Doctoral Students' Experiences of Digital Learning and Support Mechanisms in a Distance Education System

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Abstract

This qualitative study aimed to explore digital literacy and learning, the university support services, particularly in the form of supervisory and peer support offered by a public sector distance learning university in Pakistan. Data were collected involving 16 semi-structured interviews and 3 focus group discussions (FGDs), allowing a total of 25 doctoral students enrolled in a distance education program in different semesters to participate in the study after selecting them through snowball sampling. Thematic Analysis was utilized to examine the collected data. Inductively coded data emerged into themes including digital literacy, supervisory support, and peer support, indicating that distance learners encountered several challenges due to insufficient support services in the University. To address these challenges, it is recommended that policymakers implement a university monitoring dashboard, provide digital literacy training for both students and supervisors, and ensure full-time access to the university's digital library. It is anticipated that this study will significantly contribute to the existing literature by aiding in the development of digital literacy skills programs and a support mechanism for doctoral distance learners.

Keywords: Distance learning, supervisory support, digital literacy, peer support, phenomenology.

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Introduction

Supporting students is not a recent development, but rather has historical origins dating back to 1918. Thorpe (2002), Krishnan (2012), Simpson (2002), and Tait (2000) provided the descriptions of student support services in distance education. These services play a crucial role in supporting the ongoing progress of distance doctoral studies. It offers study support, advice, and guidance, aiming to identify and overcome challenges that could slow down students' academic progress. These services are provided to support distance PhD students in their personal, social, and academic development (Farajollahi & Moenikia, 2010). Supporting facilities encompass services and activities that contribute to facilitating and enhancing students' educational experience (Krishnan, 2012). The objective of an educational institution in providing these services is to support students in achieving the preset objectives and goals of the curriculum. Supporting services are provided throughout a student's academic journey, from admission to completion of their studies, to ensure equal access to standardized study materials (Farajollahi, & Moenikia, 2010). The services offered to students are customized according to their attributes and the particular study programs they are enrolled in. Supporting services for students are organized to accommodate their individual cognitive needs and must align with the particular environment (Aberra & Booyse, 2021).

These services aim to reduce feelings of isolation among students and facilitate a connection between distance education institutions and their students. Because supporting services rely on particular circumstances, it's not feasible for one kind of assistance to offer to the diverse needs of every scholar, who varies in individual traits (Aberra & Booyse, 2021). The integration of computer technology in educational institutions led to an increased demand for learner guidance, facilitating personalized support for students. In DE, students typically have access to a range of support services, including ICT, tutorial services, and specialized student assistance (Shabani & Maboe, 2021). The services are designed to assist students in managing academic challenges, improving their understanding of complex subjects, and ultimately enhancing their overall academic performance. The enhancement of students' educational capacity involves a disciplined and progressive acquisition of resources and proficiencies that can amplify their capabilities and expertise in conducting research proficiently. This empowers students to foster more strong connections with their supervisors (Wang et al., 2013). Support services assist students in their academic success by providing access to library resources, enhancing writing skills, and streamlining departmental processes (Manathunga, 2005).

In distance learning, the significance of interactions lies more in their quality rather than their quantity. Prioritizing meaningful and productive interactions among students is vital, as opposed to only on the quantity of interactions occurring. Despite infrequent interactions, students may still find ease in the level of interactions they experience. Students with infrequent interactions may also find their interaction experience to be satisfactory (Picciano, 2002). Interactions among peers come with numerous positive aspects, including a willingness to help, valuable chances for learning, the exchange of knowledge and learning experiences, the establishment of positive role models, and the provision of constructive feedback (State et al., 2012). On the other hand, peer interactions within an institution can also cause several negative aspects, including lack of cooperation, one-sided communication, less interest, differing learning objectives, lack of respect, and reluctance to participate. In distance learning, without peer interaction, students might experience a sense of isolation from both their classmates and faculty members. Yet, engaging in mutual interactions with peers can alleviate the feeling of isolation and foster a greater interest in their studies. Certain students expressed a desire for their professors

to engage in discussions, while others were not aware of the availability of study groups (Zhang et al., 2021).

Those students who lacked interest in peer interactions pointed out that the effectiveness of these interactions is dependent on learning styles and the curriculum content (Liu, 2008). Engaging with peers in DE can enhance the interest and involvement of doctoral students through mutual interaction (Dixson, 2010). Peer interaction can lift the knowledge and learning experience of distance doctoral students (Stylianou & Zembylas, 2018). It plays a crucial role in developing knowledge, offering support, and attaining academic success. It aids students in progressing within their respective academic domains (Lim et al., 2012). Engaging with peers proves highly advantageous throughout the entire degree attainment process (Castano-Munoz et al., 2013). On the flip side, infrequent peer interaction could result in unawareness and an overreliance on the supervisor. PhD students in distance learning have restricted opportunities for discussing their research with peers. This results in a restricted number of formal interactions between them. The present study is an attempt to explore how doctoral students experience digital learning and support mechanisms in a distance education university in Pakistan.

