Online Instructional Supervision in an Advanced Higher Education

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Abstract. The continuity of learning in graduate and post-graduate education was ensured through online instructional supervision during the COVID-19 pandemic. This initiative aligns with the fourth Sustainable Development Goal (SDG 4), emphasizing the preservation of quality education amidst unprecedented challenges. The pandemic-induced shift to online learning environments underscored the critical need for robust supervisory practices that promote equitable and inclusive education for all students in the graduate studies. Employing a phenomenological approach, this study explored the experiences of 15 internal stakeholders involved in online instructional delivery at a state-funded university. The thematic analysis yielded five key insights: the lived experiences of internal stakeholders during the pandemic, transformative shifts in work and learning dynamics, perceptions of the internal stakeholders on online supervision, strategies for effective online supervision, and the opportunities and challenges inherent in this modality. Despite inherent limitations, online instructional supervision in advanced higher education during the pandemic proved to be both complex and transformative. The study recommends ongoing investment in human capital and technological infrastructure by educational institutions to secure sustainable educational outcomes for graduate and post-graduate students in the long term.

Keywords: online instructional supervision; advanced higher education; COVID-19 pandemic

1. Introduction

In the age of internationalization and globalization, education places a high value on the ability to adjust to new developments. Academic institutions offering basic, advanced, and/or higher education in all nations raise awareness of the importance of appropriateness, relevance, and responsiveness in the supervision and delivery of teaching. Learning institutions are always prepared to take on

new and urgent challenges that have an impact on many facets of leadership and instruction, either directly or indirectly.

For more than two years, the entire world has undeniably become a concrete witness to this challenging blow impacted by the global crisis brought about by COVID-19. In this struggling time, the global educational system has been reframed by the outbreak of the pandemic. There was the physical discontinuance of classes, community quarantines, retrenchment of employees, travel bans, etc. This painful reality enormously affected the various sectors of society, particularly academic institutions. Internal stakeholders share apprehension and anxiety about the drastic transfiguration of the situation. With the "new normal" most teachers and students stay and do activities at home and are trying to cope with the situation since reconstructing decades of accustomed lifestyle is an uphill battle. Moreso, the academic leaders are on their toes to ensure that supervision of activities is still well-facilitated. While Ng (2021) cited teachers' presence as important to engage the students, Sato et al. (2024) brought attention to crucial approaches and advancements in virtual instruction, stressing the significance of flexible, engaging, and equitable educational methodologies. This underscores the requirement for ongoing teacher training, the incorporation of cutting-edge technological resources, and the prioritization of student welfare and academic achievement in online settings.

On a positive note, however, these academicians especially those with academic responsibilities who, while undergoing the process of adjusting to the disturbing situation, have tried their best to ensure that learning continues in its observance for resilience and sustainability for quality academic engagement through the implementation of online classes. Both students and professors reach out to one another just so nobody is left behind. Note, in advanced higher education, students aside from their online classes, undertake several activities. To name; observation of online classes, consultation with these academic leaders with their varied concerns, topic presentations, thesis/dissertation design/evaluations, etc. These scenarios have become very challenging especially when dealing with graduate students who are teacher-professionals with a number of them taking key positions in their fields of practice. At the time when all transactions are done online, the responsibilities of academic leaders/supervisors are arduous. According to Zaheer and Munir (2020), supervisors' responsibility increases exponentially as each student is working on a different topic and requires customized mentoring. As Cameron et al. (2022) reported that the COVID - 19 pandemic had shifted the learning institutions to online modality to ensure learning continuity. Moreover, Tsiligkiris and Ilieva (2022) said that online learning continues in the post-pandemic due to its increased resourcing and recognition.

The sudden shift from traditional delivery of instruction to online modality has caught the attention among education leaders. This "exciting" journey therefore necessitates an exploration of how the instructional leaders supervise online facilitation of concerns during these trying times. As this becomes the growing instructional practice amid the dearth of available resources, ultimately, this study

ascertained how these variables can usher toward sustainable, resilient, and relevant education. Thus, this study is conducted.

Objectives of the Study
This study ascertains how online supervision is managed in the advanced higher education of a state university in Region 7, Philippines.

2. Review of Related Literature

The COVID-19 pandemic has created unprecedented challenges economically, socially, and politically across the globe (Dayagbil et al., 2021). Higher education has undergone fundamental change, with teaching becoming digitalized. Campuses were ordered evacuated leaving classrooms, laboratories, dorms, and cafeterias vacant. Schools cancelled graduation ceremonies to prevent the virus from spreading further (Bilecen, 2020). The COVID-19 virus has kept challenging people's physical health, social and emotional well-being, and learning and educational development (Hodges et al. 2020; Brock et al., 2021). The physical closure of the school and its subsequent online learning delivery systems became a critical issue for the educational leaders and their role as instructional supervisors. It was a formidable task for school leaders to provide instructional supervision in an online learning world. Brock et al. (2021) maintained that instruction leaders are evident on providing teachers support while engaged in online teaching

