

Pre-Service Teachers in Virtual Classrooms: A Phenomenological Inquiry in a Philippine Context

Mark John M. Martinez

Merian Lyn Amero

Erma Mae Garsain

Agusan del Sur State College of Agriculture and Technology

ABSTRACT The rapid transition to virtual learning during the COVID-19 pandemic significantly transformed teacher education, particularly in resource-constrained contexts such as rural Philippine state colleges. This study aimed to explore the lived experiences of pre-service teachers in implementing virtual classes in the new normal at Agusan del Sur State College of Agriculture and Technology (ASSCAT). Anchored in Moore's Transactional Distance Theory, the research examined how disruptions in dialogue, structure, and learner autonomy influenced teaching and learning dynamics. A qualitative phenomenological research design was employed, involving ten (10) purposively selected pre-service teachers. Data were collected through in-depth interviews and focus group discussions and analyzed using Colaizzi's (1978) method. Trustworthiness was ensured through member checking, audit trails, and reflexivity. Findings revealed that participants encountered major challenges, including unstable internet connectivity, frequent power interruptions, domestic distractions, and technological limitations. Despite these constraints, pre-service teachers demonstrated resilience through adaptive pedagogical strategies, technological improvisation, and contingency planning. These experiences contributed to the development of professional identity characterized by flexibility, emotional resilience, and context-responsive teaching practices. The study concludes that while digital inequities pose significant barriers, they also foster critical competencies necessary for future educators. It is recommended that teacher education institutions strengthen digital pedagogy integration, improve ICT infrastructure, and implement resilience-based training programs to better prepare pre-service teachers for evolving and technology-driven learning environments.

Keywords: future educators, online instruction, pedagogy strategy, transition education

INTRODUCTION

The rapid shift to virtual learning during the COVID-19 pandemic significantly transformed teacher education globally, revealing both opportunities and structural inequalities. In developing countries such as the Philippines, the transition highlighted persistent challenges related to digital infrastructure, access, and pedagogical preparedness. Pre-service teachers, as future educators, were placed at the forefront of this transformation, navigating unfamiliar digital environments while simultaneously developing professional competencies.

Globally, studies have documented challenges such as digital divide, psychological stress, and lack of pedagogical readiness among pre-service teachers (Rapanta et al., 2020; König et al., 2022). Southeast Asian contexts, including Malaysia and Thailand, report similar issues of inadequate infrastructure and low digital competence (Yusof et al., 2021; Suwannathachote & Tantrarungroj, 2020). In the Philippine setting, these challenges are exacerbated by rural disparities, unstable connectivity, and limited institutional support (Toquero, 2020; Barrot et al., 2021).

Despite these findings, there remains a critical gap in understanding the lived, day-to-day experiences of pre-service teachers in rural state colleges. Most studies adopt macro-level or quantitative approaches, overlooking the nuanced realities of teacher formation in constrained digital environments.

This study is anchored in Moore’s Transactional Distance Theory (1993), which posits that learning in distance education is shaped by dialogue, structure, and learner autonomy. In low-resource contexts, these elements are disrupted, reshaping teaching and learning dynamics. Using a phenomenological approach, this study explores how pre-service teachers at ASSCAT navigate these disruptions, develop coping strategies, and reconstruct their professional identity

Theoretical/Conceptual Framework

The research is grounded in Moore’s Transactional Distance Theory (1993), which argues that in distance education, the psychological and communicative distance between the instructor and learner are established by three variables, namely dialogue, structure, and learner autonomy. For Agusan del Sur State College of Agriculture and Technology (ASSCAT), pre-service teachers had different levels of transactional distance in the use of virtual classes during the new normal due to weak internet connection, low instructional interaction, and self-orientation learning. Drawing on this theory, the research examines how these factors influenced the lived lives, coping strategies, and pedagogical stance of ASSCAT’s future teachers, and provides us with a glimpse at viewing their adaptive approaches in terms of a digitally mediated learning environment.