Research Design

Phenomenology is founded on actual experiences associated with the individuals. Furthermore, it is validated through real-life experiences and validates those experiences from participants' perspectives (Van Manen, 1990). Phenomenologists are primarily concerned with grasping the intrinsic essence of concepts. They do not focus solely on isolated factual data, but instead, seek to understand through inquiries of "what?", "how?", and "why?" (Hoffding & Martiny, 2016). Engaging in the study of phenomenology has aided in acknowledging and revealing the genuine and interconnected nature of human interactions and behaviors (Papadimitriou, 2012). The choice of a phenomenological methodology for the research was driven by the distant nature of the study, as it proved to be the most suitable approach for uncovering the intricate and complicated realities of students' encounters.

The PhD students took an active role in interpreting and understanding their own experiences, rather than being treated as passive objects of study. Through the application of this framework, the researcher maintained his epistemological standpoint throughout the study and derived an interpretation rooted in the significance that doctoral students attributed to their experiences in distance education. In a phenomenological case study, the researcher explores and understands the shared as well as unique facts of the learning experiences of the participants (Hickman & Kiss, 2010). When multiple participants are included, it leads to a more all-encompassing conclusion regarding a particular phenomenon.

Participants of the Study

Snowball sampling was utilized for data collection since the university administration office was hesitant to furnish precise information regarding students enrolled in PhD distance learning programs in a distance education university. The snowball sampling technique entails choosing individuals from a specific population, who subsequently assist in identifying and enlisting additional participants for the study (Sadler et al., 2010). This process persists sequentially until the desired sample size is achieved or until data saturation is reached. In thematic data analysis studies, there is no specific guideline for establishing the optimal sample size, which can pose a challenge for PhD studies. Selecting an adequate sample size can be a complex task, with the necessary number of interviews ranging from four to ten (Slavin & Smith, 2009). Thus, 16 PhD students enrolled in a distance education program were selected for semi-structured interviews

and 3 focus group discussions (FGD) with 3 participants in each FGD were also conducted allowing a total number of 25 doctoral students in distance education selected through snowball sampling. The male and female students were recruited who were studying in different disciplines and different semesters of the doctoral program,

Data Collection

In numerous qualitative studies, researchers utilize face-to-face semi-structured interviews as a direct and effective means of gathering comprehensive information about a specific phenomenon (Irvine et al., 2013). In this particular study, the focus was on investigating the firsthand experiences of distance doctoral students in a public sector university in Pakistan. The choice of face-to-face semi-structured interviews was crucial for obtaining contextual data. The researcher conducted a total of 16 individual semi-structured interviews and additionally conducted 3 focus group discussions with distance doctoral students. The focus group in this study aimed to validate and clarify the essential invariant structures of the phenomenon (Bradbury-Jones et al., 2009).

Data Analysis

Effective qualitative research provides multiple interpretations based on the collected data. Thematic analysis is suitable for identifying and detecting the facts and figures that shape the dilemmas presented by the participants, ensuring consistency with the data. It is not fair to overlook the participants' experiences in the presentation; appropriate justification must be provided for their beliefs, behavior, and etiquette. Thematic analysis, which includes the examination and analysis of themes in participants' responses, aligns with this approach and offers valuable insights into their perspectives (Creswell, 2013).

Findings

Digital Literacy

Digital literacy skills are very important for the distance learners in ay education system. Participants have varied experiences while learning in distance education system. A doctoral students, participant 19 remaked during the interview, *"I have faced numerous problems in conducting successful research due to my incompetency in utilizing these skills". Similarly,* participant "17" added, "*Honestly speaking, it was very difficult for me to use software like NVIVO and SPSS to analyze data and draw conclusions. Additionally, having online access to these programs was a significant hurdle. We often had to waste many hours using shared computers*".

It is clear from this discussion that a lack of digital skills can negatively affect doctoral students' competencies. Therefore, they must be proficient in using digital tools to prepare attractive presentations of their data and communicate their findings effectively. Training in digital literacy skills is also obligatory for teachers who conduct online classes. With the enhancement of online learning, proficiency in using digital tools is of crucial importance for ensuring effective engagement between scholars and teachers in online classes. A participant "10," whose research proposal is currently underway, expressed his experience:

> *The lecture method was utilized in online classes, while in face-to-face sessions; various digital technologies could be employed, including multimedia, audio-visual aids, and electronic whiteboards. However, in online classes, most of these digital technology tools were not implemented.*

If educators are not adequately trained to use technology in online classes, it becomes challenging for students to learn efficiently and proficiently. Students' achievements and performance are also greatly affected. Such practices result in student disengagement and boredom in online learning.