The pandemic has altered the teaching and learning methods in postgraduate studies. Institutions offering masters and doctoral programs have restructured their technology infrastructure to continue providing quality instruction. Face-to-face transactions in the pre-pandemic period were transformed into online transactions, including supervision. Enrollment, orientations, course evaluation, counseling, comprehensive examinations, thesis, and dissertation defense are all done online. According to Wongeh et al. (2022), supervision is a collaborative, scientific, integrated, standing, and flexible process. Through teamwork, job-related abilities, personal skills, focus, attitudes, growth and orientation, clear comprehension, proactivity, knowledge and information, and methodical process, their work offered approaches to improve supervision. Aafjes-van Doorn et al. (2022) surveyed 152 clinical psychology students, focusing on quality, efficacy, and future preferences, to learn about their experiences with synchronous online teaching during the pandemic. Both online didactic learning and online supervision were introduced to the students. Their participation in online learning is crucial to how well they can learn virtually. With this, the online supervision of instruction is very important to ensure the quality of the teaching and learning processes.

The study of Kraiger et al. (2022) on the efficacy of online graduate psychology programs offered recommendations for enhancing learning and growth in efficient online learning environments. More importantly, the findings of Chang et al. (2021) further conclude that knowing the students' digital journeys became even more crucial in the period of the COVID-19 pandemic when the majority of

higher education institutions significantly increased the volume of their engagements with students using remote delivery of courses and services.

To actualize supervision while instructional delivery is done remotely, Zaheer and Munir (2020) found that technology has been one of the challenges faced by teachers and students. During the pandemic the use of technology was pivotal in ensuring learning continuity. Instruction is one of the areas deemed very important in ensuring the quality of a postgraduate degree, among others.The purpose of instructional supervision is the enhancement of teacher's pedagogical skills with the ultimate goal of enhancing student achievement Several research findings indicate that instructional supervision improves teachers' teaching performance (Wiyono et al., 2021; Maisyaroh, 2021). The frequency of instructional supervision improves the quality of the teacher's teaching-learning process. The greater the teacher's involvement in instructional supervision, the higher the quality of the teacher's instruction (Wiyono, 2021). For teachers and students to be successful during the "new normal" created by the COVID-19 pandemic, instructional supervisors need to have the requisite skills, abilities, and mindset (Brock et al., 2021).

In the case of a university's advanced higher education unit, faculty are invited to teach based on their educational credentials, work experience, administrative positions, and expertise. In this way, the faculty can connect theory and practice, allowing graduate students to broaden and deepen their perspectives in a specific degree program. Moreover, Grissom et al. (2021) in their work on leadership, determined that as significant to student achievement as high-quality teachers are, effective principals are. To the same extent, there are deans and program chairs who are also arms in keeping the standards of quality in advanced higher education. Brock et al. (2021) explored school supervisors' response during the pandemic which includes support to teachers in the transition from face-to-face to remote learning, addressing the needs of teachers and students, and celebrating success while teaching and learning in a virtual environment.

Conversely, Han et al. (2021) noticed in their study of international graduate students' perceptions of online learning during the pandemic that the students attempted to adapt to the "new normal" while facing learning and emotional challenges caused by the pandemic's harsh conditions. Similarly, the higher education institutions (HEIs) in the Philippines have implemented proactive measures to ensure that learning still takes place despite the challenges of the pandemic (Mananay et al. (2022) including upskilling and reskilling of the faculty. In the same way, students were also given various opportunities to join orientations on how to participate in online learning.

With the studies cited focusing on effectiveness of instruction supervision and teaching and learning in an online environment, studies that explore how online supervision is conducted in post graduate education including the graduate school students' experiences remain unexplored. Thus, this study aimed to document and describe how online supervision is managed in a state university in the Philippines.

3. Methodology

3.1 Design

This phenomenological study explored the education stakeholders' experiences during the online delivery of instruction in graduate studies since the start of the pandemic. The Husserlian phenomenological approach was used to arrive at the description of the experiences as shaped by their consciousness. Instructional leaders' and teachers' consciousness and introspection are essential to ascribe meaning to their experiences.

Bracketing, a phenomenological device, was used to ensure that the researchers' beliefs and preconceived ideas would not affect the interpretation of the experiences. An empirical method of interviewing was used in collection of the experiential material. According to Cresswell (2014), data are best taken as descriptions of live-through moments and remembered stories of a particular experience. In this regard, there is a focus on describing the educational stakeholders' experiences. Within the process, emerging questions and procedures, data collected in a natural setting, data analysis, and meaning-making were considered to uncover the essence of the studied phenomenon.

3.2 Environment and Research Participants

This study was conducted in one of the premier universities in Region 7 which has offered graduate education programs for the last ten years. To obtain the needed data, the purposive sampling was used with 15 participants (six with administrative functions, three course professors, three students, and three office staff) selected. Data saturation was used to determine the final number of interview. The informants were selected based on the inclusion criteria. Students were enrolled from 2020 to 2022, while instructional leaders and support staff were designated in their positions from 2020 to 2022.   All gave their voluntary consent to be part of the study. The representation was necessary to ascertain that various settings and contexts can be explored to capture the experiences in graduate studies since the start of the pandemic.

