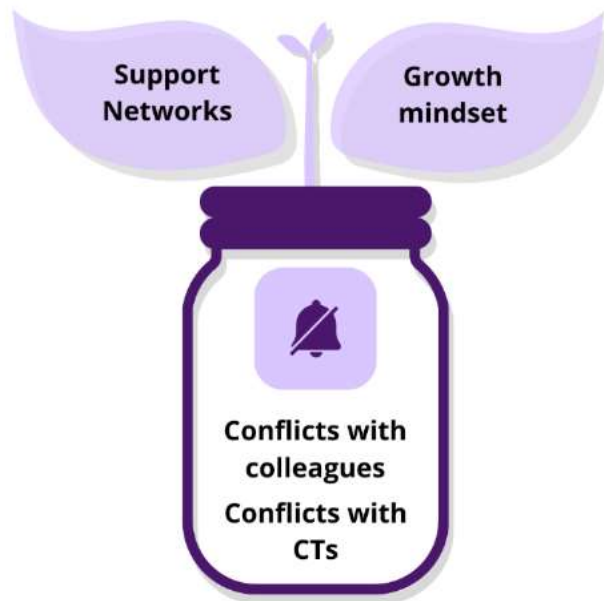
#### **4.2.5. Unspoken Conflicts**

Thematic analysis revealed a third, previously undisclosed theme related to challenges. Figure 5 highlights a critical factor in successful online teaching training, as these unspoken conflicts have been bottled up for a significant period.

Unlike technical difficulties or student engagement issues, these problems were not that readily apparent. Participant narratives reveal a hesitation to voice concerns. They feared appearing incompetent or creating conflict, leading to a "silent struggle" that hindered their learning and teaching. These challenges were not explicitly mentioned in the journals, but FGDs and interviews provided a platform for participants to share their experiences.

## Figure 5

### *PTs' Unspoken Conflicts and Coping Mechanisms*



**4.2.5.1. Conflict with Colleagues.** FGD reflections revealed how the competitive environment impedes collaboration. One participant expressed the difficulty working in this type of environment:

*“When our CT suggested we only have one PPT, it had already been assigned. However, the biggest challenge is that we cannot seem to agree. P4 and I are the only ones who seem to get along well. We have difficulty working with the other STs because they view practice teaching as a competition. It is not about working together, but that is their competitive mindset...” [PTeacher 2]*

The participant's reflection also shed light on how the program's structure may have influenced the collaborative environment. This revealed a stronger sense of teamwork among those within the same program, contrasted by potentially less collaboration with participants from different programs. Participants shared:

*“There are five members in the Thai group, but only two actively collaborate – again, just P4 and me. We are in the same program, so that makes sense.”*

*[PTeacher 2]*

These struggles posed an unfavorable impact for PTs particularly in their social connections. This provided a link to one of the PT's journal entries on a profound sense of isolation and distance from peers that emerged due to the shift to online interactions, contributing to increased anxiety levels among PTs. PTeacher 2 clearly described the struggle:

*“I have friends whom I have not spoken to in a while and whom I bonded with during our face-to-face classes. Due to virtual learning, we have felt the distance. Many of us experience anxiety as we stay confined all day, waiting for teaching hours.” [PTeacher 2]*

**4.2.5.2. Conflicts with CTs.** Interviews also offered a different perspective on these uncommunicated challenges. Participants described a situation where a CT offered vague or dismissive feedback. PTs mentioned:

*“...when I wanted to say, 'What should I improve on?' they would just say, 'It is okay, teacher,' as if they were in a hurry. That is how they always said, 'It is okay' ...I would ask for suggestions on how to improve.” [PTeacher 1]*

This suggested a lack of clear and constructive feedback from the CT, hindering the participant's ability to learn and improve. In addition, another participant also acknowledged inconsistent communication from CTs, who may not always respond promptly to messages or actively participate in online sessions.

*“There have not been many issues with the cooperating teachers (CTs) themselves. However, their communication can be inconsistent - sometimes,*

*they do not respond much to messages. While they attend classes, they might not be actively engaged at times...” [PTeacher 4]*

One PT also observed that some CTs lacked sensitivity to their needs for support. While instances of these issues were reported to school coordinators, such reports were infrequent due to fear. Participants courageously shared their experiences during interviews:

*“(The CT) only came in once. They speak Thai, so I do not understand them. It seems like if we do not report absences to the head teacher, nothing happens.” [PTeacher 1]*

*“Regarding the CT, who rarely provided feedback, we have not taken any formal action. While we might think that they are not responsive, they occasionally reply to messages in the chatbox. We have chosen not to raise the issue further, partly due to a fear of being reported.” [PTeacher 4]*

While journal entries predominantly reflected positive experiences, it is essential to acknowledge the pressure felt by some PTs. Representing the university on an international stage created a sense of responsibility that, despite the overall positive feedback, placed significant pressure on individuals to excel. One participant explicitly described this challenge:

*“...you are under pressure since you represent the entire University, not just your college.” [PTeacher 3]*

These findings highlight the importance of encouraging open and consistent communication among all stakeholders involved in online teaching training. The next section explored specific strategies and recommendations to address these silent struggles and how PTs created a more supportive learning environment.

#### **4.2.6. Support Systems and Growth Mindset**

According to the findings, developing strong support networks, including creating a development mindset, is crucial for effective online practice teacher training. This subject directly addresses the previously described silent challenges that might impede PTs' learning and development. The findings indicated that supporting networks and a growth mindset are adaptation traits that make the experience rewarding and transforming for PTs.

**4.2.6.1. Support Networks.** Analysis revealed PTs' reliance on diverse support systems to combat silent struggles. FGD reflections illustrated how collaboration led to improved lessons. For example, several participants expound:

*"...Initially, our presentations were different. However, our CT suggested combining them to ensure consistency in the lesson content. This makes sense because we are teaching at different levels (Elementary and Secondary), and our initial approaches would not necessarily align. The idea was to have a unified PowerPoint for a more cohesive learning experience for the students..." [PTeacher 2]*

*"...The collaboration helped me overcome these fears. I shared my PowerPoints with friends, and we had a group chat (GC) for scheduling and asking questions. I also contacted colleagues about lesson plans, using Canva for design, and recording with OBS in Google Meet. I am incredibly grateful for their support, even during times that require extra work." [PTeacher 10]*

Data from the interviews revealed the broader support network that extends beyond colleagues. Even family and friends contributed emotional support. Participants heartwarmingly shared:

*“I have a great support system: my family, friends, and even my cooperating teacher. They are always there for us, encouraging us with words like 'always do your best. You can do that. This is your opportunity.’” [PTeacher 8]*

*“...My co-interns, my university teammates, and the college teachers were all part of my support system. Family, of course, were the ones I talked to about internship challenges. They would ask questions, and we would share our problems and challenges together. They truly became my support system.” [PTeacher 11]*

Journal documents also shed light on the value of collaboration. PTs emphasized the role of mentors and fellow PTs in fostering determination and resourcefulness. Participants wrote:

*“The unwavering support of our mentors, coupled with my tenacious spirit and that of my fellow interns, fueled our determination. We learned to adapt, leveraging technology creatively and developing engaging strategies to bridge the language gap.” [PTeacher 3]*

*“Thankfully, I had the support of my cooperating teachers, who helped troubleshoot technical difficulties.” [PTeacher 8]*

Through collaboration, PTs fostered a vibrant support network. This network facilitated resource sharing and problem-solving, as mentors, peers, family, and friends all played a part. Together, participants provided a bedrock of encouragement and emotional support. Reflecting on this collaborative environment, PTs developed a

strong belief in their ability to navigate challenges and thrive in the online learning environment.

**4.2.6.2. The Growth Mindset of Online PTs.** Despite facing numerous online challenges, participants demonstrated remarkable resilience, transforming obstacles into valuable learning opportunities. Financial considerations also influenced their experiences. FGD reflections revealed that the part-time salary served as a positive motivator. As one participant shared:

*“We have a quota of days we need to be present at the cooperating school. Since we are paid a salary while there, a fee is associated with it. Naturally, not meeting the quota can lead to a reduction in wages.” [PTeacher 1]*

*“While the incentives provided by cooperating international schools are satisfactory, it would be beneficial if the university could offer additional incentives or a system of points for participation in the internationalization program. This could potentially include excused absences or rescheduled exams for program-related commitments.” [PTeacher 11]*

This revealed that the financial security and future-oriented perspectives on skill development further enhanced the experience. Data from interviews also offered a complementary perspective by mentioning the practical considerations of the PTs. They expound:

*“The salary, though part-time, is surprisingly good...” [PTeacher 1]*

*“Online teaching can be tiring at times. However, I remind myself that this experience is valuable preparation for my future career in education, especially considering the increasing importance of digital skills in today's world.” [PTeacher 4]*

Examining participants' journals revealed that intrinsic rewards surpassed monetary return as the primary motivator for PTs. Overcoming challenges strengthened their determination and witnessing student success ignited their passion for teaching. Participants expressed:

*"...The trust they placed in me, confiding in me not just as a teacher but as a friend, is a memory I will cherish. Witnessing their playful interactions with each other brought me much joy." [PTeacher 1]*

*"Witnessing them blossom into confident English speakers was truly heartwarming. It was not just their language skills that flourished; I saw them grow into individuals with a newfound sense of self-assuredness. It filled me with a deep sense of accomplishment to know that I had played a role in their personal development." [PTeacher 5]*

While physical distance was a factor in the challenges faced, building meaningful connections with students brought immense joy to the PTs. One participant shared the confidence they built with their students:

*"...but along the way, you will learn with the process of teaching. To learn how to continue, to learn how to persevere, to learn how to be more patient, to learn how to trust, and to learn how to love the whole process. That is one of the best things in teaching - YOU LEARN." [PTeacher 11]*

Despite online challenges, PT narratives reveal a transformative journey. Resilience, student growth, and community emerged as core rewards, with intrinsic motivators like connection trumping financial aspects. Strong support systems can empower PTs to thrive in this new learning environment.

### 4.3. Insights to Leverage the Integration of Networked Learning

This section understands the potential of connectivist pedagogy to enhance the IPP. Participants examined the program's current structure based on their experiences and identified key areas for improvement. These areas aim to provide valuable insights to strengthen the IPP by strategically integrating networked learning principles and practices. The subsequent sub-section focused on specific strategies to reinforce the IPP's core objectives and outcomes by leveraging the power of online collaboration and knowledge sharing.

#### 4.3.1. Strengthening the IPP

The analysis of this theme identified a critical need for strengthening online practice teaching programs. Four key findings provide a roadmap to create a more supportive learning environment, equipping future educators to thrive in online classrooms.

Table 6 synthesizes key takeaways gleaned directly from participants' experiences. The findings revealed the areas that need improvement, the lived experiences that informed these suggestions, and the participants' proposal insights to address them.

**Table 6**

*Insights to Improve the IPP*

<b>Area for Improvement</b>	<b>Lived Experience</b>	<b>Insights for Improvement</b>	<b>Benefits</b>
<b>Enhancing Online Teaching Skills</b>	Difficulty with interaction necessitates clear communication and technology use for student	Workshops on essential online teaching techniques, technology use, and virtual classroom management [PTeacher 3]	PTs become proficient in online teaching methods, and their students become engaged and motivated in the learning

	engagement [PTeacher 8]	Workshops on incorporating engaging multimedia resources, interactive activities, and games [PTeacher 3]	environment [PTeacher 3]
		Training on fostering deeper student participation and interaction through clear communication and technology use [PTeacher 8]	PTs can effectively manage online classrooms. [PTeacher 8]
<b>Promoting Continuous Learning</b>	Mentorship provides valuable guidance and support [PTeacher 7]	Formal mentorship program pairing experienced online teachers with new teachers [PTeacher 7]	PTs receive ongoing feedback and guidance [PTeacher 7]
	Sharing best practices and resources fosters a collaborative learning community [PTeachers 3 and 8]	Resources on staying informed about current trends, tools, and strategies [PTeacher 7]	PTs stay up to date on educational trends and new approaches [PTeacher 7]
<b>Optimizing Program Structure</b>	Unfamiliarity with technology can lead to technical difficulties [PTeacher 7]	Rigorous selection criteria that assess teaching skills [PTeacher 7]	The program selects well-prepared and suitable participants [PTeacher 7]
	Lack of prior experience with online teaching can create challenges	Clear guidelines on lesson content creation with sample activities and templates [PTeacher 7]	PTs can effectively manage their time and create high-quality lessons [PTeacher 7]
	Traditional interview-based assessments [PTeacher 2]	Workshops on a wider range of online platforms with engaging features like interactive whiteboards and breakout rooms [PTeacher 3]	Students experience a more engaging learning environment with diverse platforms [PTeacher 3]
		A curated repository of online learning resources, including webinars and sample materials [PTeacher 7]	PTs are equipped to address student cultural backgrounds [PTeacher 7]
		Resources and guidance on integrating culturally	PTs create effective and culturally

		relevant content [PTeacher 7]	sensitive lessons [PTeacher 7]
<b>Addressing Technical Hurdles</b>	Importance of reliable internet access for seamless online teaching [PTeachers 1, 2, and 4]  Need for backup plans to address technical difficulties [PTeacher 4]	Workshops on essential online teaching technologies [PTeacher 7]	PTs become proficient in using various educational technologies [PTeacher 7]
		Reliable technology infrastructure with consistent internet access [PTeachers 4 and 7]	The program provides a strong foundation with reliable internet connectivity [PTeachers 4 and 7]
	Unfamiliarity with online teaching tools hinders effective online instruction [PTeachers 1, 4 and 8]	Introduction to a wider range of online platforms with engaging features [PTeacher 4]	PTs are adaptable and well-equipped for diverse online environments [PTeacher 4]
		Backup plans for technical difficulties [PTeacher 4]	

**4.3.1.1. Enhancing Online Teaching Skills.** Triangulating narratives from the journals, FGDs, and interviews, a critical need for improved online teaching skills emerges. Participants expressed a strong need for early training to enhance their online teaching skills, specifically before the program's commencement. Their insights emphasized the importance of **early training** before program commencement. They suggest:

*“The program could be strengthened by providing practice teachers with opportunities to develop proficiency in a wider range of online teaching tools beyond the basics while also equipping them with strategies for fostering deeper student participation and interaction.” [PTeacher 3]*

*“To other Online Practice Teachers, for your future classes, you should carefully consider developing deep connections and understanding with your students. This will make the warm-up activities more enjoyable and promote learning.”*

*These are just some of the challenges you may encounter in your future profession.” [PTeacher 5]*

Moreover, as expressed in journals and interviews, the focus should be on core online teaching techniques, technology utilization, and virtual classroom management. They clarified:

*“...The lack of face-to-face interaction in online settings can make communication challenging. However, I have learned to articulate instructions and concepts clearly by utilizing multimedia resources and technologies to keep students engaged.” [PTeacher 8]*

*“...This international teaching experience has equipped me with invaluable skills, including cultural sensitivity, resilience, and creative teaching strategies for virtual environments. I am committed to fostering global understanding and creating a more connected world through education.” [PTeacher 11]*

As suggested in participant reflections, the demonstrations of effective methodologies would further enhance preparedness. Insights from all sources highlighted the need for workshops incorporating engaging strategies. A participant emphasized that these workshops should cater to diverse learning styles and maintain student focus in the virtual environment.

*“In my opinion, the most important area for improvement is teacher preparedness. This involves thoroughly preparing all teaching materials and familiarizing with online software and hardware before teaching online. Unfamiliarity with technology can lead to technical difficulties and troubleshooting issues. Ensuring reliable internet access in the teaching environment is crucial to address this. Additionally, incorporating interactive*

*games can maintain a high level of student engagement in the virtual setting.”*

*[PTeacher 7]*

*“The strategy remains one of collaboration, focusing on improving open communication. This encourages students and teachers to share personal experiences and provide feedback that fosters reflection.” [PTeacher 7]*

Workshops on creating engaging content, incorporating interactive activities, and fostering student participation are hoped to equip PTs with the necessary tools and adjustments. Participant added:

*“In terms of content, I believe there is room for improvement. While sample content is sometimes provided, it can be a hustle for practice teachers to create their lessons from scratch because their schedules often conflict with other face-to-face class schedules. Additionally, online teaching can sometimes clash with activities and requirements from other subjects. Even when lesson outlines exist, practice teachers still need to make them creative.”*

*[PTeacher 8]*

One interview excerpt offered valuable insight into the importance of adaptability for online teachers. The participant's experience highlights the need for educators to be flexible in their approach and expectations, recognizing that online teaching may require adjustments compared to traditional methods.

*“I have also discovered I am more flexible than I thought. For a while, I got stuck in an “elementary-only” approach, which was not ideal for teenagers. At first, I was disappointed. However, then I understood the importance of flexibility. Sometimes, your expectations will not match reality. So, I realized that even as we age, staying flexible is crucial. It is not like the older you get, the less*

*flexible you are. Rules can be bent! Moreover, I am happy to discover I can still be adaptable.” [PTeacher 4]*

**Targeted interventions** addressing these identified needs can transform teacher education programs, preparing future educators for the realities of online teaching and fostering supportive learning environments.

**4.3.1.2. Promoting Continuous Learning for Educators.** Examining participant narratives reveals a strong emphasis on continuous learning as a cornerstone of a thriving online teaching program. Journal and interview reflections highlight the value of formal mentorship for new PTs, providing guidance and support throughout their online teaching experience. Participants shared:

*“Pairing experienced online teachers with new teachers can offer valuable guidance and support throughout the practice teaching experience. Throughout our teaching experience with the Thai students, I had no instances of assisting a regular classroom teacher...” [PTeacher 7]*

*“The technology and experience I gained from online practice teaching are now valuable assets in my actual teaching career. The challenges I faced during online practice teaching helped me adapt and prepared me to use technology effectively in the classroom. My experiences were also helpful for my classmates and fellow practice teachers.” [PTeacher 8]*

One interview reflection emphasized the importance of regular feedback sessions to help PTs improve their skills and adapt their approaches.