In online learning, insufficient digital training posed a significant challenge for most participants. Acquiring digital training is vital not only for teachers but even more so for scholars. Participant "4," whose research proposal has been submitted but not yet defended, states:

> *When conducting online classes, employing digital teaching resources is crucial to improve teaching effectiveness and foster engagement. Obtaining digital education is not merely essential for learning but especially vital for doctoral scholars to accomplish their research.*

Digital resources indeed play a crucial role in modern education, serving to enhance the quality of teaching practices and facilitate advanced research. Participant "5" expressed the importance of digital training: *"The University ought to organize workshops focusing on digital proficiency, which would facilitate the researcher in completing their assignment."*The respective university has to provide distance education programs to hold various training sessions on the effective utilization of digital technology for all remote learners. The significance of ICT and training in digital devices cannot be overlooked, even in face-to-face learning. However, their importance and necessity become even more critical in doctoral studies. Currently, distance education relies heavily on the use of information technology. Distance learners may encounter numerous challenges related to digital literacy. Referring to the situation mentioned above, Participant "1," who has just initiated his research proposal, shared his experience in the following words:

> *A doctoral student in a distance education (DE) program lacked access to a digital literacy training program. The university had no structure for digital literacy training, despite having launched an online doctoral program. There is no institutional support available for this need.*

To a certain extent, the absence of digital literacy education posed a challenge for distance education researchers. Participant "2," engaged in developing his research proposal and displaying a keen observant nature, described how the character of the research influenced the decision-making process regarding research methods, expressing his perspective as:

> *Indeed, the type of work does affect the selection of digital devices, as I'm conducting mixed-method research utilizing surveys and interviews for data gathering. Additionally, I rely on "SPSS" for quantitative data analysis.*

The research nature can influence the selection of digital devices and tools utilized for data collection and analysis. Therefore, it's crucial to opt for digital tools capable of accommodating various data formats such as surveys and interviews. The selection of digital tools and devices holds significant importance. Moreover, it's essential to consider the compatibility of these tools with the software employed for data analysis. This ensures the efficiency and precision of the research process. Participant "9," holding an MPhil degree in mathematics and currently serving as a principal, remarked:

> *Our teachers tasked us with self-learning the APA style instead of providing instruction on such IT-related skills. I frequently felt the necessity for digital training throughout my doctoral studies, particularly when dealing with data analysis. However, the university did not offer digital training to address our challenges.*

Typically, students possess minimum digital proficiency before commencing university education. The aforementioned participant noted that it is inherent in human nature to necessitate training in any new area of study, emphasizing the importance of furnishing pertinent digital instruction for completing research tasks. The university ought to offer sufficient knowledge and expertise to meet the requirements of the students. Supervisors should actively mentor scholars in addressing the challenges encountered in their research accomplishments. Digital libraries serve as virtual collections of digital assets, encompassing literature, essays, visuals, and

multimedia content, accessible and searchable via electronic means. These resources offer the advantage of being accessible via online platforms, providing a convenient and readily available means of obtaining information. Information sources play a pivotal role in modern research practices. The public sector university provides on-campus access to digital libraries and resources. During the focus group conversation, the students recounted their experiences with on-campus library services: Participant "20" affirmed satisfaction with the level of support services such as the on-campus library, remarking, "*We could retrieve various journals, articles, and dissertations related to our interests.*" Participant "21" concurred, stating, "*Indeed, I'm thoroughly impressed by the assistance offered by the on-campus library*." Participant "22" expressed contentment with the library's support, noting, "*The university library also provided me comfortable environment for research and study, alongside access to the latest research findings.*

Since doctoral scholars often conduct their research from home or off-campus locations, this could pose a significant obstacle to their academic advancement. Access to digital libraries on a full-time basis could make the research process smoother for scholars. However, the public sector university only provides on-campus library services.