The informants' disclosing of their experiences was contingent upon the skills of the researcher. The researcher actively participated in the interview process as the interviewer by asking probing questions and making accurate choices on the direction of the in-depth interview. To guide the researcher, an expert-validated interview guide was used. The questions were framed following the nature of the study. Main and probing questions were asked for the informants to give vivid details of their experiences. Probing questions were asked to enable the informants to share more to get the desired phenomenon being studied.

3.3 Data-gathering Procedure

Approval of the Research Ethics Committee prior to the conduct of the interview was sought. The selected participants were given the informed consent form. Since the nature of the study necessitated an interview, participants' informed consent was sought. The interview was conducted via online conferencing applications through Zoom, Google Meet, and Messenger. The transcripts of the interview were analyzed.

3.4 Data Analysis

The informants' narratives were inductively analyzed using Saldana's (2015) four-step process of thematic analysis. With the transcribed interviews, codes were identified (Step 1). Significant lines were assigned with codes and from these codes high-level categories were determined (Step 2). Synthesizing and reviewing the codes through analytic memoing were done (Step 3). The final step was the application of the themes that emerged from the research questions (Step 4).

3.5 Ethical Considerations

The study got the research ethics clearance for the University with REC Code 246 / 2022-11. The major ethical issues considered were confidentiality, and anonymity, informed consent, and respect for privacy. The right to withdraw from the study at any time was also observed. Informants' signed consent forms support their approval to provide the needed data in the study. They were not linked to the data, in whatever means, and their identities were known only by the researcher. The participants were referred to by their coded ID. Lastly, the participants were informed that they could withdraw from the study at any time if they wished to. This right was explained to them before their engagement in the research. Considerably, Lincoln and Guba's in Nowell et al. (2017) trustworthiness criteria: credibility, dependability, transferability, and confirmability were observed.

4. Results and Discussion

Utilizing thematic analysis, the five themes with its corresponding sub-themes, which guide the subsequent discussion and implications of the study, are presented in Table 1.

Table 1. Summary of Themes and Sub-themes

Themes	Sub-themes
1. Experiences during the Pandemic	Concerted efforts among the internal stakeholders
	Perceived affordances
2. Shifts in Work and Learning Dynamics	Adaptability to a digital workload
	Resiliency to chart new courses
3. Perception of Online Supervision	Innovative online supervision methods
	Supervisor's support strategies
4. Effective Online Supervision Strategies	Clear communication
	Offering assistance and training
5. Opportunities and Challenges in Online Supervision	Opportunities in Online Supervision (enhanced flexibility; increased access to resources; save time and expenses)
	Challenges in Online Supervision (reliable internet and other technological difficulties; frequency and quality of interactions; managing expectations)

Theme 1: Experiences during the Pandemic
Teaching and learning modalities have shifted to online engagement during the pandemic to ensure learning continuity. In advanced higher education, administrative and academic processes were transitioned from onsite to online platforms.

Concerted efforts among the internal stakeholders. In terms of enrolment, the concerned offices of the university collaboratively took responsibility for the flow of its online processing. Positively, the students expressed the following:

"The instructions from the Cebu Normal University PIO were very detailed, so I found no problem with the enrollment(S1). "Online enrollment is more convenient than the onsite" (S2) *and "on the onsite platform, we need to have a clearance but online, we simply register"* (S6). Student (S4) said; "*online enrolment is efficient and user-friendly and if there are problems, the office is very helpful.*" On the other hand, a student (S4 shared," *It was lengthy because processes were done online. So you have to wait for days before the confirmation of your payment will be received by the finance officer"*.
Moreover, a faculty (F1) and an office staff (OS3) shared that." *Enrolled students have increased during the pandemic since it's convenient and practical without having to go to school.*" Moreover, one administrator (A2) disclosed, "*There is a notable increase in student enrollment during the initial two years of online classes as opposed to face-to-face instruction. This shift in preference by my students for online education.* Meanwhile, a faculty (F5) expressed, "*In terms of enrollment, the problem is that sometimes students enroll in the wrong subjects".* It is evident that although online enrolment engendered numerous benefits, it also generated certain challenges. Therefore, the online enrollment system has to be smooth and seamless. A simplified process reduces barriers to completing enrolment and enhances the student experience (Notermans, 2023).

These accounts were similarly encountered by the students in the conduct of other major activities like the orientation program, online classes, comprehensive examination, and thesis and dissertation writing. According to Paris (2022), students continued with their studies despite economic and physical setbacks brought about by the pandemic. This certainly challenged but inspired the teachers to take their responsibility even more competently, especially with the utilization of online platforms. In this setup, students (S3, S6) noted, "*Students eventually found the blended activities more advantageous since we need not travel during the pandemic period. We were able to save money since we don't need to travel to the city.*"
A faculty (F2) commented," *It gave students big room to still be able to perform and report to their workstations.* The online conduct of classes and other activities, via Zoom or Google Meet as noted by one admin officer (A1) "*was initially challenging but gradually turned out facilitative.*"

Action affordances. Graduate students also experienced difficulties in attending classes and orientation programs. A student (S3) shared, "*Since I was only accustomed to using mobile data, I faced some difficulties, like the internet connectivity. There were days when I was unable to attend orientation programs and classes because my mobile data was insufficient…*" As experienced by a student (S3), he said, "*online orientation, as well as online classes, were conducted using Zoom for the students; more*

engagement and attendance was checked". While a faculty (F3) commented that," *There's always orientation at every start of the year before the start of classes and I really believe it's helpful in setting the direction of the Graduate studies student before classes start.*" In addition, another student (S4) shared, "*the orientation meeting is very helpful toward the conduct of the online classes because we are well guided.* This disclosure is likewise evident in the conduct of a comprehensive examination that aims to assess the knowledge and capabilities of a graduate student before admission to thesis/dissertation writing (Hodges et al., 2020).