*“I have noticed several changes in myself since practicing teaching. My English was not very refined before, and I spoke slowly with many gestures. However,*

*online practice teaching has helped me improve my spoken English, which significantly benefits my overall teaching.” [PTeacher 8]*

Additionally, the importance of providing alternative options emphasized for mandatory events (e.g., recordings, a summary of meetings) to accommodate scheduling conflicts aligned with the emphasis on flexibility expressed in the FGD reflection. Participant emphasized:

*“It is important to stay informed about current events, tools, and strategies in online education. Here are some ways to achieve this: participate in online forums, discussions, or groups where educators share resources, exchange ideas, and discuss their online teaching practices...” [PTeacher 7]*

The importance of fostering a community of learners emerged strongly across all narratives. Journals highlighted the value of workshops, online forums, and curated resource repositories.

*“Fostering a sense of community through online platforms has been essential, allowing for collaborative learning and cultural exchange.” [PTeacher 2]*

*“Throughout this journey, I connected with a wonderful network of people. My supervising teacher provided invaluable guidance and support while collaborating with peers fostering a sense of community and shared learning...” [PTeacher 7]*

An interview reflection showcased the transformative power of online practice teaching. By reflecting on her experiences, PT reported:

*“Being an ESL teacher now allows me to compare teaching experiences. Instead of rigidly insisting on things being done ‘in ClassIn’ a certain way, I am more open to different approaches.” [PTeacher 4]*

With these insights, the online teaching program is projected to provide a more dynamic environment that matches the participants' goals of continual learning, professional growth, and a supportive community. As a result, the PTs will be more prepared to succeed in online classrooms and contribute to their students' success.

**4.3.1.3. Optimizing Program Structure.** Several key areas for optimizing program structure emerge, aligning with the participants' hopes for a well-designed online teaching experience.

Journal reflections highlighted the PTs' efforts to create a culturally relevant learning environment, even with limited resources. They mentioned:

*“Learning about new instructional design tools and staying up-to-date on the latest online teaching trends helps me create a more engaging and effective learning environment. I am confident that I can keep improving my online teaching practice. Remember, we are all in this together!” [PTeacher 6]*

*“...I meticulously plan each lesson, ensuring that the content is educational and culturally relevant. I incorporate elements of the Thai language, using tools like Google Translate and their history and traditions into my daily lessons to create a more immersive learning experience.” [PTeacher 9]*

The journal reflections, where participants described incorporating the country's language and traditions to enhance cultural relevance, mirrored the suggestions for improvement from other participants. This finding was also evident in FGD, where a participant proposed providing culturally relevant sample PowerPoints, such as those with Thai food examples. A participant shared:

*“One area for improvement is the availability of sample PowerPoints. Suppose your lesson topic is about food. It would be beneficial to have more examples*

*included in the PowerPoints. This will allow teachers to expand on their ideas and make their lessons more engaging for students. By providing additional examples, teachers can effectively address students' curiosity and ensure their questions are answered.” [PTeacher 12]*

Moreover, FGD reflections revealed accessibility concerns. One participant emphasizes the potential for online practice teaching to be wasted if students lack the necessary equipment:

*“A friend of mine could not participate in the regular program because he lacked the necessary equipment. This situation highlights a potential waste of valuable learning opportunities. Many students would likely benefit from online practice teaching, especially those without internet connectivity or a computer/laptop.” [PTeacher 1]*

Another participant reinforced this concern by sharing their personal experience of needing to purchase a first laptop to facilitate online teaching. A participant explained:

*“When I did a practice teaching demo in Thailand, I faced challenges due to limited resources. I conducted the lessons online from my friend's house, which was not ideal. Before that, I needed to purchase a laptop – my first one ever, thanks to my parents – to ensure a safe and effective learning environment for the children. This experience strongly reinforces my agreement with P1's suggestion to provide practice teachers with laptops and internet access.” [PTeacher 2]*

Interviews delved deeper into resource limitations and logistical challenges. Participants specifically suggested:

*“The orientation was okay, but maybe it could be improved by keeping the practice teaching content and the practice teachers themselves updated on how online practice teaching is going. There are pre-and post-activities, but these are the only interactions between the university and the Thai school... Furthermore, with more consideration for scheduling conflicts, such as school events, we would not have to be excused from teaching in a comfortable environment. We were not teaching from home, so being restricted to noisy locations like the library or student office caused internet connection issues. The limited space also meant we could hear each other's lessons, creating distractions.” [PTeacher 11]*

*“Not everyone has access to these resources. Having the necessary tools will ensure they are prepared and can effectively teach online. Even with teaching skills, a lack of resources can hinder their performance. Therefore, I suggest offering online practice teachers access to essential materials.” [PTeacher 8]*

**4.3.1.4. Addressing Technical Hurdles.** Across all perspectives, participants acknowledged the inevitability of technical difficulties in online environments. Insights from journal reflections highlight personal efforts to overcome these hurdles, such as investment in portable Wi-Fi. A participant suggested:

*“...To address unstable internet connection, I invested in portable Wi-Fi, ensuring a seamless learning experience...” [PTeacher 4]*

Moreover, FGDs centered on resource limitations and the need for improvement, saying:

*“To better support us practice teachers, I hope the school has a strong internet connection (laughs). This would allow us to conduct our online practice teaching*

*sessions there. Since our internet connection at home is often better, it can be difficult to travel to the school during our designated practice times.” [PTeacher 10]*

*“...Another area for improvement is presentation tools. Ideally, I would like to invest in apps or websites, including social media platforms, that are specifically designed to make teaching and creating class presentations easier.” [PTeacher 11]*

These discussions align with the interview suggestions for prioritizing functionality and backup plans in technology.

*“A strong internet connection and reliable devices are essential for online teaching. While aesthetics can play a role, functionality is more important. In case of technical difficulties, it is crucial to have backup plans (plan B, plan C).” [PTeacher 4]*

This insight from journal reflection is further supported by the interviews also reveal a desire to explore diverse online platforms. Participants specifically suggested:

*“Classroom technology training should also be included in the program. Some practice teachers lack screen-sharing skills or the ability to create effective PowerPoints tailored to the student's level. Basic computer skills training would be highly beneficial...My only concern is with technology sometimes. It might not work, or I might accidentally click on a link with a virus that suddenly appears on the screen. You should really read the links before clicking on them, do not just copy and paste information.” [PTeacher 1]*

*“I hope online practice teaching is not limited to Google Meet. It would be great to try other applications as well. I am currently learning Zoom, and Skype is another option. However, Voov seems even better. Other video conferencing*

*tools are particularly well-suited for the ESL world. Voov, for example, has a dedicated lesson room with pre-loaded materials, rewards systems, and built-in audio effects. It offers some similarities to Zoom but with a wider range of lessons.” [PTeacher 4]*

This chapter comprehensively analyzed the firsthand experience of PTs in the context of online practice teaching. The themes that emerged from various areas of investigation were analyzed, which shed light on the ‘know-where’ and substantiated the ‘know-what’ and ‘know-how’ of the phenomenon. The investigation centered on utilizing tools and resources to facilitate the flow of information, improve the exchange of knowledge, and encourage social involvement in online practice teaching. The study also analyzed the challenges participants faced, including communication difficulties, disconnects in instruction, and emotional concerns. This research examined the adaptive patterns of dealing with difficulty and sources of assistance.

In a nutshell, the chapter offered valuable perspectives on incorporating networked learning to enhance the overall teaching practice. An overarching point that arose from these inquiries was the pivotal significance of technology and human connection in effectively traversing the distinct topography of online education. The following chapter provided a more thorough examination and discussion of these themes.

## Chapter V

### DISCUSSION

This chapter critically examines pre-service teachers' (PTs) experiences in online practice teaching, exploring the connectivist pedagogies. Through a thematic analysis of research findings, the discussion explored how PTs leveraged online resources to facilitate information gathering, knowledge sharing, and social interaction within a connectivist learning environment. This exploration also shed light on the challenges faced by PTs while teaching remotely and the strategies they employed for successful management. Ultimately, the chapter aimed to identify potential improvements to the online practicum program to enrich the learning experiences of future educators navigating the complexities of online instruction.

This research investigates the specific methods by which PTs learn. Research question one asks: **RQ 1. How did pre-service teachers utilize the learning tools and resources to seek information, exchange knowledge, and engage in social interaction?**

Analysis informed by previously identified themes and subthemes explored how participants utilized learning tools and resources to address the first research question. The analysis commenced by examining specific tools employed by participants in their information-seeking endeavors. Building on this thematic foundation, the analysis delved deeper into the "know-where," substantiating the "know-what" and "know-how" of this process. This involved examining how these tools facilitated knowledge sharing and social interaction among the PTs.

## 5.1. Leveraging Online Networks for Professional Development

The advent of digital technology has transformed the landscape of education, offering unprecedented opportunities for PTs to connect, collaborate, and learn. This section delves into how PTs harness online networks to enhance their professional development examining how PTs seek information, build expertise, and share knowledge within online communities. This section provided insights into the critical role of online networks in shaping PTs' identity and practice.

### 5.1.1. Tools Used in Seeking Information

The analysis of the themes revealed several key aspects of how PTs sought information within the online practice environment. Notably, the findings suggest a cyclical process where PTs sought information to understand their students' needs and motivated them to find essential tools to enhance their teaching practice, and this cycle continues. A detailed discussion of this cycle follows in the next section. However, this section focuses on the specific tools and resources PTs identified as valuable in online teaching.

Further analysis, as evidenced by Table 6, revealed the **human and non-human resources used for lesson planning and delivery and the perceived benefits of these tools** in online practice teaching. Importantly, PTs identified significant advantages associated with utilizing these tools. These benefits included increased efficiency, particularly in lesson planning, improved content quality through peer review, and creating more engaging and accessible presentations. Notably, these tools' ease of access and affordability further align with the needs of PTs working with limited resources.

**Table 6**

*Tools and Resources Used for Lesson Preparation and Delivery*

<b>Uses</b>	<b>Tools and Resources</b>	<b>Benefits</b>	<b>Statements</b>
<b>Lesson preparation</b>	Lesson planning tools	Leverage past knowledge to create effective online lessons	"...The purpose of a well-crafted lesson plan is to serve as a roadmap..." [PTeacher 6]
		Clear and organized lessons Easy for students to follow	"Keeping lessons clear and organized is key. I always create a lesson plan as my guide..." [PTeacher 6]
	Search Engines e.g., Google	Find relevant and current content to enhance lessons	"Google remains the most accessible tool for searching for subject-specific and lesson-related information..." [PTeacher 11]
	Online Resources e.g., Wordwall	Save time and access ready-made engaging activities Works well with limited data	"... I download resources beforehand...For example...from Wordwall..." [PTeacher 4] "A popular tool I use is Wordwall... the best part is the flexibility to choose the activities that best fit your needs..." [PTeacher 1]
	Canva	Visually appealing presentations Capture student attention	"...Canva is a popular tool for creating visually engaging presentations. From there, we can export them to PowerPoint and utilize platforms like Google Classroom for activities..." [PTeacher 11]
	Slides Go	Free and accessible alternative	"When the desired content is unavailable on the word wall, we use Canva to create it. If there is a fee for using PowerPoint or WPS Presentation, Slides Go is a free alternative with pre-made content..." [PTeacher 1]
	Quizizz	Engaging assessment tool	"Quizizz and other websites are helpful tools for my lessons..." [PTeacher 4]
	YouTube	Enhance learning experience	"Utilizing multimedia resources is another powerful tool. Videos, images, and interactive presentations enhance the

			<i>learning experience..." [PTeacher 2]</i>
	Open Educational Resources (OERs)	Enhance presentations and activities	<i>"When I use online resources, I first consider if they directly address my topic..." [PTeacher 1]</i>
			<i>"...Videos, images, and interactive presentations enhance the learning experience..." [PTeacher 2]</i>
	Enrichment materials e.g., costumes, presentations	Increase student engagement and cater to different learning styles	<i>"Even for online demos, I put effort into creating costumes. I make headpieces to interact with the children, and I also use costumes I buy or create using readily available materials related to the day's topic." [PTeacher 2]</i>
	Collaboration, e.g., sharing lessons with colleagues	Improve lesson quality through peer review and knowledge sharing	<i>"...To ensure source credibility, I verify the source myself. Additionally, my colleagues and I ask each other..." [PTeacher 11]</i>
	Understanding Learners e.g., student background	Tailor lessons to students' needs and cultural backgrounds for better comprehension	<i>"Before designing any lesson, I take the time to understand the learning styles and preferences of my Thai students..." [PTeacher 9]</i>
<b>Lesson delivery</b>	Technology for communication e.g., Google Meet, Line app	Facilitate communication and interaction in the online classroom	<i>"The most helpful tool for me was Google Meet. Since we used it in my third year to learn how to teach online..." [PTeacher 8]</i>
		A platform for online teaching Video conferencing Screen sharing	<i>"Since we are online adventurers, we made sure to have a solid internet connection and all the tools we need – laptops at the ready and our presentations prepped and polished!" [PTeacher 6]</i>
	Presentation Tools e.g., Google Slides, Canva, PowerPoint presentations	Free and accessible tools	<i>"When presenting lessons, we use Canva for lesson preparation..." [PTeacher 11]</i> <i>"...These tools allowed us to present our lessons effectively during Google Meet sessions..." [PTeacher 7]</i>
Effective for online presentations		<i>"The most important element for me is including measurable learning objectives. Creating a</i>	

		Features are engaging for students	<i>clear and concise PPT allows students to grasp the lesson..." [PTeacher 9]</i>
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These findings regarding the benefits of specific tools and resources align with current research on virtual environments (VEs). Numerous studies have reported the educational benefits of various tools and resources in VEs. Siemens et al. (2020) have acknowledged that, with the onset of the pandemic, technology adoption has been rapid. Jeon et al. (2022) identified key pedagogical affordances of VEs, including communication, engaging learning environments, opportunities for knowledge construction, and multimodal sharing. However, Ong and Ancheta (2023) underscore the importance of carefully considering virtual materials' design and functionalities to realize these benefits. These materials should align with learners' characteristics to address individual learning styles and needs effectively.

While tools and resources in virtual environments provide some benefits, their potential drawbacks should also be considered. Pando (2018) identified potential shortcomings regarding behaviorist and connectivist approaches in tech-driven teaching. According to him, behaviorist approaches, such as teacher control and instructional designs, tend to favor a passive learning style. Additionally, the findings emphasized learning as a student's responsibility. Autonomous learners must choose the most appropriate ICTs since these serve solely as tools for interaction and collaboration. Pando (2018) further emphasized this point, arguing that prioritizing technology over student needs can create a disconnect from the learning process. Bates (2022) also critiques technology-centric theories like connectivism, for this would potentially pitfall on overreliance on technology in education.

The findings underscore the PT's pivotal role in the learning process, necessitating robust teacher education programs in technology integration. Aligning with this, Bates (2019) implicitly emphasizes the 'quantity over quality' need for human judgment and expertise to guide technology use. Siemens et al. (2020) have long considered these potential impacts on virtual technologies, cautioning that users and implementers of digital tools in teaching and learning need to be aware and mindful of our teaching methods. He stated, "As people use more and more technology, there is less and less humanity." (Siemens et al., 2020, p. 118). The findings are critical for teacher preparation because education programs are shifting to prepare a tech-focused generation that places a greater emphasis on technology use. The next section delves deeper into how PTs seek information about the initial stages of the learning process within VEs. The discussion explored how the PTs gathered information, "what" they prepared, "for whom," and the "hows" in the process.

### ***5.1.2. The Cyclical Nature of Understanding Student Needs***

Effective online teaching requires PTs to gain prior insight into their students' backgrounds, learning approaches, and specific needs within the online instruction mode (Bates, 2019; Fitriyah, 2023; Cabiladas, 2020). This section delved into the importance of upfront effort, or the work undertaken before course delivery begins, and how it explicitly reflects the cyclical nature of online teaching.

In this study, **PTs actively sought information about their students** in several ways. They used connectivist practices such as gathering information from online resources and collaborating with colleagues. This finding reveals that PTs seek information to better understand their teaching strategies. This initial connection reveals the strengths and weaknesses of their learners and their holistic needs. This

aligns with Garrison et al. (2010), emphasizing that the initial process enables teachers to tailor support and create a more successful online learning environment.

Additionally, the findings show that **PTs followed the fundamental theories and instructional strategies** they learned before receiving their actual teacher training. Specifically, **the technology for education and professional education courses provided PTs with the needed knowledge and skills relevant to this online setting.** This means that PTs must thoroughly know professional education courses before online practice teaching and be technically prepared. According to Giner-Gomis et al. (2022) and Kurtulmus et al. (2023), there is a need for a strong foundation to adapt to online education.

However, the study also identified challenges associated with some practice teaching applications, particularly those related to distance learning. These constraints prevented the programs from fully contributing to the academic growth of PTs. This means that learning does not only occur within formal education. Many things can also be learned from outside-of-the-classroom experiences. These prior learnings and experiences are valuable and can be applied to the challenges of new situations.

A link between the two is necessary to translate this theoretical knowledge into practical skills, and **practice teaching experiences serve as this bridge.** According to Antallan et al. (2022), PTs could strengthen their theoretical understanding by **observing experienced mentors, developing and delivering their own online courses, and acquiring hands-on experience.**

Lastly, PTs were able to **refine the knowledge** they sought. These steps illustrate a cycle of knowledge acquisition, development, and reciprocation of the knowledge. This cycle reflects connectivism theory, presenting effective learning and emphasizing the PTs' active role in the process. Siemens et al. (2020) highlight the

importance of learners actively developing their skills as a cornerstone of this iterative cycle.