Figure 1 illustrates this research’s conceptual model to follow up the pre-service teachers’ lived experience of the online class. The conceptual model illustrates the three dimensions of experiences, coping mechanisms, and insights and how they are interpreted within Moore’s Transactional Distance Theory (1993). This structure provides an apparent window through which it can be seen how ASSCAT pre-service teachers managed learning pressures in the new normal and how this impacted their professional growth.

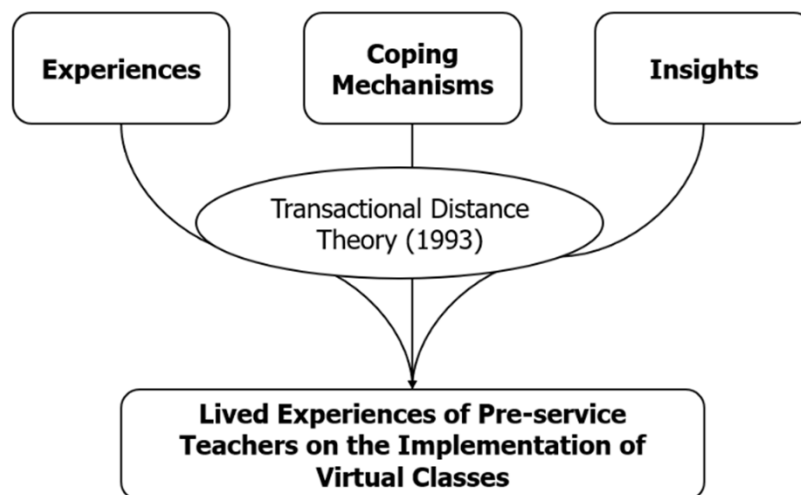


Figure 1 Conceptual Framework of the Study

METHODOLOGY

Research Design

This research used the qualitative phenomenological method to describe and explore the pre-service teachers' lived experiences during the introduction of virtual classes in the new normal. Phenomenology was used due to its ability to reveal rich, subjective meanings based on participants' perspectives, specifically to come to know social and psychological aspects of remote learning (Blankenship, 2016). Data gathering employed two tools: focus group discussions (FGDs) and in-depth interviews, both employing semi-structured protocols allowing follow-up questions and emergent data.

Participants and Sampling

Ten (10) pre-service teachers from Agusan del Sur State College of Agriculture and Technology were purposively selected based on inclusion criteria: 18–35 years old, actively attending virtual classes, and officially attached to their institution during the pandemic. Five were allocated individual interviews and five to FGDs to maintain individual depth and group processes in data generation. Division was set to enable triangulation of view and was themed towards maximizing thematic richness. Saturation was achieved when there were no new themes anymore in either of the two sets of data, in keeping with phenomenological recommendations on small, information-rich samples (Crouch & McKenzie, 2006).

Analysis of Data

Data analysis followed Colaizzi's (1978) seven-step method, ensuring transparency and rigor. Transcripts were read multiple times to extract significant statements, which were then formulated into meanings. These meanings were clustered into themes, validated through member checking, and integrated into an exhaustive description of the phenomenon. Coding was conducted manually by the researchers, with intercoder agreement established through collaborative review. Reflexivity was assured in the process through recording researcher assumptions, positionality, and possible bias, especially considering researchers were institutionally affiliated with ASSCAT.

Trustworthiness was obtained using Lincoln and Guba's (1985) measures: credibility through member validation and extended engagement, transferability using thick descriptions, dependability using audit trails, and confirmability through keeping reflexive journals. Ethical procedures were strictly followed, namely informed consent, voluntary participation, and right to withdraw. Online data collection following netiquette and health guidelines was done. The research was conducted in compliance with the Belmont Report standards of ethics, respect for persons, beneficence, and justice, and the provisions of R.A. 10173 (Data Privacy Act of 2012) to guarantee confidentiality and data protection.

RESULTS AND DISCUSSION

Experiences of Pre-service Teachers on the Implementation of Virtual Classes in the New Normal

After analyzing the responses of the participants about the experiences of preservice teachers on the implementation of virtual classes in the new normal, the following themes emerged: (1) unstable connectivity as an obstacle to pedagogical engagement (2) power interruptions and the fragility of digital instruction (3) domestic disruptions and the blurring of learning boundaries (4) technological limitations and the strain of digital minimalism.