Based on observation and experience on the comprehensive examination, a student (S3) expressed *that the online comprehensive examination was more convenient and facilitative since I only stayed at home; I could just wear an ordinary outfit.* One administrator (A2) expressed that *exam results are released earlier compared to the onsite comprehensive exam as facilitated by the CIFL*". Meanwhile, faculty (F3) disclosed," *Issues on honesty in taking the examination surfaced. The test takers can access the internet during the examination.*

On academic consultation and thesis and dissertation writing, a student (S3) expressed that it was "*easier to check drafts and consultation if conducted online*" while a student (S2) noted, "*It is very difficult to organize your thoughts in the data analysis while you are juggling work and other interests.*" Another student (S5) commented on the dissertation "*In general, the process was very lengthy. Because in the oral defense, it still starts with...and goes over with the compliance again. Moreover, a challenge on the inability of the panel members to work with their computers to include notations*". An administrator (A3) also shared, "*It was more facilitative online because students are compelled to comply then the mentors can maximize their social media and optimize their knowledge and skills on technology.*"

After having graduated with their respective degrees, most of these graduate students either seek further professional advancement or apply for promotion. Therefore, they request for their academic records necessary for the aforesaid purpose. Based on the accounts of the participants, administrators (A1, A2) said, "*The online process was convenient but on the less responsive services from the Registrar's Office.* While a student (S4) shared, "*It was very easy because it was online. I am more flexible and productive if it's online.*" But a student (A6) expressed, "*Due to new procedures, it took longer than usual.*" Records management ensures that records are properly stored, accessed, and managed securely (Maisyorah et al., 2021; Kirvan, 2022,). In capsule, since the request for records is so vital, it necessitates prompt action, and then the office takes cognizance of its priority and urgency. Much as the online process is convenient for students there, should be an efficient system by which the concerned offices could respond to online requests for responsive and seamless services.

Theme 2: Transformative Shifts in Work and Learning Dynamics
The pandemic-induced changes have transformed graduate education, reshaping work habits, functional dynamics, course delivery, communication modality, and institutional priorities. This shift in administrative tasks, teaching methodologies, student responsibilities, and staff support to adapt to new realities is captured in two subthemes: *adaptability to a digital workload and resiliency to chart new courses.*

Adaptability to a digital workload. The stakeholders have navigated the surge of digital demands as workflows, priorities, and teaching methodologies transitioned online to stay afloat in what was known as the 'new normal.' Administrative adaptations were notable in the sudden shifts in workloads and priorities, communication methods with students and faculty, and in the implementation of new online supervision and processes. These adaptations are noted with the participants' narrations, *The work was more challenging in addressing ways on how to respond to the needs of teachers and learners. Policy review and redesigning with due consultation with students and faculty took up so much time but the outcome is more satisfying (A1), During the pandemic, we had the classes done online via Zoom or Google Meet and I noticed that it is easier to respond requests through email (A2);* and *It facilitated the sharing of documents, references and research materials, enhancing resource utilization while online supervision offered numerous advantages, it is also crucial that we as an institution address potential challenges to maintain a strong mentor-student relationship through ensuring reliable internet connecting for all (A3).*

The transition to a digital workload necessitates adaptability among graduate program administrators as narrated by the participants. As workflow shifted online, they learned to streamline communication processes and use essential tools to provide uninterrupted graduate program delivery. Considerably, research highlights that reliable internet connectivity and maintaining strong mentor-student relationships were critical to the success of online supervision. Institutions have to review and redesign policies to meet the needs of teachers and learners effectively (Johnson et al., 2020). Despite the challenges, these adaptations were crucial in staying afloat in the 'new normal' and provided valuable lessons for future educational practices.

The graduate studies faculty redesigned course content and delivery used online tools to deliver instruction and conducted thesis and dissertation advising and similar mentorship responsibilities through the use of digital video conferencing applications. As such, remote academic mentoring gained popularity to sustain the functionality of the university. This is evident when the participants mentioned: *We connect via group chat and I find the dissemination of communication, announcements, and even tasks easy with the group chats. (F1), I have observed that students, given their maturity, generally adapted and responded positively to the learning tasks resulting in increased productivity. (F4),* and *As I mastered teaching in a virtual classroom, I noticed students becoming more responsive. If not in the Google classroom, we communicate via Messenger as an alternative platform. (F3)*

To the students and staff, balancing academic responsibilities with personal and technological constraints were evident. Additional roles and support services, new workflows and task management were in place to ensure continuous delivery and quality graduate education programs. Bacus and Tagalog (2023) purported that one's willingness to learn and the acknowledgement of his roles in an institutions spell a difference in the workplace. This adaptability and commitment were essential in overcoming the hurdles posed by remote learning environments and sustaining educational standards. As one student puts it, '*Adjustment wasn't easy, especially on navigating and manipulating online applications.*

As to the enrollment during the pandemic, it was lengthy because processes were done online. You have to wait for days before the confirmation of your payment will be received by the finance officer. (S3). This is seconded by the other students (S1 and S5). The online set from enrollment of the conduct of classes was convenient. I find it enjoyable. I took classes at my convenience. I could use my phone or my laptop (S1).