In this study, PTs are the actors in the network who serve as both the facilitator and the student. This student-centered approach aligns with Bates' (2019) and Garrison's (2017) co-construction perspectives, which emphasize the importance of active contribution in the process of learning. The roles of CTs and PT supervisors within connectivist pedagogies remain ambiguous. Primarily perceived as facilitators, they establish the initial learning environment and context, bringing learners together. Subsequently, PTs are expected to construct their own personalized learning environments to connect with "successful" networks, with the implicit assumption that learning will naturally occur through exposure to information and individual reflection. The need for formal institutional support within this framework is minimized, particularly given the widespread accessibility of social media platforms. Learning then is reconfigured as accessing and following relevant information streams.

This experience-based knowledge can help comprehend the Personal Learning Networks (PLNs) built by PTs to further improve their online learning experiences. Brown and Poortman (2018) support this by emphasizing the importance of proficient information-seeking skills in creating PLNs and other critical areas for development.

### ***5.1.3. Building Expertise: The Soft Skills***

In this section, the investigation focused on the processes by which PTs developed expertise and provided a more detailed explanation of the soft skills that they acquired during their involvement in this online practice. Drawing on Siemens et al. (2020), soft skills are defined as "not the listed criteria for what you will learn in a

university program; they focus more on what you (the learner) become as a result of the university program." (p. 113)

The initial findings indicated that the participants were overwhelmed by the abundance of online information. However, **PTs honed ways to evaluate and utilize online resources effectively during their practicum course.** First, **PTs made efforts to understand their students** before selecting tools and resources. This strategy aligns with Siemens et al.'s (2020) statement that "there are particular kinds of needs that people have in their general experience of learning." (Siemens et al., 2020, p. 112). Furthermore, this corroborates Brown and Poortman's (2018) claim that evaluating skills is vital for promoting knowledge exchange within PLNs.

Additionally, the findings underscore the significance of PLNs among PTs in shaping professional development. Participants leveraged their shared expertise in skills, tools, and resources to inform their teaching practices. Consistent with this, Downes (2019) conceptualizes PLNs as dynamic, self-organizing networks that generate knowledge spontaneously. Cabrero and Roman (2018) further emphasize these networks' unpredictable and evolving nature. Significantly, the study revealed a transformative shift in information-seeking behaviors among PTs. Guided by clear learning objectives, participants transitioned from passive information consumers to active, critical evaluators. This evolution underscores the development of robust information literacy skills and their application to enhance pedagogical practices.

Aside from building the PLNs, findings also revealed the importance of **discerning the validity of the online resources** that PTs use for teaching. This is a critical yet often overlooked aspect of knowledge exchange, according to Cabrero and Roman (2018), who emphasize the ability to discern valid and trustworthy online resources. This signifies that in online practice teaching, PTs are not simply sharing

knowledge content, but this involves analyzing the quality of information being distributed. This focus aligns with Wang's (2018) definition of deep learning, which requires a high degree of critical thinking combined with information synthesis and real-world application. Thus, PTs undertaking critical evaluation of resources become learners as they curate resources promoting similar learning among their students. As a result, this creates a PLN atmosphere that transcends information sharing by transforming the learning environment into a space for critical thinking and knowledge construction.

The emphasis on critical thinking and seeking knowledge further highlights the need for adaptability in an online environment. Consequently, the findings revealed that PTs struggled to adapt their teaching methods to online instruction. This challenge necessitated PTs to find the **most appropriate instructional designs and best ways to teach** students online while keeping them engaged and meeting their learning needs.

Underscoring this challenge, the need for adaptability coincides with the challenges that Antallan et al. (2022) faced in developing engaging online lesson plans and effectively utilizing learning management systems. Both studies evidently need innovative instructional strategies to maintain student engagement and accommodate diverse learning styles. Although Antallan et al. (2022) identified opportunities for PTs, such as flexible scheduling and access to online resources, the findings in this study suggest that PTs may require additional support and professional development to capitalize on these opportunities.

Similarly, Heafner (2022) compares online and in-person teacher preparation programs, highlighting the need for these soft skills as essential competencies for international online practice teaching programs. The findings of this study extend

Heafner's work by providing specific examples of interactive activities employed by PTs and their impact on the virtual learning environment. Moreover, integrating learning theories into lesson design, as evidenced in the participants' responses, is consistent with the notion of teacher preparedness. PTs demonstrated their ability to create meaningful and effective learning experiences for their students by **grounding their instructional practices in sound pedagogical principles**.

However, critically evaluating online resources is just one aspect of adaptation that is essential for PTs in online settings. To truly thrive, PTs need to hone their ability to adapt their teaching methods to this new platform, a concept known as **pedagogical flexibility** (Bates, 2016). According to Bates, simply replicating traditional online methods limits opportunities for rich learning experiences. In contrast, those who develop innovative strategies are more likely to create productive and engaging online learning environments for their students. Simonson et al. (2019) further emphasize the importance of flexibility and adaptability. They argue that successfully utilizing technology platforms requires these skills, making them key outcomes to gain from this educational shift.

This need for flexibility is particularly evident in PTs' experiences in making their presentations engaging. Since PTs are experiencing a dilemma in preparing and delivering lesson presentations, this prompted PTs to **collaborate and build connections** within their professional networks. Through this collaboration, they discovered that well-structured learning plans, incorporating engaging activities and user-friendly resources, are essential within a connective framework. Section 5.2.3, 'Thriving in the Online Classroom', provided more details of this concept.

#### 5.1.4. Fostering a Rich Ecosystem of Knowledge Exchange

Analysis of PTs' experiences reveals that this online learning platform for PTs departs from the traditional paradigm of passive screen-based lectures. Instead, it fosters an interactive learning environment that aligns with the principles of connectivism. As Downes (2012) posits, knowledge is not merely transferred but is grown and developed through interactions within a network. This platform effectively utilizes diverse tools and resources to facilitate these interactions, fostering a rich knowledge exchange. As demonstrated in Table 7, these features significantly contributed to the flow of different forms of knowledge among PTs within the online platform.

**Table 7**

*Knowledge Exchanged in Online Practice Teaching*

Knowledge Sources	Type of Knowledge	Information Exchanged	Examples
Students	Content and Cultural Knowledge	Subject matter content, sharing stories, traditions	cultural experiences [PTeachers 1, 5, and 9]
	Engagement with Lessons	Feedback on teaching methods, presentations, and lesson plans	clear communication channels and methods [PTeacher 2], presentations [PTeacher 7]
	Contextualized Learning Needs	Understanding of the material, body language, facial expressions, verbal responses, and answers to questions	need for diverse teaching strategies [PTeachers 5 and 8] becoming adaptable [PTeacher 12]
Mentors and Peers	Pedagogical Knowledge	Feedback on teaching methods, advice, and feedback on presentations, lesson plans, and classroom management	transforming lesson plans [PTeachers 1, 5, and 8]; continuous improvement [PTeachers 1, 5, and 11];

			receiving advice/feedback [PTeachers 1 and 2]
	Technological Knowledge	Best practices in online teaching, suggestions for using online tools, motivating students	effective online tools [PTeacher 11]; improving presentations [PTeachers 4 and 8]
	Content Knowledge	Clarifications on topics/subject matter content, guidance on cultural nuances	Encouraging questions and discussions [PTeachers 8 and 4]
	Cultural Knowledge	Cultural experiences, traditions, sharing stories, and daily life	Sharing experiences [PTeacher 9]
Online Resources and Platforms	Content Knowledge	Access to subject-specific information and materials	interactive activities [PTeachers 1 and 4]
	Pedagogical Knowledge	Examples of effective teaching practices and lesson plans	using online tools [PTeacher 5 and 7]; incorporating humor [PTeacher 1]
	Assessment Knowledge	Assessment strategies and tools for evaluating student learning	interactive assessment [PTeachers 4, 6, and 7]

However, it is essential to acknowledge Bates' (2019) critique of connectivism. He argues that the theory lacks clarity on the crucial elements of what is learned, why it is learned, and how it benefits both the individual and society.

The findings presented in the table corroborate Downes's (2012) assertion, revealing the various nodes that connect PTs and the type of knowledge not limited to pedagogical, technological, content, and cultural knowledge grown from the exchange in the online practice teaching network. While the dynamics of these online learning communities are complex, they also highlight the unique strengths and resources that individual participants bring to the network. According to Siemens et al. (2020), the type of knowledge present in the learners' environment represents the opportunities available to them. However, to address Bates' critique and clarify the learning outcomes, it is important to explore how learners navigated and refined their abilities to identify the most suitable and beneficial nodes within the network.

The study's findings answered this question, thereby substantiating the concept of a network in online practice teaching. **PTs actively and continuously co-created knowledge in the vast network.** This approach contrasts the traditional top-down model, where mentors such as the CTs and supervisors primarily transmit knowledge, as commonly observed in local cooperating schools. This shows that online practice teaching involves forming a network and developing skills with multiple actors. An actor illustrates a node, which signifies an element of specialization (Siemens et al., 2020). PTs in this study were able to develop interactions with the vast knowledge in the network, engaging not only with online resources but also establishing knowledge exchange with their students and peers and through feedback on their teaching practices.

In addition, **mentors and peers collaborate** to create a supportive learning environment, and PTs benefit them. In addition, CTs and supervisors also play a key role in evaluating lesson planning and delivery and providing feedback on the overall teaching approach. Aligning with their findings, successful online PT implementation necessitates a clear understanding of pedagogical principles and effective instructional strategies. Additionally, PTs require access to appropriate curriculum materials and resources to support their teaching endeavors. Experienced mentors and supervisors guide PT development through regular feedback and program evaluation.

Tuma et al. (2023) bolster this finding by highlighting a comparable dynamic in online practice teaching environments. Their research highlights the critical role of mentors in shaping correction practices, which parallels the importance of supervisors in guiding online PTs. Additionally, Tuma et al.'s observation of a shift from

mechanistic to student-centered approaches aligns with the emphasis on understanding pedagogical principles and the need for ongoing professional growth.

**PTs also gave their students feedback**, mostly on their strategy and occasionally on unfamiliar topics like the culture of the country they were teaching. They then used the knowledge to enhance future lessons and develop better pedagogies. Tuma et al. (2023) also emphasize the importance of considering student perspectives to inform teaching practices, and their findings reveal a similar cyclical process undertaken by PTs.

Online practice teaching resonated with an actively changing learning environment, highlighting the ongoing knowledge exchange. This proved that connectivism undergoes a relatively rigid process of instruction, testing, learning, and reapplication in connective pedagogies. Like professional teachers, PTs actively contributed to the knowledge network, strengthening self-directed learning and a sense of community in blended learning environments, as emphasized by Villanueva (2021). These findings emphasize the importance of Teacher Presence, characterized by timely feedback, effective communication, dedicated student support, and a thriving learning community. Siemens et al. (2020) further elaborate that in a digital landscape, the focus is on the learner's capabilities, developing skills such as directing themselves to control their learning and connecting with learning materials relevant to the goals.

#### ***5.1.5. Building Social Connections***

The findings suggest that **PTs flourish in the interplay among different nodes, including instruction, socializing, technology use, and support**. Siemens (2006) emphasizes the importance of "knowing where" and "knowing what" to access and connect information sources for knowledge creation in today's 21st century. This

implies that the learner's responsibility is to establish connections between various sources of information to construct new knowledge.

Table 8 outlines the tools and resources used to foster social interaction, including PTs' assessments of their strengths, weaknesses, and considerations when used in online practice teaching.

**Table 8**

*Tools and Resources Used for Social Engagement*

<b>Tools and Resources</b>	<b>Description</b>	<b>Strengths</b>	<b>Weaknesses</b>	<b>Considerations</b>
<b>Open communication channels</b> e.g., Zoom, Google Classroom, Line, Messenger	Online tools that enabled PTs to ask questions, share documents and ideas, and participate in discussions.	Multiple interaction channels were available, allowing for open questioning, sharing documents, and prompt feedback [PTeachers 1, 3, 4, 9, and 11]	Overreliance on text chat hindered nonverbal communication and reduced participation, especially among students with communication difficulties [PTeachers 5, 7, and 8]	Set clear guidelines for online communication, including appropriate use of emojis and questions [PTeachers 1 and 6]  Video conferencing should be used for enhanced interaction, encouraging both written and verbal participation [PTeacher 12]
<b>Presentation tools and interactive features</b> e.g., Quizizz, Wordwall, Froggy Jumps, YouTube videos	Interactive online presentations, quizzes, and online tools for creating interactive games and activities were used to introduce topics, review concepts, and	The game-like format fostered interactive learning, friendly competition, and adaptable activities aligned with diverse learning goals. [PTeachers 1, 4, 5, 7, and 9]	Online tools were inadequate for in-depth learning due to their competitive nature, which detracted from content focus. [PTeachers 2 and 11]	Use custom-designed games to introduce or reinforce concepts, followed by discussions to solidify learning and address misconceptions. [PTeachers 4, 5, and 6]

	encourage participation.			
<b>Digital badges/ Rewards</b> e.g., GIFs, stickers, and badges in learning management systems	Tools shared in class to acknowledge student effort and motivate participation.	Positive feedback, including timely recognition and digital rewards, motivates students and reinforces desired behaviors. [PTeachers 1 and 9]	Generic praise may become less effective and may not equally motivate all students [PTeachers 2, 8, and 9]	Personalize affirmations to recognize strengths and areas for growth, encourage peer recognition, and select relevant digital rewards that align with learning goals [PTeachers 1, 2, and 8]
<b>Social media platforms</b>	Strategies to acknowledge and connect with students' cultural backgrounds.	The use of social media and culturally appropriate greetings can enhance student engagement and build a sense of community [PTeachers 1, 7, and 11]	Clear social media guidelines were necessary to protect student safety and maximize the platform's benefits for all users [PTeachers 1, 6, and 12]	Utilize social media strategically with clear guidelines and incorporate virtual resources to explore diverse cultures. [PTeachers 2, 7, 11, and 12]

The table emphasizes the importance of social interaction in online practice teaching. The level of student engagement within the learning environment amplifies this importance. The findings unveiled a key strength in online practice teaching, which is **actively creating the learning network or the community of practice**. PTs engaged with the network in various ways, including activities, discussions, and timely feedback. These methods fostered an interactive learning environment, which in turn furthered motivation and high engagement. In contrast to the potential isolation in teaching internships reported by Juul-Wiese (2023), this network revealed a completely different experience. The findings revealed that **collaboration thrives in the online practice teaching network, driven by a mutual desire to learn and**

**grow together.** This is unlike traditional international practice teaching, which can be fraught with feelings of superiority and dominance, according to Juul-Wiese (2023). The findings showed that **PTs were at the heart of the network and actively used the tools to build it through social engagement.** This is extended to the mentors, students, peers, and other stakeholders who, in one way or another, have contributed to their overall learning.

The engagement in this learning environment underscores the importance of social interaction in online practice teaching. This aligns with the concept proposed by Siemens et al. (2020) that learners need not be experts until they join the communication pipeline.

Consequently, the findings reveal participants demonstrating a capacity for learning without prior expertise, actively engaging with the ideas of others through social media platforms and open educational resources (OERs) and contributing the ideas they learned to other PTs. In essence, **PTs exhibited the characteristics of open and self-directed learners.** This implies that there are numerous ways to learn in this field, which will be a continuous process. This aligns with Siemens et al.'s (2020) observation that "it is the knowledge practices that changed the most when getting into a world of global connectivity and global access to all kinds of information." (p. 113)

However, it is important to note that participants emphasized the **need for a welcoming environment** where they would not feel shy about seeking clarification, receiving constructive feedback, and participating in conversations. The research conducted by Hill (2022) and Piao and Ma (2018) is consistent with the findings emphasizing the importance of interactive and flexible methods and explicit communication channels in fostering social engagement. These elements are crucial for effective knowledge exchange and skill development and align with the importance

of mentorship. Hill (2022) emphasizes the critical role of in-person interactions in effective teacher preparation, citing the limitations of online learning in providing essential hands-on experiences, feedback, and mentorship. Piao and Ma (2018) complement this by highlighting the significance of a supportive learning environment for innovation and fostering a supportive and interactive learning community, which is essential for effective mentorship.

Frequent and open communication proved instrumental in fostering a strong sense of community among network members. **Participants actively sought guidance and support, while mentors provided timely feedback**, reinforcing trust and rapport. This collaborative dynamic aligns with the findings of Calzone et al. (2018) and Ullah (2016), who emphasize the importance of community building, particularly within the context of PT training. Ullah (2016) specifically highlights student-teacher challenges, including classroom management and teaching confidence. The open communication observed in our study suggests that fostering a supportive network can help address these challenges by providing a platform for knowledge sharing and emotional support. Moreover, Calzone et al. (2018) emphasized that the strategic use of digital platforms facilitated knowledge sharing and resource exchange, enhancing overall collaboration. These findings underscore the potential for online platforms to create supportive learning environments for PTs, enabling them to develop the necessary skills and confidence for successful teaching careers. The findings of the study are in contrast to the potential isolation observed by Juul-Wiese (2023). Instead, the learning environment reveals a dynamic network where PTs actively engage, support one another, contribute to the community's growth, benefit from mentorship, and challenge the notion of isolated online learners.

Moreover, **PTs actively engaged in self-reflection**. This served as the basis for functioning efficiently within the network. Reflecting on their assumptions, PTs fostered a commitment to open communication and a willingness to learn from others. This finding is further supported by Downes (2019), who emphasizes that the changed learner manifests the program's success. Kultawanich et al.'s (2015) finding also supports this, associating the connectivist approach with increased motivation, resulting in students pursuing their work more deeply and independently. Therefore, self-reflection is crucial in cultivating a collaborative and growth-oriented learning environment.