Table 1. Major Themes and Core Ideas on Experiences of Pre-service Teachers on the Implementation of Virtual Classes in the New Normal.

Major Themes	Core Ideas
Unstable Connectivity as an Obstacle to Pedagogical Engagement	<ul style="list-style-type: none"> • increasing number of pupils absences due to poor internet connection • having struggles in understanding the lesson due to unstable connection • experiencing delays in joining virtual classes feeling pressured by the cooperating teacher when the connection is poor • transferring from one place to another in order to get a stable internet connection
Power Interruptions and the Fragility of Digital Instruction	<ul style="list-style-type: none"> • limiting the pupils in joining virtually due to abrupt power interruption • experiencing delayed in class • experiencing sudden power interruption
Domestic Disruptions and the Blurring of Learning Boundaries	<ul style="list-style-type: none"> • having pupils who get easily distracted by the things found at home • experiencing distraction from their parents • encountering noises from animals
Technological Limitations and the Strain of Digital Minimalism	<ul style="list-style-type: none"> • Experiencing lags with laptops when conducting virtual class • Feeling frustrated with the poor performance of the laptop • Having a device that failed to function during demonstrations

Unstable Connectivity as an Obstacle to Pedagogical Engagement. Participants mentioned unstable internet connection as one of the biggest hindrances to enrolling in online classes, particularly those residents in rural parts of Agusan del Sur. Beyond inconvenience, poor connection had resulted in missed classes, delayed submissions, and increased concern for academic performance. "Had to climb a hill just to receive signal, it was like seeking education," recalled one interviewee. Such challenges not only speak to infrastructural limitations but also the affective weight of being digitally excluded.

Almusharraf and Khahro (2020) found that unstable internet connection significantly affects learners' satisfaction and engagement in distance learning environments. Similarly, Sahu (2020) emphasized that digital divide in developing nations destroys level playing grounds for schooling. Despite those, respondents were adaptable in the sense that they balance timetables, pre-downloaded materials, and accessed through alternate channels, illustrating how digital adversity affected their innovation and commitment in pedagogy.

Power Interruptions and the Fragility of Digital Instruction. Intermittent power outages were an usual interruption, further habituating online learning issues. Cadets reported lagging in middle parts of synchronous classes and struggling to charge hardware, feeling even more helpless and alone. "I was ready to teach, but the blackout ruined everything." The experience highlights the susceptibility of virtual classrooms in electricity-reliant zones.

Toquero (2020) identified unpredictability of power as a significant barrier to online teaching in rural Filipino communities. In addition, Lapada et al. (2020) confirmed that power outages and weak connectivity severely restrict teaching continuity and student participation. Nevertheless, the respondents developed mechanisms to improvise through schedule adjustments, the use of backup batteries, and the adoption of asynchronous modes, demonstrating how infrastructural deficits fostered pedagogical agility and resourcefulness.

Domestic Disruptions and the Blurring of Learning Boundaries. Home setting, usually assumed to be a safe learning environment, proved to be the source of distraction and interference. Distraction by noises, lack of space, and items of domestic chores were provided by the participants as the main barriers to concentration and participation. She clarified, "I was educating while my brothers were watching TV next to me." The stories demonstrate how home lives turned into mixed spaces between home and school life, which dispersed the professional self of pre-service teachers.

Baticulon et al. (2021) had defined a sub-standard home learning environment as being one of the key determinants that influence the motivation and psychological well-being of students in online learning. In the same vein, Cleofas and Rocha (2021) pointed to the fact that socio-economic constraints of Filipino families make learning discontinuous. The above notwithstanding, participants proved self-regulation by negotiating timetabling, improvisational learning spaces, and compartmentalizing minds by role, proving their resilience to change and survive.

Technological Limitations and the Strain of Digital Minimalism. Device constraints were not as much technical problems as indicative of deeper digital inequities. Most of the participants had cell phones with storage and computing capacity deficits that limited their use of equipment like Zoom and Moodle. One participant offered, "My phone heats up after 30 minutes of class, I just tough it out." This is one way to see how technology deficiency influences not only delivery of instruction, but also physical comfort and endurance.