The stakeholders were forced to adapt to remote graduate education, where academic responsibilities, personal constraints, and technological limitations had to be balanced. Although the transition posed several challenges, the university implemented additional roles and support services, new workflows, and task management strategies to continuously deliver high-quality graduate education programs. The process was an opportunity for everyone to learn and adapt to the new digital landscape. Some may find the online setup enjoyable, while others faced difficulties but were able to learn new skills.

Resiliency to chart new courses. The unprecedented school closure underscored the need for resiliency which involved adapting to new learning environments, adopting innovative strategies, and maintaining effective support systems posed by remote learning. Everyone had to develop time management skills and technological requirements, while the office staff took an expanded role to provide additional support to ensure continuity in educational services. This resilience helped them bounce back, survive, and thrive amid the educational crisis similar to how Moore (2019) defined resilience as a positive adaptation despite adversity. This resilience to chart new courses is evident in the responses of A1, F1 and OS1: *As faculty, at first, I encountered difficulties adapting to the online platform. I had difficulty at first with the implementation of using online tools for assignments, quizzes and exams, and providing feedback to students. It was good that there was technical support provided that I somehow managed to successfully navigate through the platforms. (A1); I learned to implement consistent and timely feedback mechanisms on the use of online tools to support continuous, although it was not easy at first (F1),* and *'There were a lot of adjustments during the pandemic. It took time to put the process in order. There was a lot of trial and error. After one semester things move smoothly and I have already established a system in my work considering the online modality from enrolment to graduation (OS1).*

Resilience or the process of successfully adapting to difficult situations, was evident in the participants' vignettes. This pandemic-induced educational shift steered resilience as evidenced by their narratives. Bozkurt and Sharma (2020) emphasize that resilient educational systems can adapt to changes and continue to function effectively, even in the face of crises. This resilience is crucial as higher education institutions have to pivot quickly to online modalities. Additionally, Johnson et al. (2020) and Murphy (2020) found that institutions that engage in redesigns were better able to meet the demands of the virtual learning environment. These efforts associated with the shifts in work and learning dynamics not only ensured continuity in learning but also enhanced the overall educational experiences, making it more flexible and responsive to the needs of the stakeholders involved.

Online supervision afforded an opportunity for education stakeholders to develop resilience and adaptability. The university's ability to adapt and improve its systems is a testament to its commitment to providing quality education despite the challenges. The stakeholders' ability to navigate these challenges and find ways to stay engaged is a testament to their resourcefulness and determination. This experience, as a response to the clarion call, makes educational institutions better prepared and equipped toward implementing and sustaining a transformative graduate education program.

Theme 3: Perceptions of stakeholders on Online Supervision
The COVID-19 pandemic accelerated the move from traditional in-person supervision to online platforms in graduate education, having a substantial influence on program supervisors, teachers, students, and staff. Faculty members were pushed to adapt their mentoring skills to virtual scenarios, which frequently involved technological hurdles and the need to maintain successful contact. Graduate students' academic and research dynamics varied, with varying degrees of satisfaction and stress as they dealt with remote supervision. Program supervisors and staff members responsible for enabling this transformation faced enormous demands to ensure the efficient running of online services and resources. These groups' perceptions of online supervision throughout the pandemic reveal a complex landscape of adaptation, resilience, and continual evolution in higher education.

Innovative online supervision methods
Chigona and Sosibo (2024) said during the COVID-19 outbreak, the innovative online supervision methods in postgraduate studies greatly benefited both students and supervisors. They are also useful after the COVID-19 pandemic, as postgraduate students can access research information and engage with peers and supervisors at any time, making supervision more flexible for both supervisors and supervisees. A staff (S1) shared that "*responding to online requests of documents was quicker than face-to-face for she will only navigate the computer to attend to the faculty or students' queries*". Similarly, another staff (S2) narrated that "*online transactions like securing necessary documents, processing the enrollment, scheduling and conducting of thesis and dissertation defense, online comprehensive examinations, and online checking of comprehensive examinations were easily facilitated*".