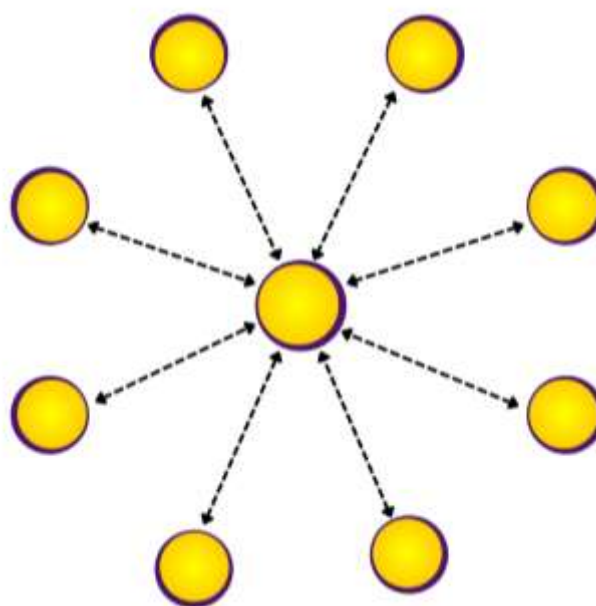
#### **5.1.6. Visualizing the Network of Knowledge**

The nodes provided critical information in this online practice teaching environment that helped us visualize PTs' learning patterns. Connecting all nodes revealed an interesting pattern resembling a star network structure. In a star network structure, the PT is in the center, acting as **a hub that connects past academic experiences and knowledge from prior coursework to ongoing and existing skills**.

Figure 6 visualizes the online PT network as connected nodes of tools and resources PTs use to learn. In addition, PT is also connected to their history or their pre-existing knowledge about remote learning, virtual internationalization, and technology use. This prior knowledge was drawn from sources such as university programs, coursework, past experiences, and learning landscape experiences, and later on, it was used to inform their instruction. This instruction connects them with their students. The center curated the knowledge sources, including seeking information from mentors, co-PTs, and information resources.

**Figure 6**

*Star Model Network Topology (Glassner & Back, 2020)*



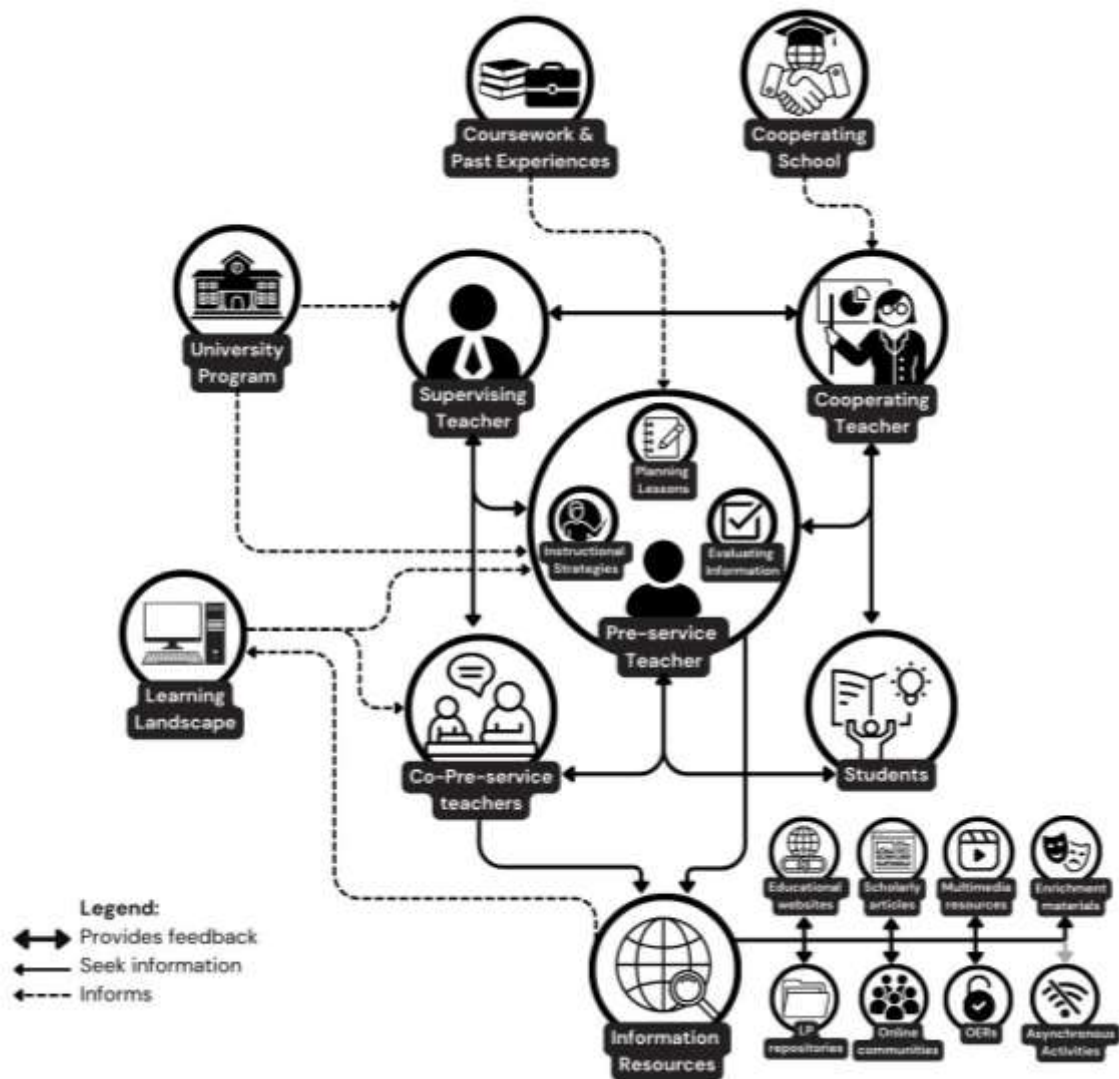
The initial network structure suggests that the PTs functioned as **knowledge integrators**. PTs proactively used their existing knowledge and skills. They sought out information and knowledge from various sources, gained a deeper understanding of learners, and enhanced their online teaching expertise.

However, a clearer picture of the network emerged upon closer examination of the connection with the other nodes. The analysis of **PT practices revealed a distributed learning landscape**. The network exhibited a **two-way flow of information** in which the PTs received feedback and informed other nodes of their knowledge and experiences. This network emphasized distributed knowledge, where the source is not centralized but rather resides across interconnected participants (Glassner & Back, 2020).

While Figure 6 initially suggested that PT was the central point of connection in this study, a deeper analysis revealed a more complex network structure involving multiple stakeholders. Figure 7 shows that online practice teaching has a distributed learning system that resembles a mesh network where information flows freely between connected points.

**Figure 7**

*Mesh Network of Knowledge in Online Practice Teaching*



This aligns with the concept of a knowledge repository, where information is spread across nodes (Siemens, 2005), and the interactions between these nodes facilitate online learning (Downes, 2012). This means that the **network in this context was not simply decentralized**. However, **it was a highly interconnected learning web** where nodes sought information, informed the other nodes, and reciprocated the knowledge through feedback. These nodes included information sources, university programs, online learning communities, the overall learning environment, past coursework, and even personal experiences of PTs with students.

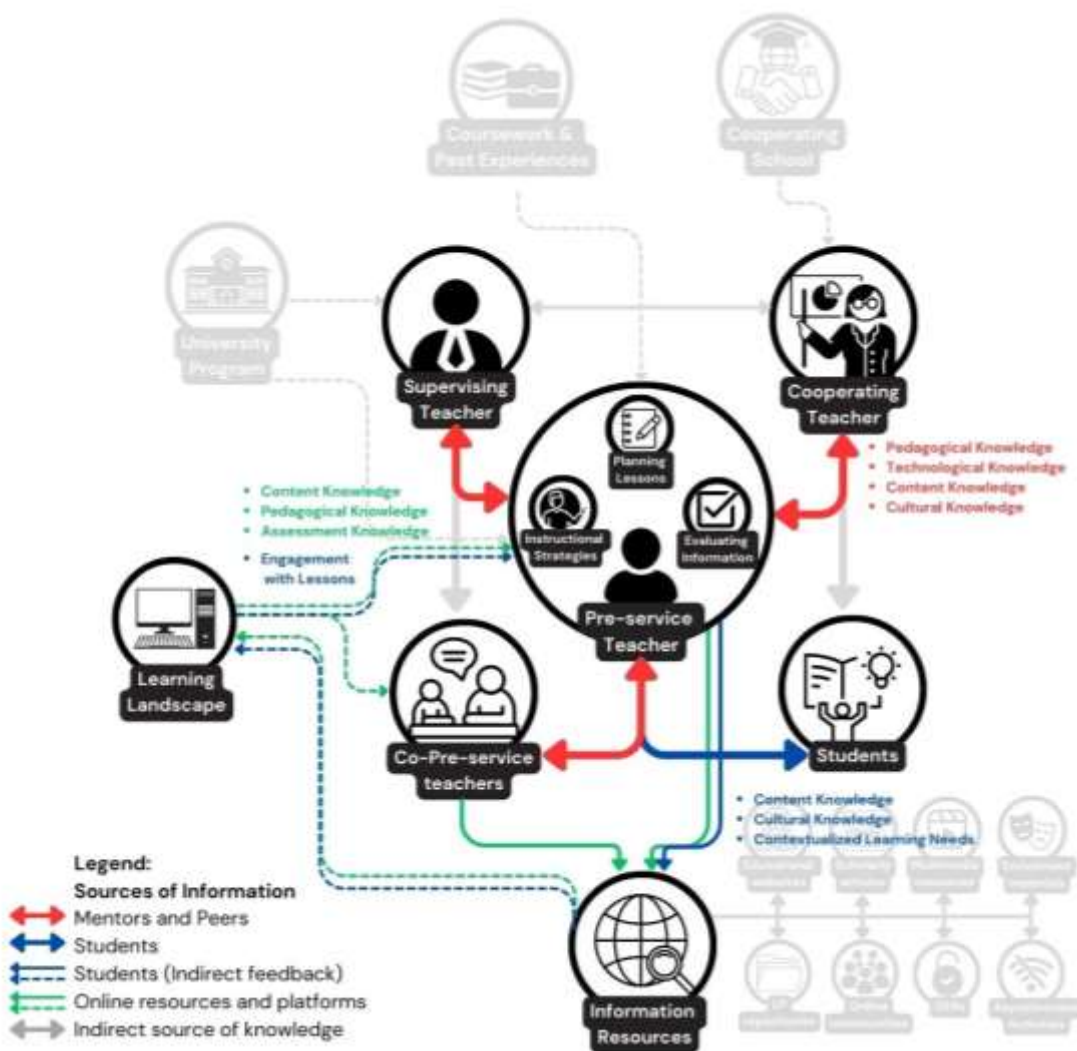
In addition, the study discovered that **various types of knowledge are exchanged**. This further indicates that success relies on knowledge in areas such as content, pedagogical, technological, cultural, and assessment knowledge. The study also showed that **this knowledge exchange fosters a student-centered learning environment**. Figure 8 visually represents the primary knowledge exchange areas within the program.

Participants embodied the principles of connectivism (Siemens, 2004, as referenced in Bates, 2019) by engaging in activities like sharing resources, exchanging feedback, and planning lessons together. This created an environment for knowledge generation and development. This mutual exchange fostered a shared space where ideas are discussed, refined, and implemented collaboratively. This goes beyond simply providing input (Díaz & Hernandez de Frutos, 2018). This network structure went beyond knowledge transmission. **This network generally positioned participants as both learners and contributors to a common pool of knowledge**. Furthermore, by sharing diverse experiences and teaching materials, PTs created a richer learning environment where meaning construction occurred, leading to a deeper

understanding. As everyone actively participates, knowledge becomes distributed across the network, creating a wider pool of expertise (Wang, 2018).

**Figure 8**

*Knowledge Exchange Dynamics in Online Practice Teaching*



A closer look at participant reflections within the network revealed how connectivism thrives due to diverse perspectives. This **online platform fostered a rich learning environment by bringing together student teachers with varied**

**backgrounds and experiences.** For example, PTs encountered a range of teaching approaches within the network. This exposure within the network challenged PTs' initial assumptions and created a more 'positive cognitive dissonance'. As Cabrero and Roman (2018) emphasize, PTs encounter different perspectives, which can be a good thing because this would prompt them to re-evaluate their approaches and foster a deeper understanding of diverse methodologies within the network.

Through the findings, PTs became active participants in both the internal (through self-reflection) and external (interpersonal and technological) aspects of the network (Aldadouh, 2015). PTs' prior experiences in a face-to-face classroom also provided invaluable feedback, allowing them to adapt their teaching strategies based on prior experiences and their current learning context. According to Cabrero and Roman (2018), this manifests that the PTs, as learners, fostered a deeper understanding of contextualized learning. Moreover, this dynamic exchange transcended the limitations of a 'one-size-fits-all' approach. It nurtured a connected community of PTs who leverage the online network to tailor instruction to the specific needs of their students. Sharing their specialized knowledge sets with their peers, PTs strengthened their network's capacity, akin to tying the knots of a vast web of connected expertise (Siemens, 2004, as cited in Bates, 2019).

While the initial discussion highlighted the platform's strengths in fostering continuous learning through feedback loops and mentor-supported knowledge co-creation, examining social interaction dynamics within the network to build a thriving online learning community is equally important.

As depicted in Figure 9, **most interactions occur within a core social network encompassing CTs, supervisors, peers, and students.** This configuration aligns with findings emphasizing the role of online learning communities in promoting

collaborative and equitable knowledge exchange (Corbett & Spinello, 2020; Piao & Ma, 2018).

**Figure 9**

*Social Engagement in Online Practice Teaching*

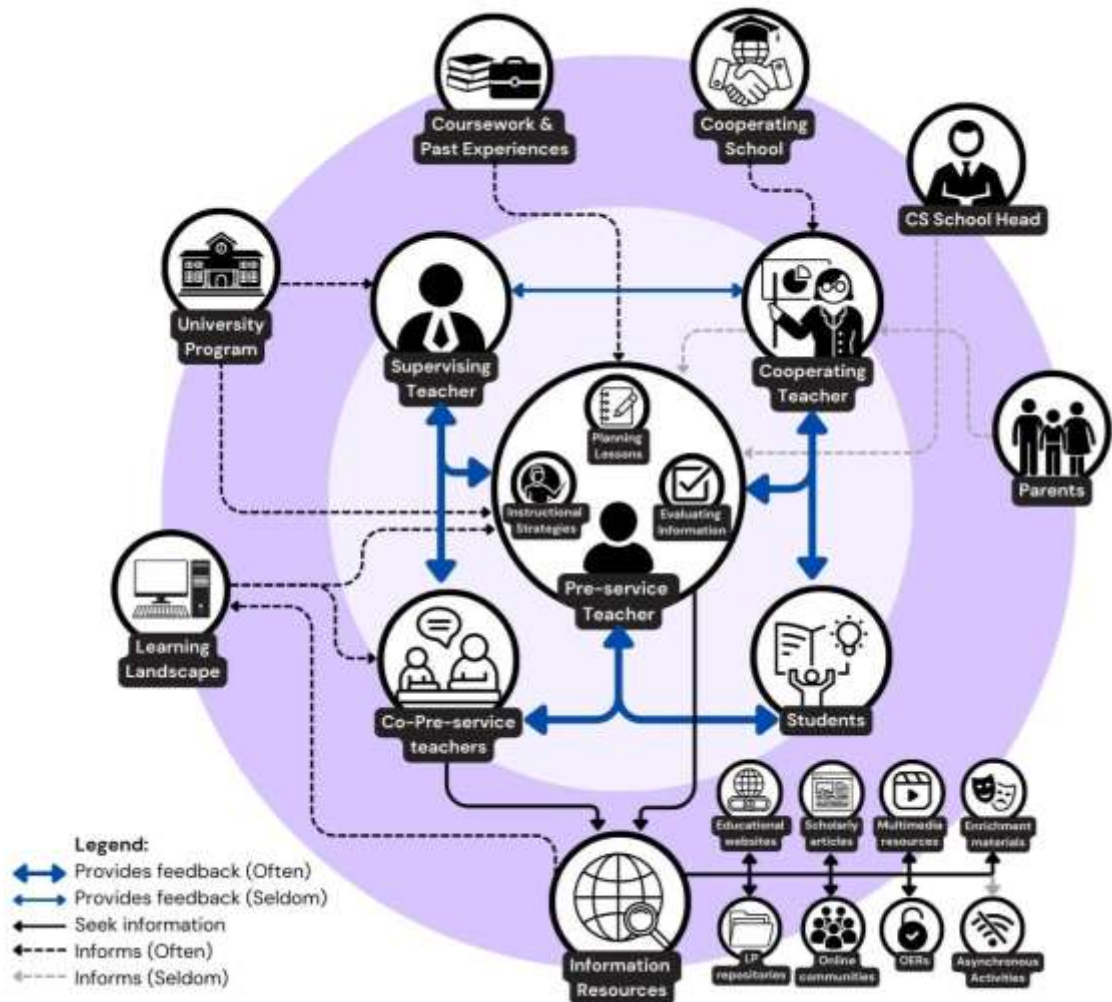


Figure 9 also demonstrates how these nodes influence PT practice. **The central social network represents the main, or most active, social interaction.** This is where the most engagement occurs, including PTs' interactions with their students, mentors, and peers. Furthermore, **the external resources that provide**

**supplementary information expand outward from the core.** Their impact is often indirect compared to the direct knowledge transfer facilitated through social interactions.