Barrot et al. (2021) established that poor access to stable devices is one of the major hindrances to successful online learning in the Philippines. In addition, Coman et al. (2020) highlighted that digital technologies play a vital role as determinants of learners' engagement and quality in educational environments online. Students bridged digital constraints through clearing device storage, sharing the same device, and using devices with limited bandwidth, demonstrating how digital constraints influenced their ingenuity and justified their commitment to teaching as a calling.

CONCLUSION

This study explored the lived experiences of pre-service teachers in implementing virtual classes within a resource-constrained context. Findings revealed that participants encountered significant challenges, including unstable internet connectivity, power interruptions, domestic distractions, and limited technological resources. Despite these constraints, pre-service teachers demonstrated resilience through adaptive pedagogical strategies, technological improvisation, and contingency planning. Anchored in Moore's Transactional Distance Theory, the study highlights how disruptions in dialogue, structure, and learner autonomy reshape teaching and learning dynamics in virtual environments. Importantly, these experiences contributed to the transformation of participants' professional identity, emphasizing adaptability, emotional resilience, and context-responsive teaching practices. The study concludes that while digital inequities pose substantial barriers, they also foster critical competencies necessary for future educators. These findings underscore the need for teacher education institutions to strengthen digital pedagogy, enhance institutional support systems, and promote equity-driven and resilience-oriented training models to ensure effective preparation of pre-service teachers in evolving educational landscapes.

RECOMMENDATION

Based on the findings, it is recommended that teacher education institutions strengthen the integration of digital pedagogy and blended learning approaches within pre-service training programs. Higher education institutions, particularly state universities and colleges (SUCs), should invest in reliable ICT infrastructure, including internet accessibility, power backup systems, and provision of appropriate learning devices to address digital inequities. Faculty development initiatives must be implemented to enhance instructors' competencies in technology-mediated instruction and adaptive teaching strategies.

Moreover, institutions should incorporate resilience-based and contingency-oriented training to prepare pre-service teachers for disruptions in teaching and learning environments. Strengthening mentoring and supervisory support systems is also essential to guide students in navigating virtual teaching contexts effectively. Finally, future research is encouraged to examine the long-term impact of virtual teaching experiences on professional identity development and teaching effectiveness, particularly in low-resource educational settings.

REFERENCES

- Almusharraf, N., & Khahro, S. H. (2020). Students' satisfaction with online learning experiences during the COVID-19 pandemic. *International Journal of Emerging Technologies in Learning (IJET)*, 15(21), 246–267.
<https://doi.org/10.3991/ijet.v15i21.15647>
- Baloran, E. T. (2020). Knowledge, attitudes, anxiety, and coping strategies of students during COVID-19 pandemic. *Journal of Loss and Trauma*, 25(8), 635–642.
<https://doi.org/10.1080/15325024.2020.1769300>
- Barrot, J. S., Llenares, I. I., & del Rosario, L. S. (2021). Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and Information Technologies*, 26, 7321–7338.
<https://doi.org/10.1007/s10639-021-10589-x>
- Baticulon, R. E., Sy, J. J., Alberto, N. R. I., et al. (2021). Barriers to online learning in the time of COVID-19: A national survey of medical students in the Philippines. *Medical Science Educator*, 31, 615–626.
<https://doi.org/10.1007/s40670-021-01231-z>
- Blankenship, D. C. (2016). *Applied research and evaluation methods in recreation*. Human Kinetics.
- Bond, M., Buntins, K., Bedenlier, S., Zawacki-Richter, O., & Kerres, M. (2021). Mapping research in student engagement with digital learning technologies: A systematic review. *Educational Technology Research and Development*, 69, 1019–1054. <https://doi.org/10.1007/s11423-021-09952-0>
- Cleofas, J. V., & Rocha, I. C. N. (2021). The impact of COVID-19 on Filipino college students' lives: A mixed-methods study. *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-020-00330-5>
- Colaizzi, P. F. (1978). Psychological research as the phenomenologist views it. In R. S. Valle & M. King (Eds.), *Existential phenomenological alternatives for psychology* (pp. 48–71). Oxford University Press.
- Coman, C., Tiru, L. G., Meseşan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. *Sustainability*, 12(24), 10367.
<https://doi.org/10.3390/su122410367>
- Crouch, M., & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. *Social Science Information*, 45(4), 483–499.
<https://doi.org/10.1177/0539018406069584>
- Cutri, R. M., Mena, J., & Whiting, E. F. (2020). Faculty readiness for online crisis teaching: Transitioning to online teaching during the COVID-19 pandemic. *European Journal of Teacher Education*, 43(4), 523–541.
<https://doi.org/10.1080/02619768.2020.1815702>