However, a staff (S3) emphasized that "*online transactions were more tiring than face-to-face transactions. For instance, necessary documents were forwarded for checking and it took time for the concerned office or individuals to respond, unlike in face-to-face transactions where a physical follow-up was faster and easier*". The experiences of the support staff were validated by the academic administrators who shared that "*online supervision of the graduate studies was less stressful since the graduate school students were more mature and could readily adapt to online transactions*" (A1). Another academic administrator (A2) said that "*online transactions were efficient since for students' attendance in class, submission of requirements, securing the safety of the students as well as monitoring faculty attendance in conducting online classes since the Dean or Program Chairs could join virtually through the Zoom App or Google Meet*". A similar experience in online supervision of classes was reported by a faculty who reported that "*the program supervisor required them to fill out the Google Sheet with the*

Google Meet link and schedule for virtual observations of the class for monitoring" (F1) and the "*the program supervisors were able to observe online classes as scheduled"* (F3). The experiences of the program supervisors and support staff revealed that there were challenges while transitioning from face-to-face to online transactions at the onset of the COVID-19 pandemic. However, the provision of online tools helped them to continue serving the academic community.

Supervisor's support strategies

On the other hand, the supervisor's support strategies, which facilitate learning processes and empower students through interactions, may help to improve research confidence and competence, thereby contributing to improved research quality and researcher identity development (Albertyn & Bennett, 2020). A program supervisor (A2) mentioned that "*although online supervision of thesis or dissertation mentoring is quite challenging in ensuring that the graduate school student was the one who makes the research paper, I conducted online individual sessions to critique and examine the paper. In this way, I can evaluate the student's knowledge about the research submitted"*. More importantly, "*the dissertation adviser's constant follow-up, encouragement, support, and timely feedback helps in completing the study"* (S2). In support of the claim of the graduate school student, a faculty member mentioned that "*the online class interaction allows easy access for the adviser and the advisee to meet and talk about the study. The consultation about the study could be done anytime and anywhere. Questions about the study could be addressed right away"* (A2). These utterances revealed the important role of supervisors in assisting and mentoring the students in an online environment. Their dedication and commitment to help the students plays a great role in fostering student success.The experiences of the graduate school program supervisor and student support the conclusion of Nash (2021) by encouraging graduate students to establish positive relationships with their supervisors and mentors. Furthermore, it would improve the educational experience and increase mental health, especially among underprivileged groups, during the COVID-19 pandemic.

Challenges in online thesis supervision, included the need to adjust to the shift from offline to online thesis supervision, ineffective communication between supervisors and students, a lack of time to access online media, difficulties in collecting field data, and a decrease in students' active participation in online thesis supervision (Djatmika et al., 2022). However, in the present study, a student revealed that "*effective online supervision connotes using a user-friendly communication platform to ensure that students received the necessary support, feedback, and mentorship at the right time. The program supervisors, faculty, and students need to have clear lines of communication, strong support networks, and creative ways to encourage cooperation and mentoring"* (S4). As Tatnell (2020) emphasized, supervisors should set clear expectations for the frequency and quantity of interaction, attendance at meetings, the type and timeliness of feedback, and the roles and tasks that are appropriate for both supervisor and student. Supervisors should focus on developing relationships with students and laying the framework for a welcoming, open, and participatory relationship.

The program supervisors, faculty, staff, and students revealed positive views about online supervision in graduate school as described in their experiences.

Multiple initiatives were done to sustain the quality of services during the COVID-19 pandemic ensuring the completion of the degree program that the graduate school student enrolled in. Therefore, the best practices from the students' entry to exit are sustained to create a supportive and nurturing environment.

Theme 4: Effective Online Supervision Strategies
Supervision in education management is an endeavor that supports and aids educators in order to help them enhance, grow, and raise the caliber of their instruction as well as create productive and efficient learning environments for their students. Teachers receive support and direction in managing their students' learning, including planning lessons, carrying them out, and evaluating their progress (Rusdiana et al., 2020).

Online supervision differs somewhat from traditional supervision. In traditional supervision, the graduate students and supervisors are situated in a certain location, like a campus, workplace or home. Despite this, in online-based paper supervision, the supervisors and the learners are located in different places (Suparman, 2021). *When the pandemic started, I was worried that I cannot finish my research design, But the supervision shifted to online meetings and interaction and I am very happy(S3)*. A plethora of currently available technologies provide incredibly efficient virtual classroom, conference, webinar, and online learning management (Ghani, 2020). To keep everyone informed of any changes or revisions, administrators kept in regular contact with teachers, students, and parents via emails, newsletters, and online meetings.

Clear communication. The establishment of supportive relationships, a structured supervisory process, the use of technology, adaptation and flexibility, ongoing professional growth, ethical considerations, and professionalism are all necessary for effective online supervision. Setting established goals, targets, and expectations early on makes it easier for the supervisee and the supervisor to agree on what has to be accomplished. A supportive environment is created by making sure there is regular contact through planned meetings, check-ins, and responsive feedback mechanisms. Accessibility and participation are improved by utilizing a range of communication methods, including email, instant messaging, video conferencing, and collaboration platforms.

In this study, the participants' suggestions for ensuring effective online supervision as shown in their narratives: *Having clear and concise communication channels and guidelines to ensure a shared understanding between administration and faculty (A1).* This implies that a school's ability to run smoothly depends on having clear and precise communication channels and policies in place, especially during trying times. They create an environment that is cooperative, effective, and encouraging for the benefit of parents, teachers, students, and administration. The goal of remote online teaching and research supervision has become even more challenging with schools and labs currently closed and researchers and students confined to their homes in an attempt to limit the spread of COVID-19. Although most supervisors have the necessary leadership and management skills, they will

now need to apply these skills, especially when they are not interacting face-to-face with their employees and students (Ghani, 2020).