Nonetheless, **the program effectively utilized online meeting platforms to promote socialization**, an element of building strong learning communities (Cowham & Duggleby, 2019). These digital interactions are further enriched by chances to meet face-to-face, reflecting the significance of in-person connections in nurturing student-teacher bonds (Stenalt, 2023). An example of this is a PT developing a friendship with a fellow, showcasing how online relationships can transcend geographical barriers in ways not always achievable through traditional international assignments (Mantel et al., 2022).

Furthermore, **PTs shared resources and co-constructed lesson plans.** Fuchs et al. (2012) assert that this collaborative effort indicates a high level of self-directed learning. This entails **learners taking ownership of their professional development.** This collaborative spirit spills over into helping each other with technical problems and classroom management, creating a strong support network. Ultimately, this active exchange of ideas benefited everyone in the network. Spina et al. (2022) underscored the potential of active social engagement in improving teaching practices and providing a richer learning experience for their students.

Online interaction, despite its many benefits, does have some drawbacks. One concern is that the focus on communication between students, teachers, and instructors might leave out interactions with other important people involved in education. This is supported by Willis (2018), indicating that online learning can limit interactions with parents and school stakeholders compared to traditional in-person placements.

Furthermore, the IPP's activities were mostly synchronous, which overlooked the benefits of asynchronous learning materials. Stenalt (2023) suggests that effective online learning environments should integrate both synchronous and asynchronous elements. However, it is important to consider the learning context. In this case, the cooperating school did not permit asynchronous activities due to specific scheduling constraints for the English program.

## **5.2. Challenges and Coping Mechanisms**

This section further discussed PTs' challenges and successful strategies in an IPP. This exploration aligns with **RQ 2. How did the pre-service teachers cope with the challenges they encountered while teaching remotely?** Specifically, the analysis delves into the challenges and strategies for effective communication, identifying challenges and opportunities within online settings and exploring strategies for thriving in the online classroom.

### ***5.2.1. Challenges and Strategies for Effective Communication***

The findings revealed two notable aspects of the program. The first was that it promoted universal global learning, and the second was the communication difficulties that the learners' varied backgrounds brought.

**Language barriers** among PTs and students have been the most prominent challenge in online practice teaching. This led PTs to doubt their teaching abilities and frequently felt lost in the lesson when they needed to concentrate on translating for the students. Conversely, students also noticed this sense of disorientation, leading to

declined **involvement in class** and prompting the PTs to implement more effective teaching strategies tailored to the learners.

This challenge corroborates Calzone et al.'s (2018) and Tanguihan's (2021) findings on difficulties in developing online learning strategies, particularly in creating lesson plans and providing clear feedback for international students. These communication deficiencies also hindered student participation and overall learning, especially when combined with technical problems like bad internet connections (Fitriyah, 2023; Stenalt, 2023).

Despite these hurdles, the findings showed remarkable adaptability. PTs implemented simple and uncomplicated communication styles. As reflected in the findings, PTs provided students with various methods, such as **giving clear and concise communication, using visual aids and interactive slides, contextualizing instruction, and optimizing the online communication platform features** to comprehend the information.

The methods mentioned assisted PTs in surmounting language barriers, in line with Siemens et al. (2020) concept of knowledge disseminating throughout a network, where visuals reinforce connections within this online learning environment. Pando (2018) suggests that multimedia presentations enhance language comprehension in online environments. Through visual elements, PTs effectively addressed language barriers, mitigating challenges identified by Calzone et al. (2018) and Tanguihan (2021) in developing online learning strategies for international students. This approach directly countered the negative impacts of language barriers on student participation and overall learning, as documented by Fitriyah (2023) and Stenalt (2023).

Learners actively participated by seeking assistance from their peers and asking questions. This is consistent with Siemens' (2005) concept of interactivity and Mutluoğlu and Balaman's (2023) emphasis on repeated exposure, both of which are essential for effective learning.

PTs utilized culturally responsive teaching practices leveraging online platforms to expand their resources and expose students to diverse viewpoints. According to Siemens et al. (2020), embracing diversity in learning creates an environment where everyone can contribute and benefit from a range of affordances. The use of technology can further enhance these practices by enabling culturally relevant materials and real-world situations, increasing student engagement and motivation. Spina et al. (2022) argue against a 'one-size-fits-all' approach to digital interactions and support these strategies. They emphasized that distance education practitioners must pay close attention to the learners' autonomy, allowing them to connect and reflect on their practice.

The findings further emphasized the role of technology. PTs skillfully utilize tools to gain expertise. The findings corroborate Tanguihan (2021) and Fitriyah (2023), emphasizing that PTs practicing online should have tech skills to build an information network for students skillfully. Furthermore, Jeon et al. (2022) emphasize the significance of learning platforms in fostering student engagement and communication, echoing a comparable discovery.

Moreover, the study underscores the critical importance of PTs in the IPP, reflecting on student feedback and engagement. This reflection helps them improve their communication techniques and foster a positive learning atmosphere (Cadiz, 2022). This continuous cycle of learning, adjusting, and connecting aligns with the core principles of connectivism (Downes, 2012; Kultawanich et al., 2015).

The current section highlights the communication challenges and the solutions provided by the PTs, revealing the adapting patterns that effectively bridge these problems. The next section delves into the challenges of virtual classrooms.

### ***5.2.2. Challenges and Opportunities in Online Settings***

The second theme on challenges, "Instructional Divide," provided insights for this section. This delves further into the specific challenges that PTs faced and the methods they employed to prepare themselves to overcome them.

One of the main hurdles that has been identified is **maintaining student engagement** in online teaching and learning. PTs overcame this problem by **using a variety of instructional methodologies**, such as interactive tools, group discussions, and various types of assessments. These strategies aligned with the findings of Taghizadeh and Amirkhani (2022), who highlighted the importance of student engagement in online learning. Several key challenges were similar to the study findings, such as maintaining student motivation and active participation, managing various types of learners, handling non-participation, building a sense of community, and misbehaviors in online classes. They also found that PTs have clear preferences for managing different challenges. However, besides implementing various instructional methodologies, they recommended applying learner-centered strategies and collaborative tasks.

Furthermore, **PTs experienced a feeling of disconnect from their students**, leading to a need for modification in the teaching strategies employed. For example, in Tanguihan's (2021) study, technological challenges such as connectivity issues, insufficient training skills in using tools and platforms and the availability of devices, and pedagogical challenges such as accurately measuring student performances,

keeping them motivated and focused, and psychological challenges such as feelings of isolation and concerns about teaching effectiveness were highlighted. The findings call for PTs to adopt traditional methods and plan online lessons. According to Simonson et al. (2019), it is essential to take time to plan and organize the building blocks of the learning experiences when engaging at a distance. **To bridge this gap, PTs creatively adapted traditional methods for the online environment.** In this study, **PTs were able to prepare activities that used physical movements, group work, and do-it-yourself (DIY) materials and even used their talents to conduct their lesson.** This approach aligns with Smidt et al.'s (2017) emphasis on learner agency and flexibility in choosing learning tools. Educators can foster ownership and autonomy by affording learners choices in selecting resources, defining goals, and determining learning paths. Moreover, facilitating open communication and collaboration stimulates critical thinking, problem-solving, and the creation of rich learning experiences.

The reflections of PTs in this study suggested that these strategies successfully promoted engagement and participation. Interactive learning materials are supported by numerous studies in distance education (El Sabagh, 2021; Jeon et al., 2022; Ong & Ancheta, 2023). Siemens et al. (2020) further emphasized, “With a diversity of students, we expect a diversity of approaches and solutions that can be shared freely among peers.” (p. 111). This adaptability and resourcefulness align with Fitriyah's (2023) emphasis on integration skills, including using available resources. PTs should optimize the utilization of technology by incorporating multimedia elements and technological features to accommodate a variety of learning styles and maintain student engagement (Cowham & Duggleby, 2019).

### **5.2.3. Thriving in the Online Classroom**

Online classrooms offer many benefits based on PTs' reflections. However, since the IPP is a system, unique challenges still exist. Unlike the emerging challenges, these **conflicts remain unspoken**. This section delves deeper into the growth mindset and support systems that enabled PTs to triumph over these latent challenges.

The PTs identified several communication problems, including **unresponsive CTs, fear of voicing out the problems, difficulty interpreting virtual cues, and a competitive environment**. These issues highlight the program's limitations, contributing to the PTs' negative feelings.

Siemens et al. (2020) link this problem to the presence of bad actors in a network who produce outcomes unrelated to student success or the quality of student learning. This is substantiated by Downes (2019), who posits that the most successful methods are those that primarily consider the value of humanity and the importance of the relationship between the experts, as these types of settings and/or learning are fully conveyed. Additionally, Siemens et al. (2020) emphasize that the success of this network starts with the quality of the relationship between the mentors and then will be seen in the ability of the learner to explore new areas, forming new nodes that would enhance their learned skills.

Furthermore, the study underscores the significance of self-regulation in PTs' learning. The redirection of the connection from PTs to peers has proven areas that need modifications. The ability formed by the PTs is self-regulation, or what Siemens et al. (2020) identified as an acknowledgment of these individuals' specific needs in the experience. This corroborates Mlasi and Naidoo (2018), emphasizing that

'decision-making' is a 'learning process' in itself. In this context, PTs may choose to rely on their peers or other tools.

Considering the ever-changing information landscape, it is important to recognize that these elements could be significantly influenced. Downes (2019) referred to this as an emerging principle of a 21st-century system, emphasizing the necessity of personalized, inclusive, diverse, and conscious learning that fosters a global perspective.

Despite the challenges, the findings also revealed the **support network that overcomes these obstacles**. PTs discovered that sharing these problems with peers made them more feasible to solve. PTs transcended their limitations by sharing resources and solving this problem with peers. PTs in this fast-changing world should have a growth mindset. A personal mindset, as described by Herlo (2017), sees the transformation of knowledge into opportunities to learn. Following Kultawanich et al.'s (2015) model, PTs should be able to 'aggregate' or look into a variety of sources, 'recombine' these diverse perspectives, 'repurpose' these fresh concepts in their personal way, and 'feedforward' to pass on these perspectives before deciding on the final solution as they navigate online practice teaching.

The next section looked into the rich insights shared by PTs in their reflections on designing and implementing effective online learning environments.

### **5.3. Insights to Leverage Networked Learning Practices**

In the changing educational landscape, an educational program that provides its students with the necessary skills and knowledge to succeed in both conventional and online learning environments is necessary. Educational institutions offering

teacher education programs face the challenge of reevaluating their program structure and adjusting to global expectations.

This section delves into student teachers' perspectives who participated in an international program for practicing teachers using an online learning method. Delving into **RQ 3. What learnings could be drawn from pre-service teachers' reflections to leverage networked learning practices?**

### 5.3.1. Strengthening PTs Online Teaching Skills

The study's findings revealed numerous benefits derived from online practice teaching. Since this has expanded internationally, PTs were able to find tools and resources, connect with the network of experts, and also learn from the practicum process. Furthermore, the supportive online environment builds a sense of community which paved the way for their participation on this platform. However, PTs' insights focused on early training or training before the program's commencement. Other foreseen improvements and benefits of the modification in the selection are listed in Table 9.

**Table 9**

*Selection Process for International Practice Teaching*

Area for Improvement	Specific Suggestion	Benefit
Equity of access	Expand the program to more countries	More students can participate [PTeacher 1]
Candidate selection	Include evaluations from cooperating teachers	More accurate assessment of teaching ability [PTeachers 1 and 2]
Training timeline	Provide training earlier	Prepares student teachers for challenges [PTeacher 8]
Training content	Include demos of online teaching techniques	Develops technology skills and online teaching comfort [PTeacher 8]

Communication with student teachers	Earlier communication from cooperating teachers	Allows for better preparation [PTeacher 8]
-------------------------------------	-------------------------------------------------	--------------------------------------------

**PTs highlighted the need first to assess their skill sets and identify areas where they require further support.** This would further enhance their preparedness for navigating tools and interacting with people and others. Moreover, these findings call for a revision in the program implementation, integrating the selection process and early training to provide upfront training. Additionally, expanding the program to include more countries would increase participant numbers.

Practice teaching on an online platform can create **a more inclusive learning environment for aspiring teachers.** Now that there are virtual avenues, the training can be made more accessible to the learners. Mantel et al. (2022) and Marinoni and Cardona (2024) support this advancement in education field practice. They believed that these internationalization opportunities would significantly influence education policies and institution rankings and prepare future PTs to be culturally and globally responsive.

PTs require this training more than the recognition they receive from institutions. Fuchs et al. (2022) substantiate this by emphasizing the significance of self-regulated learning online and digital readiness. In the context of connectivist pedagogies, Siemens et al. (2020) support this, emphasizing that training learners to make sense of the information they gain has a high chance of solving a particular problem. This finding reinforces the suggestions made by Hill (2021), Antallan et al. (2021), and Deguma et al. (2022) that further teacher training is essential. Being new in the teaching and online fields, PTs are in a challenging situation where they are expected to navigate virtual teaching and learning without sufficient expertise.

Importantly, accessibility to this training is crucial. Applying the connectivism approach to modifying the program, the IPP program developers and facilitators should harness the best human and non-human resources possible. Research on online teaching highlights the need to leverage technological affordances fully. These technologies have demonstrated positive impacts on teacher training.

**5.3.1.1. Fostering a Culture of Continuous Learning.** Effective practice teaching, whether online or face-to-face, necessitates corrective feedback. The study's findings highlighted the critical role of feedback for PTs. While PTs have successfully adapted to the online environment, opportunities for reflection mostly happen when they meet with mentors and peers. This feedback encompasses guidance on designing lessons, developing assessment tools, and establishing rapport with learners and other stakeholders.

The insights from PTs reveal a need for a culture of continuous learning. As revealed in RQ1, PTs' most prominent activities focus more on exchanging knowledge with their inner network of peers, CTs, supervisors, and students. This finding aligns with Tuma et al.'s (2023) study, which emphasizes that teachers, including PTs, frequently teach mixed-ability classes where the effectiveness of corrective feedback is closely linked to the student's knowledge, and the skills most targeted are language development. Similarly, Antallan et al. (2022) observed that PTs establish an environment that fosters professional development and knowledge exchange. To support this culture, institutions can implement strategies such as flexible scheduling, which empowers PTs to manage their time effectively and focus on learning. Moreover, designing PT courses with interactive activities, clear learning outcomes, and accessible online resources can further enhance the learning experience.

Siemens et al. (2020) explained this need for feedback, highlighting our inherent qualities for goal orientation and our capability to follow progression to a desired outcome, which enables us to function effectively in many different kinds of work environments. As Herlo (2017) pointed out, our target is to nurture and strengthen learners' skills, including fundamental, personal management, and team-working capacities, which are essential in today's job market. This means that PTs are meeting, if not bettering, the standards of this education setup.

**5.3.1.2. Building a Stronger Foundation.** Findings revealed that PTs made efforts to create a culturally relevant learning environment despite limited resources and accessibility concerns. Even when technological hurdles came along, PTs felt that they were not alone. Peers supported them and assisted in providing the resources they lacked. However, PTs expected more support from the university, including technical support, pedagogical guidance, and resource provision.

This finding corroborates Tanguihan's (2021) findings about the disadvantages of online practice teaching amid a pandemic. Mantel et al. (2022) noted that people often perceive internships abroad as providing positive learning experiences. However, these expectations often fail to materialize. This necessitates a more strategic allocation of university funds to prioritize equipment and tools suitable for online practice.

Moreover, limited resources and logistical challenges necessitate a stronger foundation. This requires a focus on the standards set in the online teaching program. Clear program elements should be based on the program's objective, as agreed upon by the teacher education institutions and cooperating schools in their memorandum. Heafner (2022) emphasized that online and in-person educator preparation programs

should evaluate the support given to educators as they adapt to teaching and learning through technology. This reorganization would address time management challenges and ensure consistent lesson quality.

Furthermore, as Fuchs et al. (2022) emphasize, there should be a clear policy to ensure that teachers are better prepared to meet the needs of diverse students. As with some cooperating schools, they were able to provide incentives for the PTs. This calls for clear guidelines to address management challenges and ensure consistent lesson quality aligns with the established role of higher education institutions (HEIs) in providing effective teacher training, as outlined by CHED (2017).

Finally, to ensure a strong foundation in online practice teaching, Cowham and Duggleby (2019) suggest prioritizing thorough planning of the online program. This includes assessing pedagogies and quality assurance in the context of establishing online education. Management must also consider delivery, organizational setup, program staffing, policies, budget, and potential changes in management processes.

**5.3.1.3. Overcoming Technical Challenges.** The findings reveal that overcoming technical challenges is crucial for ensuring success in online environments. Furthermore, PTs raised issues such as unreliable infrastructure, rapidly evolving technology, and a lack of tech training, specifically in integrations.

This supports the results of Ullah (2016) and Rudio (2020), who emphasize the inadequacy of PT programs in technology integration, leaving trainees unprepared for online environments. Furthermore, this method needs consistent and uninterrupted internet connectivity. This is an important but sometimes disregarded feature of online education (Antallan et al., 2022).

Ullah (2016) provided early insights into the broader challenges faced by PTs, including a lack of resources. While this study did not explicitly focus on technology, the scarcity of resources can indirectly impact a teacher's ability to integrate technology effectively. Rudio et al. (2020), while concentrating on overall program perception, implicitly acknowledged the importance of the practicum environment, which can influence a teacher's exposure to and comfort with technology. Antallan et al. (2022) offered a more specific lens into the challenges faced by PTs, including time management and resource allocation issues that can indirectly impact technology integration. Their findings suggest that while PTs may have access to technology, effectively utilizing it within time constraints and with available resources presents a significant hurdle, as Yorkovsky and Levenberg (2022) emphasized the importance of a support system for navigating the rapidly changing educational technology landscape.