- Dulay, M. F. C., Panganiban, M. C. D., & Reyes, M. E. S. (2023). Mental health and academic engagement of Filipino pre-service teachers in remote learning. *International Journal of Educational Research Open*, 5, 100234. <https://doi.org/10.1016/j.ijedro.2023.100234>
- Flores, M. A., & Swennen, A. (2020). The COVID-19 pandemic and its effects on teacher education. *European Journal of Teacher Education*, 43(4), 453–456. <https://doi.org/10.1080/02619768.2020.1824253>
- Ismail, H. N., Ariffin, S. R., & Hassan, R. (2023). Pre-service teachers' readiness for digital pedagogy in Southeast Asia: A comparative study. *Journal of Education and e-Learning Research*, 10(2), 123–130. <https://doi.org/10.20448/journal.509.2023.102.123.130>
- König, J., Jäger-Biela, D. J., & Glutsch, N. (2022). Adapting to online teaching in the time of COVID-19 school closures: Teacher education and teacher competence effects on stress. *Teaching and Teacher Education*, 103, 103401. <https://doi.org/10.1016/j.tate.2021.103401>
- Lapada, A. A., Miguel, F. F., Robledo, D. A., & Alam, Z. F. (2020). Teachers' COVID-19 awareness, distance learning education experiences and perceptions towards institutional readiness and challenges. *International Journal of Learning, Teaching and Educational Research*, 19(6), 127–144. <https://doi.org/10.26803/ijlter.19.6.8>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage Publications.
- Moore, M. G. (1993). Theory of transactional distance. In D. Keegan (Ed.), *Theoretical principles of distance education* (pp. 22–38). Routledge.
- National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. (1979). *The Belmont Report: Ethical principles and guidelines for the protection of human subjects of research*. U.S. Department of Health and Human Services. <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html>
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity. *Postdigital Science and Education*, 2(3), 923–945. <https://doi.org/10.1007/s42438-020-00155-y>
- Republic of the Philippines. (2012). *Data Privacy Act of 2012 (R.A. 10173)*. Official Gazette. <https://privacy.gov.ph/data-privacy-act/>
- Sahu, P. (2020). University closure due to coronavirus disease 2019 (COVID-19): Effect on student and academic staff mental health and education. *Cureus*, 12(4), e7541. <https://doi.org/10.7759/cureus.7541>

-
- Suwannatthachote, P., & Tantrarungroj, P. (2020). Online learning through COVID-19: Case study of Thai pre-service teachers' experiences. *International Journal of Information and Education Technology*, 10(12), 908–913.
<https://doi.org/10.18178/ijiet.2020.10.12.1471>
- Toquero, C. M. D. (2020). Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. *Pedagogical Research*, 5(4), em0063.
<https://doi.org/10.29333/pr/7947>
- Trust, T., & Whalen, J. (2021). K–12 teachers' experiences and perspectives on remote learning during the COVID-19 pandemic. *TechTrends*, 65, 231–240.
<https://doi.org/10.1007/s11528-021-00525-2>
- Yusof, N., Mansor, A. Z., & Rahim, N. A. (2021). Challenges encountered by Malaysian pre-service teachers while undertaking virtual practicum during the COVID-19 pandemic. *Asian Journal of University Education*, 17(3), 1–10.
<https://doi.org/10.24191/ajue.v17i3.14532>