Open communication, teamwork, and a supportive learning environment are all facilitated when the supervisee and supervisor actively cultivate a good and trustworthy relationship. Maintaining motivation and resilience, particularly in trying circumstances, can be facilitated by offering emotional support, encouragement, and constructive criticism. By being available and accessible, one enables supervisees to ask for help and support when they need it. Personal commitment is very evident as student (S2) mentions that *I feel my adviser is very committed to her work. Moreover, the administration motivated us to finish on time in spite of the pandemic.* This is true in the study of Van Rensburg et al. (2016), claiming that because supervision is a concentrated type of teacher-student interaction, it necessitates professional dedication. To reach a successful conclusion, it is necessary to acknowledge and participate in the different layers of the supervisor-student relationship.

Offering assistance and training. Professors and students can use online resources and tools with skill and traverse the system with ease. Monitoring progress regularly, giving prompt feedback, and modifying targets as needed promote learning objectives' accomplishment and continual improvement. Using the right technology for the job, such as project management software, collaborative documents, and video conferencing platforms, increases productivity and promotes easy communication. Ensuring supervisees have access to pertinent literature, educational resources, and support materials enables them to gain a deeper understanding and proficiency in their field of study or practice. According to the school administrator (A2): *It's not as stressful as a bachelor's degree. Graduate students are, as I've already shown, more mature students. But it also depends on what you are supervising — a job, a course, or the coaching of a thesis or dissertation. With online supervision, there are times when it's difficult to determine whether the student completed the assignment entirely on their own. However, because we have individual sessions and online critiquing, as a teacher and administrator working with research subjects, I can usually detect if they completed the task. Since they are the ones who constantly defend the job, it is evident whether they completed it or not.* The supervisor needs to show concern and commitment, not only to the student's intellectual development and discovery of their academic potential, but also to the development of an understanding of the student as a whole person with other roles and responsibilities which may include family, work and other non-academic activities.

An administrator (A1) said that: *utilizing collaborative online spaces to facilitate interaction and knowledge sharing among teachers creates a supportive community of practice. Moreover, there is a constant interaction between the adviser and advisee as evident in the dean's report.* The interaction between the learner and the supervisor serves as the setting for the interrelated learning and growth process that is called supervision. With the multitude of communication mediums available, interpersonal skills to improve the relationship have become increasingly vital. Both the supervisor and the student must be tolerant of one another, just like in a mature and professional relationship. The supervisory relationship benefits from

commitment based on responsiveness and honesty since it fosters both an academic and a socioemotional relationship. Effective and involved supervision will remain crucial to the postgraduate experience, even with the variety of support systems accessible to students (Van Rensburg et al., 2016).

To foster meaningful learning, growth, and professional development, effective online supervision involves established procedures, clear communication, supportive relationships, technological competency, flexibility, ongoing development, and ethical considerations. Institutions and supervisors can establish an empowering and rewarding supervisory experience that fulfills the goals and aspirations of supervisees in a variety of professional and educational contexts by giving priority to these components.

Theme 5: Opportunities and Challenges in Online Supervision
The prevalence of online supervision at the onset of the pandemic presents opportunities and challenges culled from the narratives of the informants.

Opportunities
Enhanced flexibility. Online instructional supervision offers opportunities that significantly improve the academic experience for both students and supervisors. One such opportunity is enhanced flexibility that allows timely and personalized interactions between the student and the graduate school faculty. *"With online supervision, I can consult with my professor or access resources even outside the regular class schedule."(S2)* This flexibility enables students to access supervision sessions and academic resources from any location with an internet connection, making it easier for those who may have work commitments. On the other hand, the asynchronous nature of online instructional activities allows students to review materials, participate in discussions, and complete assignments during their most convenient schedule. This can enhance learning outcomes by accommodating different learning paces and styles, enabling students to engage with the content more comprehensively. Professors also benefit from this flexibility, as they can manage their time more efficiently and provide timely and well thought of feedback and support. "*Anytime of the week, I posted messages, called them. I required them to submit an email so I could check and return with my comments*" *(F3).* This flexible arrangement can significantly reduce stress and increase motivation, as students and supervisors can balance their academic responsibilities with other life commitments. Additionally, online instructional supervision utilizes various digital tools and interactive technologies to create a more engaging and dynamic learning experience. According to a study by Chen et al. (2020), the adaptability of an online learning environment helps students maintain a higher level of engagement and motivation as they learn according to their individual needs and preferences.