These studies discuss the need for strong technology integration support within teacher education programs. This includes providing access to technology and comprehensive training on its effective pedagogical application, addressing infrastructure challenges, and ensuring ongoing professional development opportunities.

To address these challenges effectively, a multi-pronged approach is essential. A multi-pronged approach can be used to address these challenges (as revealed by the participants' insights). This includes enhanced technical skills and resources to keep PTs informed about the latest educational technologies and best practices, as Glassner and Back (2020) and Bonderup Dohn et al. (2018) explored. Developing these skills and providing access to relevant resources can prepare PTs to stay ahead

of trends and prioritize features that enhance student engagement, as suggested by the study.

Furthermore, introducing PTs to a wider range of online platforms fosters technological versatility. This prepares PTs for the diverse online learning situations they may encounter. Moreover, as Taghizadeh and Amirkhani (2022) noted, this is particularly relevant for programs like the IPP with internationalization goals.

Also, fostering collaboration and sharing knowledge among PTs can significantly enhance their learning experience. Networked learning fosters collaboration and knowledge sharing among PTs within the program and with international peers through online platforms (Fitriyah, 2023; Taghizadeh & Amirkhani, 2022; Tuma et al., 2023). Networked learning further enhances the PT experience by exposing them to various cultures and teaching methodologies.

Addressing these technical hurdles proactively has the potential to develop strong blended pre-service teaching programs. These programs will prepare future educators for the technological realities of contemporary classrooms, both locally and internationally.

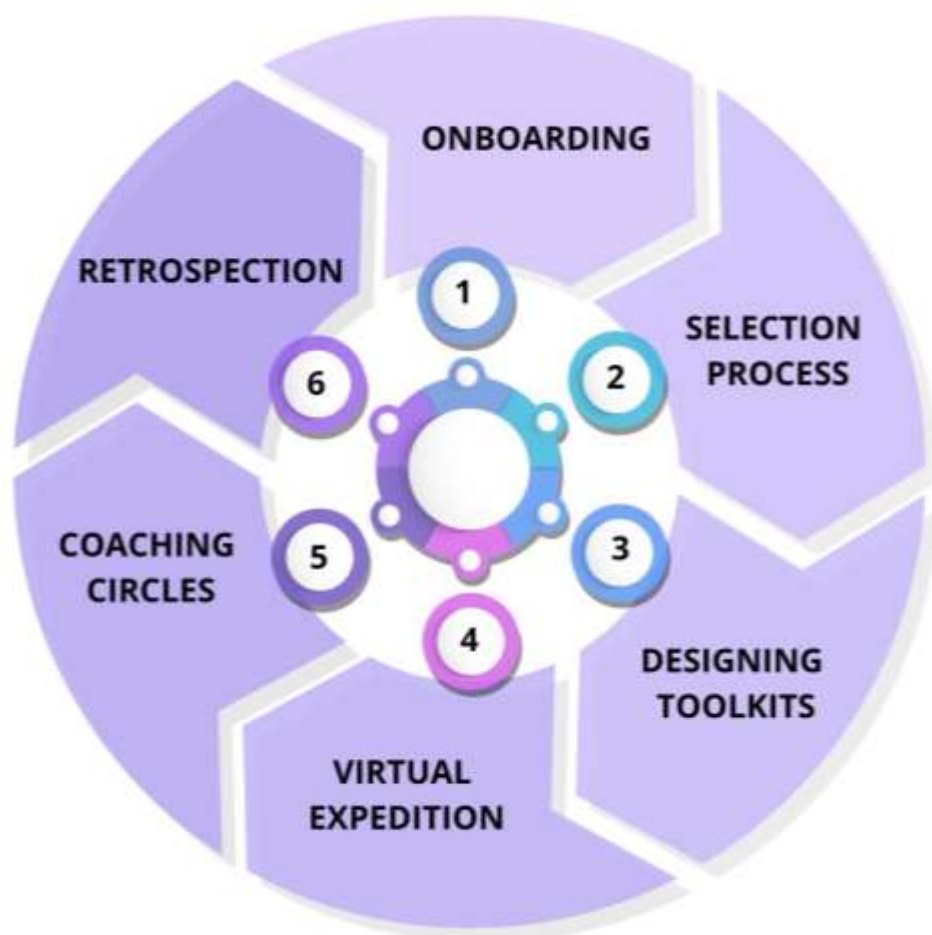
#### **5.4. Online Practice Teaching Program Model**

Drawing on the identified themes and various discussions of the results, this study proposes a program model for online practice teaching grounded in connectivist principles. While acknowledging Bates' (2019) critiques on the clarity of connectivism's learning outcomes and societal benefits, this model incorporates a process-oriented approach to addressing communication, instructional problems, and other issues in online practice teaching.

Figure 10 presents the proposed Program Model for Online Practice Teaching. The program model integrates the process model to provide a comprehensive framework. The process model outlines the sequential steps involved, from initial planning to evaluation. This ensures a logical progression of activities and facilitates effective program management.

**Figure 10**

*Program Model for Online Practice Teaching*



The program model is organized into six phases, which proceed sequentially. These levels begin with (1) **Onboarding**. This phase involves an orientation and a

pre-assessment of the PTs' content, technology, pedagogical skills, and comfort level in using digital tools. Furthermore, this provides a primer on online practice teaching, the internationalization program, mentors, collaborating schools, and internationalization program participants. This is to prepare PTs to communicate with students from various backgrounds online. This phase will also cover the required online tools and platforms, procedures, course design, delivery, and assessment. Considering the accessibility of the primer is crucial since it requires offering alternate formats for information and using assistive technology.

The next step is the (2) **Selection Process**. This phase entails gathering and linking the mentors' and PT profiles. This will ensure that PT is correctly aligned regarding learning styles, subject matter, and other requirements and development areas. Peer mentorship from those who have experience may also provide guidance and support in this process.

The following step will be (3) **Designing Toolkits**. This phase will prepare PTs to explore tools and resources for preparing lesson plans, instructional materials, and assessment tools. This also involves assisting pre-service teachers with developing online lesson plans aligned with the curriculum standards and including elements of interactivity. Assistance will be offered to solve instructional issues and other disputes, such as integrating tools and online resources, such as software and internet connection support, to solve instructional issues and other disputes. Furthermore, early intervention in online techniques and technology training assistance will increase peer cooperation in lesson planning, design, and designing traditional and virtual instructional materials.

The model's main emphasis is (4) **Virtual Expedition**, in which the PT applies the principles and skills they gained in the field into practice. This includes socializing

and interacting with students. The virtual classroom experience employs planned instruction, tools and resources, and assessment techniques. It is vital to highlight that this should improve student learning by offering PTs autonomy and choice throughout their practice. This includes real-time feedback from mentors after their demonstration lessons.

The next phase is the (5) **Coaching Circles**, which includes regular meetings with mentors, peers, and administrators for direction, feedback, and further assistance. PTs will be encouraged to discuss emerging innovations and best practices online. Strengthening stakeholder interaction with parents, administrators, and the larger school community may improve the practical teaching experience and the program's overall outcomes. Expanding stakeholder engagement with parents, administrators, and the broader educational landscape can enrich the program's overall effectiveness. Furthermore, these recorded sessions will be scheduled following the partner school's calendar to avoid scheduling issues. Furthermore, recorded meetings will resolve any issues arising from missed appointments with cooperating schools.

Finally, (6) **Retrospection** comprises reflective practice. This involves creating action plans using formative tests or tools to track self-improvement and student engagement and implementing a feedback system that promotes the iterative process of information exchange by prompting learners to reflect on acquired knowledge. Moreover, a comprehensive assessment of PTs' performance will be conducted to provide recommendations for enhancing their future progress.

Furthermore, the online practice teaching model must consider technological concerns such as adequate online teaching and learning tools, internet connectivity, and necessary technical support personnel. Quality assurance would be a major emphasis. Each program offering should identify areas for improvement, and feedback

mechanisms and collaboration with foreign cooperating schools should be coordinated. This would include the availability of asynchronous communication options such as discussion forums or email to accommodate different learning styles and time zones.

Envisioned as a collaborative, lifelong learning journey, the program model aligns with Downes' (2019) connectivist emphasis on learning as practice and reflection. It fosters supportive networks, diverse perspectives, and collaborative problem-solving to stimulate the knowledge-building interactions central to connectivism. The approach emphasizes real-world application and lifelong learning to guarantee that PTs remain current on technical developments and pedagogical development and reflect on their progress, therefore ensuring that they are well-prepared in the field of teaching.

This chapter delved into the lived experiences of PTs in online practice teaching, examining the learning tools and resources and how they seek information, exchange knowledge, and engage in the online network. Furthermore, this chapter presented the challenges encountered by PTs during remote teaching and their adaptive patterns of overcoming them. Building upon the identified themes and discussions, the chapter concludes by proposing a program model for online practice teaching grounded in connectivist principles.

The subsequent chapter presented the conclusions drawn from the research findings and offered recommendations for enhancing online practice teaching programs. These recommendations were grounded in the insights gleaned from the PTs' experiences within the current program context.

## Chapter VI

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### 6.1. Summary of Findings

Online practice teaching enables pre-service teachers (PTs) to gain experience in remote instruction through a program designed around connectivism. These programs are based on connective pedagogies, which emphasize networked learning strategies. Through virtual internationalization in selected Southeast Asian countries, tertiary-level institutions that are advancing teacher education programs have sought avenues to provide practicing teachers with global, cross-cultural, and diverse learning opportunities through Internationalization Programs for Practicing Teachers (IPP).

The potential of online practice teaching has surged both pre- and post-pandemic. However, a notable gap exists in the literature regarding the practical application of connectivist principles to teaching within this context. This gap has impeded our comprehension of how PTs learn and establish connections in these online environments.

Consequently, the primary goal of this investigation was to explore and understand the lived experiences of PTs in online practice teaching programs. The principles and characteristics of connectivism were utilized as a framework to comprehend the probable benefits and challenges associated with online practice teaching experiences, particularly in the areas of information seeking, knowledge exchange, and social engagement.

The study employed a qualitative phenomenological-hermeneutic approach to discover and understand the lived experiences of the twelve (12) PTs who engaged

and completed their online practice teaching in Thailand schools offering Bilingual English Programs.

The study utilized qualitative data collection methods to gather PT reflections, namely: (1) focus group discussions (FGD) using Farrell and Macapinlac's Reflective Framework (2021) to record PTs' collective reflections; (2) one-on-one interviews following Seidman's (2013) phenomenological interview phases to gain a more in-depth understanding of the participants' experiences; and (3) journal entries that provided valuable background information and details about their program experiences. Triangulation was achieved by integrating multiple data sources to eliminate researcher bias. The study followed a six-phase thematic analysis approach outlined by Braun and Clarke (2020).

The findings suggest that teacher education programs incorporating online practice teaching using connectivist pedagogies provide valuable opportunities for PTs to acquire the requisite skills to succeed in virtual classrooms. PTs used both human and non-human resources. They benefited from the various tools for lesson planning, communication, presentation, and interactive tools for assessment. This also includes multimedia resources, open educational resources (OER), and those shared by experts in the online community through social media platforms to enhance virtual engagement.

The study revealed a cyclical process of seeking information to better understand their students' needs, build expertise, particularly soft skills, and refine their knowledge. This cycle motivated them to find essential tools to strengthen their Professional Learning Networks (PLNs) and teaching practice. During their practicum, the PTs honed ways to evaluate and utilize online resources effectively by understanding their students' needs, discerning the validity of the online resources

according to their needs, and collaborating in the network to adapt the most appropriate instructional designs.

Moreover, the PT practices analysis revealed a mesh network with a distributed learning landscape, and some connections have two-way, freely flowing knowledge. This knowledge encompasses content, pedagogical, technological, cultural, and assessment aspects. The internet tools enhanced this even further by encouraging a supportive community from peers, mentors, and student feedback. Likewise, PTs collaborated on instructional designs, lesson plans, and best practices.

While online practice teaching provides a robust foundation for an interconnected learning environment, certain limitations impede its effectiveness. Communication difficulties due to language barriers and cultural differences were prevalent. This sense of disorientation led to a decrease in the student's involvement in class. Maintaining student focus and engagement in the virtual setting proved to be another challenge, and these experiences gave the PTs a feeling of disconnect with their students. The study also discovered the unspoken conflicts. Some PTs reported unresponsive CTs, anxiety about expressing openly their issues with CTs, difficulty deciphering CT's virtual signals, and an atmosphere of competition with colleagues.

Additionally, PTs believed that their knowledge of digital instruments and skills was inadequate for online practice. These limitations also include less interaction with parents, administrators, and the broader educational landscape and a potential overemphasis on synchronous activities that could miss the benefits of asynchronous learning for students. PTs face numerous challenges when navigating online classrooms.

The study found various strategies to overcome these challenges and strengthen the connectivist approach in online practice teaching. Clear communication

using simple language, visual aids, and interactive slides, contextualizing instruction, and optimizing the online communication platform bridge these communication gaps.

Moreover, PTs challenged themselves to prepare a variety of instructional methodologies, such as activities that used physical movements, group work, and do-it-yourself (DIY) materials. They even used their talents in the conduct of their lesson to cater to diverse learning styles. PTs' reflective practice improved the online learning experience.

Furthermore, the study found that PTs are adapting their instructional approaches to accommodate the specific needs of their students, regardless of whether they received training in elementary or secondary-level education. PTs who were specifically prepared for primary education, in particular, recognize the need to adapt their lesson plans and material to cater to the distinct learning styles of adult learners. This adjustment is critical since most participants in the Internationalization Program are secondary and post-secondary students. Despite the students' weak English proficiency, PTs need to tailor their lessons to a basic level.

Most PTs recommended enhancements to the teacher education programs and the training itself. The findings recommended a revision to the program implementation, which should integrate the selection process and early training to provide a more comprehensive training experience. The PTs' insights also focused on their anticipated university assistance—technical help, instructive guidance, infrastructure, and resource allocation, among other things.

Building on these findings, the study proposes a program model leveraging connectivism principles for both local and international PTs participating in online practicum experiences.

## 6.2. Conclusions

This study establishes significant contributions to the field of education and distance education. The findings confirm that online training provided for PTs reinforces alignment with the key principles of connectivism, specifically in building knowledge networks, continuous learning, and using technology for learning. This alignment is significant because it highlights how online environments can effectively support connectivist learning principles.

The study challenges the traditional view of knowledge as residing solely within individuals. Instead, this knowledge resides in the connections between information, not solely within individuals. PTs in this study actively constructed knowledge networks by connecting information from online resources, student experiences, and collaboration. This directly aligns with connectivism's notion of knowledge as a networked construct built through connections and exchanges within a learning community.

Another key tenet of connectivism is the emphasis on continuously updating knowledge networks based on new information and experiences. The online platforms found in this study revealed feedback loops and provided access to diverse resources. Furthermore, the online environment highlighted the importance of tools like online resources, collaborative platforms, and multimedia tools to support information-seeking, collaboration, and knowledge exchange.

The proposed online practice teaching program model incorporates connectivist principles by emphasizing the interconnectedness of the distributed knowledge within the learning communities fostered by the online environment. Furthermore, the study uncovered a cyclical process where PTs sought information to understand their students' needs. This implies that PTs need a strong foundation in

content, pedagogical, and technical knowledge from professional education courses before engaging in online practice teaching.

Furthermore, the knowledge PTs gained about their students inspired them to seek essential tools to strengthen their PLNs and teaching methods. The findings indicate that pre-service teachers (PTs) are effectively adjusting their teaching techniques to accommodate the various learning needs of their students, exhibiting flexibility. Regardless of their particular expertise, PTs adapt their instructional methods to accommodate adult learners' distinct learning styles and backgrounds. The capacity to adapt is essential, considering that most IPP participants are secondary and post-secondary education students who commonly have a weak mastery of the English language.

This finding demonstrates a critical approach to resource curation and underscores the importance of a student-centered approach in guiding teacher development. Improving soft skills, pedagogical flexibility, and self-regulation would also strengthen the PLNs. Furthermore, encouraging reflective practice allows PTs to analyze and adapt their methods to create a learning environment that fosters connection and knowledge exchange.

The online practice teaching environment also fostered a vibrant network of PTs, enabling the free exchange of knowledge. This demonstrated its potential to foster social presence among PTs through open communication and has been instrumental in creating a supportive learning network. This dynamic community of PTs spurred innovative teaching practices and a supportive learning community.

These discoveries are important in improving online teacher education programs. PTs can enhance online practice teaching by implementing strategies focused on clear communication, varied instructional approaches, collaboration,

feedback, and continuous reflection on their practice. These point to areas that still need improvement, such as encouraging teachers to sharpen their critical evaluation skills, integrating input from peers, mentors, and students, and extending access to a wider range of internet resources.

To optimize the potential of online practice teaching, teacher education programs must be studied to incorporate specific skills and knowledge, while universities should provide adequate support and resources.

### **6.3. Recommendations**

This chapter presents recommendations that aim to improve the theoretical comprehension, methodological approaches, and practical applications of online practice teaching. The theoretical implications and practical applications revealed in the study findings serve as the foundation for these recommendations.

#### **6.3.1. Theoretical Recommendations**

The study's findings have established a strong link between online training for PTs and the fundamental principles of connectivism. Therefore, it is suggested that connectivist principles be integrated into the IPP to enrich its theoretical foundation. Future studies can also investigate how other social learning theories can provide further opportunities.