Increased access to resources. Another potential benefit of online supervision is increased access and availability of resources. Online platforms provide students and professors with a vast array of digital resources, conferencing tools, collaborative software that facilitate interactive and meaningful learning experiences. Digital libraries like JSTOR and Google Scholar allow graduate students to access a wealth of scholarly articles and books without the need to

visit a physical library. This access to resources enhances the learning experience by providing timely support and fostering a more self-directed learning environment (Johnson et al., 2018*). As one informant shared: "So like, we can access resources and receive feedback from them with a shorter waiting time, compared to face-to-face. So we will just update and check our Google Classroom* (S1). Online supervision encourages learner-centeredness as it fosters greater autonomy and self-direction among students. This increased responsibility can enhance critical thinking and problem-solving skills, as students learn to navigate challenges independently and make informed decisions about their academic progress. This shift towards a more learner-centered approach helps cultivate empowered learners who are capable of self-directed learning and lifelong education.

Save time and expenses. The opportunity to save on time and financial costs for both students and professors is evident in online instructional supervision. Students and professors engage in supervision sessions from the comfort of their own homes reducing travel time and associated expenses. As one informant opined: "*I can save my time, my money, my energy, and very conveniently, to be..(S1).* Moreover, another student said: "*Online learning is cost-effective as learners need not come to every class.*" *(S5).* The financial savings facilitated by online instructional supervision contribute to making graduate education more accessible and affordable, promoting greater equity and inclusivity in higher education (Allen & Seaman, 2017).

Challenges
Reliable internet and other technological difficulties. Online instructional supervision in graduate programs, while offering numerous opportunities, also presents several challenges. Access to reliable internet and other technological difficulties pose significant challenges in online supervision. Most students and faculty members experience intermittent connectivity as they do not have access to high-speed internet, which is essential for smooth communication and the effective use of online learning platforms. As one student informant said; " *Since I was only accustomed to using mobile data, I faced some difficulties, the most prominent of which was internet connectivity. There were days when I was unable to attend classes because my mobile data was insufficient.*"(S5) This digital divide can exacerbate existing inequalities, as students from lower socioeconomic backgrounds or rural areas may struggle to participate fully in online supervision sessions. Technical issues such as software malfunctions, connectivity problems, and hardware failures can disrupt the learning process and cause frustration for both students and supervisors. According to a study by Allen and Seaman (2017), technological barriers pose a major concern in the implementation of online education, as they can impede the delivery of instruction and negatively impact student engagement and satisfaction.

Additionally, the reliance on technology for online instructional supervision requires both students and supervisors to possess a certain level of digital literacy. Not all students and faculty are equally adept at using digital tools and platforms, leading to potential difficulties in navigating the online environment. As noted by Means et al. (2014), successful online instruction depends not only on the

availability of technology but also on the proficiency of its users, highlighting the need for comprehensive training and support systems to address these challenges.

Frequency and quality of interactions. Another challenge in online supervision is the frequency and quality of interactions between professors and students. The absence of physical presence in an online environment can lead to feelings of isolation and a perceived lack of support, potentially diminishing the quality of student engagement. Scheduling regular virtual meetings and classes can be difficult due to intervening schedules, which may reduce the frequency of meaningful interactions. *I still prefer hybrid and not pure online, so I have face-to-face interaction with my classmates (S3)*. Diminished personal interaction can impede the development of a strong mentor-mentee relationship, crucial for effective supervision (Guerra, 2022). Moreover, maintaining academic integrity and ensuring the quality of supervision becomes more complex in a virtual environment, necessitating robust training and clear guidelines for both supervisors and students (Nasiri & Mafakheri, 2015). "*I think we need to heighten the teacher's capability to cope with technology to ensure quality supervision*" *(*S3). Addressing these challenges requires institutional support, investments in technology infrastructure and capacity building workshops to help both supervisors and students adapt effectively with the demands of online supervision.

Managing expectations. Communication can be more difficult to achieve without non-verbal cues such as body language and facial expressions, which can lead to misinterpretations and confusion. *As one informant said: Effective online supervision requires a two-way process of inputs and feedback. It also requires a clear agreement between faculty/supervisor and students so that expectations are set and evaluation parameters are clear. (A1)* Supervisors must set clear expectations and guidelines for communication and engagement to mitigate these issues. Establishing a strong online presence and fostering a sense of community is essential for managing expectations and enhancing the overall quality of interactions in a virtual learning environment (Garrison & Cleveland-Innes, 2005). Furthermore, as facilitators of resilience-building, Borazon and Chuang's study emphasized the importance of the environment, personal experiences and background, and institutional initiatives.

5. Conclusion
The online supervision during pandemic in higher education has implications for theory and practice. It highlighted the necessity of considerable alterations to academic procedures, the flexibility of educators and students in handling digital workloads, and the invention of new techniques to guarantee efficient supervision. It focused on issues like the need for increased digital literacy and technical barriers in addition to opportunities for increased flexibility and accessibility. This shift highlights the complexity and innovative nature of graduate education in a digital context. It emphasizes how important it is to reconsider educational frameworks and ensure that there is clear communication and robust support systems in place to help students succeed academically in order to encourage online modalities. It is recommended that ongoing investment

in human capital and technological infrastructure by educational institutions should be pursued to secure sustainable educational outcomes for students in the long term. Moreover, continuing professional development should be prioritized to upskill and reskill the faculty. By making this commitment, educational leaders, educators, students, and staff will be equipped with the knowledge, tools, and resources they need to succeed in a digital learning environment and successfully address changing needs.

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