Since connectivism varies in every network connection, teacher education programs should continue exploring this network to better prepare PTs with the skills to navigate the global online learning landscape. This includes studying cognitive and soft skills and their overall impact on practice. Furthermore, the study's scope is limited to identifying soft skills, as the data collected primarily focuses on their communication

and influence on the learner's learning process. Therefore, gaining a deeper understanding of the cognitive skills developed during this process would be beneficial. Future research could also explore the role of technologies and virtual communities in interactivity and engagement.

This study recommends integrating diverse perspectives using the proposed model and gathering additional data to understand the long-term impact of online teacher training on student learning outcomes to determine the opportunities this distance education provides.

### ***6.3.2. Methodological Recommendations***

This study suggests a more comprehensive understanding of online practice teaching. Socio-cultural research, such as case studies, would provide in-depth details and support recognizing optimal practices with specific examples. Furthermore, ethnographic research would immerse one in the group of PTs and their online learning environment.

A mixed research approach can integrate sequential explanatory or concurrent methods to understand the model's effectiveness comprehensively. The researcher also suggests conducting longitudinal or comparative studies to evaluate the long-term impact and compare the outcomes. Furthermore, further studies can explore cultural contexts to pinpoint the universal and culturally specific elements of online teaching in international programs.

### ***6.3.3. Practical Recommendations***

Programs should incorporate practical steps and online components to prepare PTs for online practice teaching and learning. This study suggests a type of training

that emphasizes developing digital and pedagogical skills and intercultural competence. This training should provide PTs with targeted professional development opportunities focusing on teaching the type of learners and their learning needs. This encompasses designing online lessons, effective virtual classroom management strategies, and using online tools and resources. Furthermore, continuous mentorship and program support must be provided to facilitate PTs' transition to the online environment.

Virtual internationalizations such as the IPP programs should ensure that the IPP curriculum corresponds with the learners' requirements and learning preferences. Authentic and practical learning experiences to improve student engagement and the applicability of the content. Furthermore, a balance of synchronous and asynchronous activities should be used to cater to different learning styles. Expanding stakeholder engagement with parents, administrators, and the broader educational landscape can enrich the program's overall success.

The study recommends that universities that offer teacher education programs invest in technological infrastructure to accommodate PTs' accessibility needs. They must allocate resources to support the integration and implementation of online technology.

Finally, explicit guidelines should be established for programs and international teacher education partners to ensure that the visions and objectives align, better-preparing PTs for today's globally connected online classrooms.

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# APPENDICES

## Appendix A

### Communication Letter

	<b>FACULTY OF EDUCATION UNIVERSITY OF THE PHILIPPINES OPEN UNIVERSITY</b>	 RECEIVED MLUC-RECORDS FOI-155 DATE: 03/08/2024
		Maabas, Los Baños, Laguna 4031 (049) 536 6001 to 06 loc. 830, 831; 536-6009
March 8, 2024		
<b>DR. EDUARDO C. CORPUZ</b> Chancellor DMMMSU-MLUC		
Through: <b>DR. CEDRIC ANTHONY E. OCHOCO</b> Dean, College of Education		
Dear Sir,		
I am Daniel P. Ong Jr., a Master of Distance Education (MDE) student at UPOU. I am writing to request your approval for the conduct of my thesis titled " <b>Lived Experiences of Pre-service Teachers in Online Practice Teaching: An Exploration of Connectivist Pedagogy</b> " at the Mid La Union Campus College of Education. Specifically, I am seeking permission to <b>interview pre-service teachers who participated in the online practice teaching component of the Internationalization Programs</b> conducted by the campus. I also seek permission to use their <b>Practice Teaching Journals</b> for this research purpose.		
The DMMMSU Research Ethics Committee (DMMMSU-REC) has granted Ethical Clearance dated March 7, 2024, in accordance with the study protocol. I believe that this research holds promise for offering valuable insights that could benefit the academic community and enhance the advancement of teacher education programs. Your approval and support for this research project would be greatly appreciated.		
Attached to this letter are the Research Abstract and the Ethical Clearance of the study. Thank you for considering this request. I look forward to your positive response.		
Respectfully Yours,		
<b>DANIEL P. ONG JR.</b> MDE Student, UPOU		
Approved: 		

## Appendix B

### Informed Consent Sample Letter

#### Greetings, online pre-service teachers (PTs),

You are invited as a participant in a study titled “**Lived Experiences of Pre-service Teachers in Online Practice Teaching: An Exploration of the Connectivist Pedagogies**”. This study is being conducted by Daniel P. Ong Jr., a Master of Distance Education (MDE) student at the University of the Philippines Open University (UPOU), as his final requirement to complete the MDE program. The content, methodology, and ethical considerations were reviewed by the UPOU panel members and my research adviser, Assoc. Prof. Juliet Aleta R. Villanueva, Ph.D., Chair of the Diploma and Master of Arts in Social Science Education Programs and Faculty of Education Faculty.

You are welcome to participate in this study because your background and experience can contribute much to our understanding and knowledge of leveraging networked learning for effective practice teaching.

*Pagbati, mga online pre-service teachers (PTs)!*

*Ikaw ay iniimbitahan bilang isang participant sa isang pag-aaral na pinamagatang “Lived Experiences of Pre-service Teachers in Online Practice Teaching: An Exploration of the Connectivist Pedagogy”. Ang pag-aaral na ito ay isinasagawa ni Daniel P. Ong Jr., isang mag-aaral ng Master of Distance Education (MDE) sa Unibersidad ng Pilipinas Open University (UPOU). Ang nilalaman, pamamaraan, at etikal na pagsasaalang-alang ay sinuri ng mga miyembro ng panel ng UPOU at ng aking tagapayo sa pananaliksik, si Assoc. Prof. Juliet Aleta R. Villanueva, Ph.D., Tagapangulo ng Diploma at Master of Arts sa Social Science Education Programs at Faculty of Education Faculty.*

*Inaanyayahan kang makilahok sa pag-aaral na ito dahil sa palagay namin ay malaki ang maitutulong ng iyong background at karanasan sa aming pag-unawa at kaalaman sa paggamit ng networked learning para sa epektibong practice teaching.*

#### Goal of the Study

The primary aim of the study is to understand the lived experiences of PTs in online practice teaching in terms of connectivist pedagogies. Specifically, the questions for the interview will focus on (1) how pre-service teachers utilize the learning tools and resources to seek information, exchange knowledge, and engage in social interaction, (2) how they cope with the challenges they encounter while teaching remotely, and (3) gather inputs to enhance the instructional delivery of the Internationalization Program on Practice Teaching (IPP) for practicum teachers.

#### Layunin ng Pag-aaral

*Ang pangunahing layunin ng pag-aaral ay upang maunawaan ang kakanyahan ng mga karanasan ng mga guro sa online practice teaching sa mga tuntunin ng connectivist pedagogies. Ang mga tanong para sa panayam ay tututunon sa (1) kung paano ginagamit ng mga guro sa pagsasanay ang mga tool at resources upang maghanap ng impormasyon, makipagpalitan ng kaalaman, at pakikipag-ugnayan, (2) kung paano nila haharapin ang mga hamon na kanilang kinakaharap habang*

*nagtuturo nang malayuan, at (3) mangalap ng mga input upang mapahusay ang paghahatid ng Internationalization Program on Practice Teaching (IPP) para practicum teachers.*

### **Procedure and Risks**

Participation in this study is voluntary. If you agree to participate in this study, you will participate in focus group discussions (FGD) together with the other participants, and a series of one-on-one interviews starting March to April. You will receive the schedule and your assigned groups a day after all participants have submitted their signed Informed Consent Forms. Your decision not to participate will have no effect on your employment or any work-related assessments or reports. Even if you consented to participate initially, you may subsequently change your mind and withdraw.

Moreover, FGD will be scheduled to help you reflect on the questions and bring out the meaning of your lived experiences. The researcher will not ask you about matters unrelated to your online practice teaching experience, and you do not have to share any knowledge that you are not comfortable sharing. Participants will be requested not to use their names and identifiable information. We will rigorously follow anonymization processes to minimize traceability. However, please be aware that, while the researchers will take every measure to protect the anonymity of the data, the nature of focus groups precludes them from guaranteeing it. The researchers would like to remind participants to respect the privacy of their fellow participants and not repeat what is said in the focus group to others.

The interviews and FGD will be video-recorded to ensure the accuracy of what is said. If you take part in the study, you are free to ask that the recording be paused/stopped at any time. You can decide whether to speak or just how much you would like to talk about during the group. You may leave the FGD at any moment. Video recordings of the FGD will be kept on a password-protected computer of the researcher. After the FGD is typed, the recordings will be discarded. The typed transcription will be saved on a password-protected computer, while any printed copies will be placed in a closed filing cabinet in the office. Only the researcher will have access to the recording and its textual form.

The interview and FGD will take place over 2 months. During that time, we will visit you for the interview at 2-day intervals, and each interview will last for about one hour. The FGD will be about one and a half hours.

### ***Pamamaraan at Mga Panganib***

*Ang paglahok sa pag-aaral na ito ay boluntaryo. Kung sumasang-ayon kang lumahok sa pag-aaral na ito, lalahok ka sa focus group discussion (FGD) kasama ang iba pang kalahok at isang serye ng mga one-on-one na interview simula Marso hanggang Abril. Matatanggap mo ang iskedyul at ang iyong nakatalagang grupo isang araw matapos maisumite ng lahat ang kanilang Informed Consent Form. Ang iyong desisyon na hindi lumahok ay walang epekto sa iyong trabaho o anumang mga pagtasa o ulat na may kaugnayan sa trabaho. Kahit na pumayag kang lumahok sa simula, maaari mong magbago ang iyong isip at umatras.*

*Bukod dito, ang FGD ay naka-iskedyul upang tulungan kang pag-isipan ang mga tanong at ilabas ang kahulugan ng iyong mga karanasan sa buhay. Hindi ka tatanungin tungkol sa mga bagay na walang kaugnayan sa iyong karanasan sa pagtuturo sa online, at hindi mo kailangang magbahagi ng anumang kaalaman na hindi ka komportableng ibahagi. Hihilingin sa mga kalahok na huwag gamitin ang*

*kanilang mga pangalan at anumang pagkakilanlan. Mahigpit naming susundin ang mga proseso ng anonymization upang mabawasan ang traceability o pagkakilanlan. Gayunpaman, mangyaring magkaroon ng kamalayan na, habang ang mga mananaliksik ay gagawa ng bawat hakbang upang protektahan ang hindi pagkakakilanlan ng data, ang likas na katangian ng mga pokus na ay humahadlang sa kanila sa paggarantiya nito. Nais ipaalala ng mga mananaliksik sa mga kalahok na igalang ang privacy ng kanilang mga kapwa kalahok at huwag ulitin ang sinabi sa focus group sa iba.*

*Ang mga panayam at FGD ay irerecord gamit ang video upang matiyak ang kawastuhan ng sinabi. Kung makikibahagi ka sa pag-aaral, malaya kang hilingin na i-pause/ihinto ang pag-record anumang oras. Maaari kang magpasya kung magsasalita o kung gaano mo gustong pag-usapan ang tungkol sa grupo. Maaari kang umalis sa FGD anumang oras. Ang mga video recording ng FGD ay itatago sa isang computer na protektado ng password ng mananaliksik. Pagkatapos ma-type ang FGD, buburahin ang mga recording. Ang nai-type na transkripsyon ay ise-save sa isang computer na protektado ng password, habang ang anumang naka-print na mga kopya ay ilalagay sa isang closed filing cabinet sa opisina. Ang mananaliksik lamang ang magkakaroon ng access sa recording at sa textual form nito.*

*Ang panayam at FGD ay magaganap sa loob ng 2 buwan. Sa panahong iyon, bibisitahin ka namin para sa panayam sa 2-araw na pagitan, at ang bawat panayam ay tatagal ng halos isang oras. Ang FGD ay magiging halos isa't kalahating oras.*

### **Benefits**

Participating in this research study will not offer direct benefits to you. However, by taking part, you will contribute to the broader understanding of networked learning. Your involvement will help institutions that offer teacher education programs to enhance the quality of instruction for online PTs.

### **Benepisyo**

*Ang pakikilahok sa pag-aaral na ito ay hindi mag-aalok ng direktang benepisyo sa iyo. Gayunpaman, sa pakikibahagi, makakapag-ambag ka sa mas malawak na pag-unawa sa networked learning. Ang iyong pakikilahok ay makatutulong sa mga institusyong nag-aalok ng mga teacher education programs sa pagpapahusay ng kalidad ng pagtuturo para sa online PTs.*

### **Confidentiality**

In compliance with RA 10137, the Data Privacy Act of 2012, please be informed that all basic information will not be shared with third parties and will be used as part of the purpose of the study. If you engage in this study, the researcher will keep the information you disclose to us strictly secret to the utmost degree permitted by law.

### **Pagiging kompidensyal**

Alinsunod sa RA 10137, ang Data Privacy Act of 2012, mangyaring ipaalam na ang lahat ng pangunahing impormasyon ay hindi ibabahagi sa mga partidong hindi kaugany sa pananaliksik na ito at gagamitin bilang bahagi ng layunin ng pag-aaral. Kung makikibahagi ka sa pag-aaral na ito, pananatiliing lihim ang impormasyong ibibigay mo sa antas na pinahihintulutan ng batas.

### **Contact Information and Persons for Inquiries**

If you have any questions about this study, please contact Mr. Daniel P. Ong Jr. at 0946-8322-721 or email at [dpong2@up.edu.ph](mailto:dpong2@up.edu.ph). This proposal has been reviewed and ethical approval was granted by the Research Ethics Committee (REC) of the state university where you completed the online practice teaching program. The REC is a committee whose task is to make sure that research participants are protected from harm. If you have questions about your rights as a research participant, you may contact the REC at [rec@dmmmsu.edu.ph](mailto:rec@dmmmsu.edu.ph).

### ***Impormasyon sa Pakikipag-ugnayan at mga Taong Pagtatanungan***

Kung mayroon kang anumang mga katanungan tungkol sa pag-aaral na ito, mangyaring makipag-ugnayan kay G. Daniel P. Ong Jr. sa 0946-8322-721 o mag-email sa [dpong2@up.edu.ph](mailto:dpong2@up.edu.ph). Ang proposal na ito ay nasuri at ang etikal na pag-apruba ay ipinagkaloob ng Research Ethics Committee (REC) ng state university kung saan mo natapos ang online practice teaching program. Ang REC ay isang komite na ang gawain ay tiyakin na ang mga kalahok sa pananaliksik ay protektado mula sa mga posibleng panganib. Kung mayroon kang mga tanong tungkol sa iyong mga karapatan bilang kalahok sa pananaliksik, maaari kang makipag-ugnayan sa REC sa [rec@dmmmsu.edu.ph](mailto:rec@dmmmsu.edu.ph).

The signature you provide on this consent form discloses that you agree to participate in this study. You will be provided a copy of this form for your records, regardless of whether you choose to participate. The researcher will keep the second signed consent form.

*Ang iyong pirma sa form na ito ay nagsasaad na sumasang-ayon kang lumahok sa pag-aaral na ito. Mabibigyan ka ng kopya ng consent form upang maging iyong talaan, lumahok man o hindi. Itatago ng mananaliksik ang pangalawang nilagdaang consent form.*

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I have read the foregoing information and I understand the purpose of this research. I am aware that the data will be used for academic purposes and possibly a journal publication. The data gathered in this study are confidential and anonymous with respect to my identity.

I have been informed that participation in this study is completely voluntary without remuneration. I am also aware that I may choose to retract my consent and participation at any time, without any explanations, and without any consequences. I also have a complete understanding of the risks and benefits of the study.

I was made aware of my right to be informed, object to processing access, and rectify, suspend, or withdraw my personal data, and be indemnified in case of damages pursuant to the provisions of RA 10137, the Data Privacy Act of 2012 and its corresponding implementing rules and regulations.

I certify that I have been given satisfactory answers to my inquiries and questions concerning project procedures and other matters and am hereby giving my consent to participate in the data gathering of this research study.

*Nabasa ko ang mga naunang impormasyon at naiintindihan ko ang layunin ng pananaliksik na ito. Alam ko na ang data ay gagamitin para sa mga layuning pang-akademiko at posibleng isang journal publication. Ang mga datos na nakalap sa pag-*

*aaral na ito ay kumpidensyal at hindi nagpapakilalang may kinalaman sa aking pagkakakilanlan.*

*Naipaalam sa akin na ang pakikilahok sa pag-aaral na ito ay ganap na boluntaryo nang walang bayad. Alam ko rin na maaari kong piliin na bawiin ang aking pahintulot at pakikilahok anumang oras, nang walang anumang paliwanag, at walang anumang kahihinatnan. Mayroon din akong kumpletong pag-unawa sa mga posibleng panganib at benepisyo ng pag-aaral.*

*Naipaalaman sa akin ang aking karapatang maabisuhan, tumutol sa pagpoproseso ng pag-access, at pagwawasto, pagsusupindi, o pagbawi ng aking personal na data, at mabayaran ng danyos sa kaso ng mga pinsala alinsunod sa mga probisyon ng RA 10137, ang Data Privacy Act of 2012 at nito kaukulang pagpapatupad ng mga tuntunin at regulasyon.*

*Pinatutunayan ko na nabigyan ako ng sapat na mga kasagutan sa aking mga katanungan at mga tanong tungkol sa mga pamamaraan ng proyekto at iba pang mga bagay at sa pamamagitan nito ay binibigyan ko ang aking pahintulot na lumahok sa pangangalap ng datos ng pananaliksik na pag-aaral na ito.*

**(Print) Name of Participant:** \_\_\_\_\_



**Signature of Participant:** \_\_\_\_\_

**Date:** \_\_\_\_\_  
                  **day/month/year**

**Contact Number and Email:** \_\_\_\_\_

# Appendix C

## Ethical Clearance

 <p><b>Don Mariano Marcos Memorial State University</b> <b>Research Ethics</b> Bacnotan, La Union, Philippines Email: <a href="mailto:retc@dmmsu.edu.ph">retc@dmmsu.edu.ph</a> Level I Accredited by the Philippine Health Research Ethics Board (PHREB) Accreditation No: L1-2023-056-01</p>	<p><b>ETHICAL CLEARANCE</b></p> <p>March 7, 2024</p> <p>This is to certify that DMMSU Research Ethics Committee has <b>APPROVED</b> the following study protocol.</p> <p>Name of Principal Investigator: <b>Daniel P. Ong Jr.</b></p> <p>Title of Study / Protocol: <b>Lived Experiences of Pre-service Teachers in Online Practice Teaching: An Exploration of Connectivist Pedagogy</b></p> <p>RETC Code: <b>2024-230-Online Practice Teaching-Ong</b></p> <p>The following are the responsibilities of the investigators / researchers after protocol approval:</p> <ol style="list-style-type: none"><li>1. Seek approval from DMMSU Research Ethics for any protocol amendment after this date.</li><li>2. Submit SAE and SJSAR Reports to RETC when deemed necessary.</li><li>3. Submit progress report.</li><li>4. Notify DMMSU RETC of any Protocol deviation/violation.</li><li>5. Abide by the principles of good clinical practice and ethical research</li><li>6. Comply with relevant international and national guidelines and regulations</li><li>7. Submit the <b>final report</b> after study completion using the Final Report Form (DMMSU-RETC-F022).</li></ol> <p>This Ethical Clearance is valid until <b>March 7, 2025</b>.</p> <p> <b>JOEL C. ESTACIO</b> Chair DMMSU Research Ethics Committee</p>
<p><b>Research Ethics Committee</b></p> <p><b>Prof. Joel C. Estacio</b> (Health) Chair</p> <p><b>Engr. Luis A. Tattao</b> (Engineering and Technology) Vice-Chair</p> <p><b>Prof. Sherille A. Orjados</b> (Health) Member Secretary</p> <p><b>Members:</b></p> <p><b>Prof. Claudia Denise P. Barbadillo</b> (Social and Behavioral Sciences) <b>Dr. Amy P. Balcita</b> (ICT)</p> <p><b>Dr. CF Omar D. Domingo</b> (Animal Science and Veterinary Medicine)</p> <p><b>Prof. Led Karen R. Zamudio</b> (Health)</p> <p><b>Dr. Genaro D. Ono</b> (Agriculture, Aquaculture and Natural Resources)</p> <p><b>Dr. Violeta F. Collado</b> (Science Education)</p> <p><b>Dr. Jovencio M. Millan Jr.</b> (Health)</p> <p><b>Prof. Sheldy M. Peralta</b> (Health)</p> <p><b>Dr. Aileen Kris S. Padilla</b> (Psychology)</p> <p><b>Prof. Yezza E. Sindayan</b> (Psychology)</p> <p><b>External Members:</b></p> <p><b>Ptr. Epifanio D. Aduan</b> (Humanities and Spirituality)</p> <p><b>Prof. James M. Boido</b> (Health)</p> <p><b>Mr. Enrico S. Del Rosario</b> (Health)</p> <p><b>Atty. Leonard S. Dulay</b> (Governance and Management)</p> <p><b>Mr. Alex P. Samiento</b> (Criminal Justice Education)</p> <p><b>Secretariat:</b></p> <p><b>Engr. Rhodora S. Mortela</b> Staff Secretary</p>	<p>DMMMSU-RETC-F011 Rev.01 (02.15.2023)</p>

## Appendix D

### Focus Group Discussion Reflective Framework

Reflective Framework Stage	Reflective Questions	Translation
<b>A. Philosophy</b>	1. How did you initially become involved in the Internationalization Program on Practice Teaching?	<i>1. Paano ka naggang bahagi ng Internationalization Program sa Practice Teaching?</i>
	2. What were your expectations and goals for participating in the program?	<i>2. Ano ang iyong mga inaasahan at layunin sa pakikibahagi sa programa?</i>
	3. How would you describe your personal teaching philosophy and how does it inform your online practice teaching?	<i>3. Paano mo ilalarawan ang iyong pilosopiya sa pagtuturo at paano ito nakaugnay sa iyong online practice teaching?</i>
	4. Do you believe that engaging in social interaction during online practice teaching is essential for developing a strong teaching philosophy? Can you explain your answer?	<i>4. Naniniwala ka ba na ang pakikipag-ugnayan sa online practice teaching ay mahalaga para sa pagbuo ng isang matibay na pilosopiya sa pagtuturo? Maaari mo bang ipaliwanag?</i>
<b>B. Principles</b>	1. What principles or standards do you prioritize in your online practice teaching?	<i>1. Anong mga prinsipyo o pamantayan mo sa iyong online practice teaching?</i>
	2. How do you ensure that your online practice teaching aligns with these principles?	<i>2. Paano mo matitiyak na ang iyong online practice teaching ay naaayon sa mga prinsipyong ito?</i>
	3. In what ways did the program expand your understanding of international perspectives in education?	<i>3. Sa anong mga paraan pinalawak ng programa ang iyong pag-unawa sa mga internasyonal na pananaw sa edukasyon?</i>
<b>C. Theory</b>	1. How do you incorporate learning theories into your online practice teaching?	<i>1. Paano mo isinasagawa ang mga teorya ng pagkatuto sa iyong online practice teaching?</i>
	2. What specific learning theories do you find most relevant to what you are doing in the online training?	<i>2. Anong mga partikular na teorya sa pag-aaral ang nakikita mong pinakanauugnay sa iyong ginagawa online?</i>

	3. How do these theories inform your approach to designing and facilitating online practice teaching experiences?	3. <i>Paano nakatulong ang mga teoryang ito sa iyong mga estratehiya sa pagdidisenyo at pagpapaayos sa mga karanasan sa online practice teaching?</i>
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<b>D. Practice</b>	1. How did you collaborate with other practice teachers and international colleagues during the program?	1. <i>Paano ka nakipagtulungan sa iba pang mga practice teachers at mga kasamahan sa panahon ng programa?</i>
	2. What strategies do you use to engage learners in your online teaching?	2. <i>Anong mga estratehiya ang ginagamit mo upang maengganyo ang mga mag-aaral sa iyong online na pagtuturo?</i>
	3. How do you encourage collaboration and knowledge sharing among learners in your online practice teaching?	3. <i>Paano mo hinihikayat ang pakikipagtulungan at pagbabahagi ng kaalaman sa mga mag-aaral sa iyong online practice teaching?</i>
	4. How do you assess the effectiveness of your online practice teaching and adjust your approach accordingly?	4. <i>Paano mo tinatasa o sinusuri ang pagiging epektibo ng iyong online practice teaching at inaayos ang iyong pamamaraan?</i>

<b>E. Beyond Practice (Critical Reflection)</b>	1. What were the areas of improvement for the program to better support practice teachers in their teaching practice?	1. <i>Ano ang kailangan mapabuti sa programa upang mas masuportahan ang mga guro sa pagsasanay sa kanilang pagtuturo?</i>
	2. What strategies have you used to identify areas for improvement and make changes to your online practice teaching?	2. <i>Anong mga estratehiya ang ginawa mo upang matukoy ang dapat mapagpabuti at pagbabago sa iyong online practice?</i>
	3. How will you continue to integrate the lessons and experiences gained from the program into your future teaching practice?	3. <i>Paano mo madadala sa hinaharap ang mga natutunan at karanasan mo mula sa programa sa iyong online teaching?</i>
	4. How do you stay up-to-date with developments and best practices in online practice?	4. <i>Paano ka mananatiling up-to-date sa mga pag-unlad at kagawian sa online practice?</i>

## Appendix E

### Semi-Structured Interview Questions

<b>A. How do you utilize the learning tools and resources to seek information, exchange knowledge, and engage in social interaction?</b>	<b>A. Paano mo ginagamit ang mga tool sa online teaching at iba pang sanggunian upang humanap ng impormasyon, makipagpalitan ng kaalaman, at sa pakikipag-ugnayan?</b>
1. How did your past experiences with online practice teaching shape your understanding of the phenomenon?	1. <i>Paano humubog ang iyong mga karanasan sa online practice teaching sa iyong pag-unawa dito?</i>
2. What technologies did you find most helpful during your online practice teaching?	2. <i>Anong mga teknolohiya ang may pinakamalaking naitulong sa iyong pagtuturo online?</i>
3. How did you use technology and resources to engage with your students during online practice teaching? What are the improvements you have witnessed?	3. <i>Paano mo ginamit ang mga teknolohiya at sanggunian upang makipag-ugnayan sa iyong mga mag-aaral sa online practice teaching? Ano ang mga pagpapabuti na iyong nasaksihan?</i>
4. Were there any resources or tools that you wish you had access to during your online practice teaching?	4. <i>Mayroon bang mga sanggunian o tool na nais mong magkaroon ng access habang nasa online practice teaching?</i>
5. Can you share the positive feedback you have received from your cooperating teachers, students, or parents about using learning tools and resources?	5. <i>Maari mo bang ibahagi ang mga positibong feedback na natanggap mula sa iyong mga cooperating teachers, mga mag-aaral, o mga magulang tungkol sa paggamit ng mga tool at sanggunian?</i>
<b>B. How do you cope with the challenges you encounter while teaching remotely?</b>	<b>B. Paano mo hinarap ang mga hamon na iyong nararanasan habang nagtuturo?</b>
1. Have you encountered difficulties adjusting to remote teaching and what challenges have you faced while practicing teaching?	1. <i>Nakaranas ka ba ng hirap sa pag-adjust sa pagtuturo at anong mga hamon ang iyong hinarap habang nagsasanay sa pagtuturo?</i>
2. How have you been feeling about the changes in your teaching environment?	2. <i>Ano ang naramdaman mo sa mga pagbabagong ito sa pagtuturo?</i>
3. Do you have a support system in place to help you cope with the challenges of remote teaching?	3. <i>Mayroon bang support system upang matulungan kang makayanan ang</i>

	<i>mga hamon ng online practice teaching?</i>
4. How did technology help you to overcome any challenges you faced during online practice teaching?	<i>4. Paano nakatulong ang mga teknolohiya sa mga hinarap mong pagsubok sa pagtuturo ng online?</i>
5. How do you stay motivated to continue learning through the resources you use in your practice teaching?	<i>5. Paano ka nagpatuloy mag-aaral magturo gamit ang mga resources sa online na pagtuturo?</i>

<b>C. What learnings can be drawn from your reflections to leverage networked learning practices?</b>	<b><i>C. Anong mga aral ang mapupulot mula sa iyong reflection na magagamit mo sa mga kasanayan sa pag-aaral?</i></b>
1. Do you find networked learning practices effective in achieving your learning goals, and how do you envision the future of online practice teaching evolving based on your experiences?	<i>1. Nakikita mo ba na epektibo ang kasanayan sa network sa pagkamit ng iyong mga layunin sa pag-aaral, at paano nakikinita ang online practice teaching sa hinaharap batay sa iyong mga karanasan?</i>
2. How comfortable were you using technology for networked learning, and what significant insights did you gain from reflecting on these practices?	<i>2. Gaano ka naging komportable sa paggamit ng teknolohiya para sa networked learning, at anong mahahalagang kaisipan ang iyong nakuha sa mga kagawiang ito?</i>
3. What changes or improvements would you like to see in the way online practice teaching is conducted? Why?	<i>3. Anong mga pagbabago o pagpapahusay ang gusto mong makita sa paraan ng online practice teaching? Bakit?</i>
4. In your opinion, what are the essential elements that should be incorporated into the future of online practice teaching?	<i>4. Sa iyong palagay, ano ang mga mahahalagang bagay na dapat isama sa mga sususnod na online practice teaching?</i>
5. How do you think your past and present experiences with online practice teaching will shape your future approach to teaching?	<i>5. Paano nakahubog ang iyong karanasan sa online practice teaching sa iyong hinaharap na mga paraan sa pagtuturo?</i>

## Appendix F

### Sample of Open Coding, Axial Coding, Sub-themes and Themes

#### 1. Leveraging tools and resources in online practice teaching

Open Coding	Axial Coding	Sub-themes	Themes
<p><b>FGD</b></p> <ul style="list-style-type: none"> <li>– gain knowledge and establish communication</li> <li>– positive learning environment</li> </ul> <p><b>Interview</b></p> <ul style="list-style-type: none"> <li>– planning, resource gathering, communication, and presentation during online teaching</li> <li>– information gathering for online teaching</li> <li>– google is useful for searching</li> <li>– most accessible</li> <li>– strategies for effective online lesson planning and resource management</li> </ul> <p><b>Journal</b></p> <ul style="list-style-type: none"> <li>– delivering online lesson</li> <li>– preparing lesson oriented by the cooperating head and teachers</li> <li>– vision for a classroom environment</li> <li>– supportive and inclusive learning environment</li> <li>– meeting with supervising teachers before deployment</li> <li>– Thai potential in English education</li> </ul>	Lesson preparation	Understanding the learners and their culture	Facilitating information exchange
<p><b>FGD</b></p> <ul style="list-style-type: none"> <li>– using background to be involved</li> <li>– formal education and teacher passion</li> <li>– real objects can be used</li> <li>– technology's central role</li> <li>– experience in teaching</li> <li>– characteristics of the learners</li> <li>– prior knowledge on lesson plans</li> <li>– using past experiences in other subjects</li> <li>– applying past knowledge and experiences</li> </ul> <p><b>Interview</b></p> <ul style="list-style-type: none"> <li>– aspiration for teaching</li> <li>– utilizing practice teacher strengths</li> <li>– using comfortable tools</li> <li>– proficiency in using Google Meet</li> <li>– have used GMeet during third year</li> <li>– familiarity with the tool</li> </ul> <p><b>Journal</b></p> <ul style="list-style-type: none"> <li>– using past experiences</li> <li>– applying what they learned in their past courses</li> <li>– applying what they learned in their past courses</li> <li>– prior experiences</li> </ul>	Past Experiences and Knowledge		

<p><b>FGD</b></p> <ul style="list-style-type: none"> <li>- type of learner</li> <li>- expectations for students</li> <li>- type of students</li> <li>- equality in education</li> <li>- adapting to student diversity</li> <li>- awareness of the strengths and weaknesses</li> <li>- recognizing learner differences</li> <li>- type of learner</li> <li>- understanding the learner's weaknesses</li> <li>- opportunity to appreciate the cultural and linguistic diversity</li> <li>- comparing students' differences</li> <li>- cultural barriers in pronunciation</li> <li>- observing class</li> <li>- incorporating learning theories</li> <li>- use learning theories to understand students</li> <li>- student attitudes</li> <li>- how students process information</li> <li>- how they work as a team</li> <li>- importance of understanding the learner</li> <li>- adapting online teaching to specific needs</li> <li>- effective method will depend on the type of students</li> <li>- effective method will depend on the learning level</li> <li>- importance of engaging students in online classes</li> </ul> <p><b>Interview</b></p> <ul style="list-style-type: none"> <li>- effective classroom management</li> <li>- observing their strengths and weaknesses</li> <li>- being observant</li> <li>- some students have weak internet</li> <li>- some actively engage</li> <li>- some demonstrate high level of understanding</li> <li>- some struggle to speak</li> <li>- type of students</li> <li>- attendance and challenges</li> </ul> <p><b>Journal</b></p> <ul style="list-style-type: none"> <li>- incorporating cultural elements</li> <li>- deeply influenced by their strong sense of respect for authority and dedication to their studies</li> <li>- gateway to cultural understanding and personal development</li> <li>- meeting the need of the learner</li> <li>- dealing with learners who actively engage</li> <li>- dealing with learners who actively engage</li> <li>- dealing with learners who are active but needs help</li> </ul>	<p>Understanding the learner</p>		
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<p><b>FGD</b></p> <ul style="list-style-type: none"> <li>- adaptability in online teaching</li> <li>- using costumes and headpieces</li> <li>- interview</li> <li>- language barrier</li> <li>- impart knowledge as a learner also</li> <li>- challenges and opportunities of language barriers</li> <li>- unfamiliar accents</li> <li>- challenges and opportunities of language barriers</li> <li>- adapting learning theories to diverse student needs</li> <li>- difficulty understanding vocabulary</li> <li>- Importance of cultural understanding in teaching</li> <li>- cultural influences on communication</li> </ul> <p><b>Interview</b></p> <ul style="list-style-type: none"> <li>- students open with their teachers</li> </ul> <p><b>Journal</b></p> <ul style="list-style-type: none"> <li>- delivering the online lesson</li> </ul>	<p>Adapting traditional methods</p>		
<p><b>FGD</b></p> <ul style="list-style-type: none"> <li>- making content relatable</li> <li>- inclusive education and inclusive content that values every student's participation in the learning process</li> <li>- social interaction for motivation and understanding</li> <li>- learning objectives</li> <li>- learning objectives</li> <li>- questioning techniques</li> <li>- learning objectives</li> <li>- connecting learning to personal lives</li> <li>- supportive and inclusive environment</li> <li>- assessing learners</li> <li>- applying the principles of creativity, effectiveness,</li> </ul> <p><b>Journal</b></p> <ul style="list-style-type: none"> <li>- online learning theory</li> <li>- dealing with challenging learners</li> <li>- delivering online lesson</li> <li>- delivering online lesson content</li> <li>- creating guides and seeking cultural information</li> <li>- searching for multimedia</li> </ul>	<p>Content Design</p>	<p>Seeking Information to build expertise</p>	