From virtual classes to digital evaluation, all forms of assessments are conducted with the assistance of information technology. Online assessment aims to evaluate participants' comprehension and competence in a specific field without physical presence. It enables swift and transparent evaluations of candidates' progress and grades. Additionally, it offers the benefit of providing scholars with concise feedback and pinpointing areas of weakness in their learning. Regarding online assessment, Participant "3," who is currently drafting his synopsis, articulated his perspective as:

> *There are various approaches and instruments accessible for online evaluation that automatically assess the exams and allocate the grades. Inexperienced teachers in digital technology are incapable of experiencing the convenience of digital grading.*

The student has highlighted that digital tools are more efficient and effective in evaluation, ensuring the quality of online learning. Additionally, he mentioned that this method saves time and requires less cognitive effort. However, a lack of technological knowledge and skills serves as a barrier in online learning and assessment. Online assessment has transformed the evaluation system in education. It enables teachers to digitally evaluate scholars' learning. The same participant shared his personal experience with online assessment, stating, "*I participated in an online multiple-choice test during the midterm exams, but the final exams were conducted on campus, requiring physical attendance*." The respondent mentioned that the university initially introduced online testing at the program's outset. Only multiple-choice tests were conducted online, as they require fewer skills. Subjective tests were exempted due to the need for additional tools and digital proficiency. Digital technology has simplified many research tasks for researchers, including accessing digital libraries, conducting literature reviews, and analyzing data. Effective research is significantly challenging without proficiency in digital skills, which are regarded as the foundation for conducting research. Online educational platforms and websites are assisting scholars, educators, and even parents. Participant “15,” currently engaged in article writing, conveyed his encounter with digital literacy as:

> *For an online lecture, I utilized a no-cost application called Zoom, and during the 40 minutes of this virtual session, I experienced a sensation akin to being in a physical classroom. Similarly, numerous online assessment tools exist. However, educators often fail to take advantage of such resources due to insufficient digital literacy.*

Digital tools offer convenience and simplicity in the learning environment, whereas a deficiency in digital literacy skills can severely hinder progress. It can be asserted that digital illiteracy is

the primary barrier to the advancement of online learning. In contrast, individuals who are digitally native are more proficient and comfortable in utilizing technology in the teaching-learning process. Growing up in the era of Information Technology, they are more adept at accessing modern research through the application of digital technology. Participant "11" expressed his positive experience with online classes, stating, "*Yes, I have found online classes to be more enjoyable than traditional ones, and I found the coursework to be very beneficial and engaging. I particularly enjoyed discovering and consuming digital content*." Native scholars view online classes as more efficient because they offer an online platform for discussions and interactions between scholars and teachers.

They appreciate the opportunity to connect with the global student community, which is not available in the traditional education system. Analysis of the interviews indicated that PhD scholars perceive digital literacy training as the ability to learn at their own pace. Without such training, they would encounter numerous obstacles in completing their doctoral studies. Regardless of the factors contributing to the neglect of providing digital literacy training to distance education scholars, they require fundamental digital training to finalize their research. This theme provided a unique insight into the utilization and implementation of digital technologies. It has also illuminated the advancement of education and support for doctoral scholars to empower them to improve their digital skills. There is a growing demand for scholars and educators to provide them with digital training and access to online resources to continue their research. Additionally, there should be training in digital tools for online assessment and evaluation of the teaching-learning process accurately.

Supervisory Support

Supervisors play a vital role in the doctoral journey as they keep an eye on supervisees and ensure their work aligns with research objectives. They create an environment where supervisees feel heard, appreciated, and supported. An effective supervisor can inspire their scholars and assist them in their research accomplishments. They value scholars' contributions and prioritize their well-being. Supervisors need to have a comprehensive understanding of both the professional circumstances and the individual needs of the participants. The supervisor should serve as a mentor. Demonstrating care for the personal lives of doctoral candidates had a positive effect on the majority of their work. Participant "13" shared his observation regarding the supportive nature of supervisors:

> *I admire my supervisor for staying actively involved in my research proposal, even his hectic schedule. He encouraged and directed me to fulfill the assigned tasks. He consistently listened to my issues with patience and assisted me in finding solutions.*

The participant noted that the supervisor demonstrated engagement and offered guidance. Encouragement from the supervisor boosted the candidates' confidence, leading to improved performance. Demonstrating an interest in candidates' challenges, being an attentive listener, and showing responsiveness can boost their morale. Conversely, the lack of these qualities can negatively affect their motivation. Doctoral students expressed a desire for their supervisors to acknowledge and have more confidence in them. Participant "12," who is working on his dissertation, shared his thoughts as follows: "*My supervisor possesses extensive expertise in his research area. During reviews of my work, he provided highly technical and detailed guidance.*" The study participants emphasized the importance of supervisors' role in delivering better feedback regarding content and possessing a high level of content expertise. Enhanced feedback was described as clear, straightforward, and offering explicit suggestions for improvement.

Participant "3" is currently immersed in his research endeavors after selecting a research topic and has had significant personal interaction with his supervisor. He shared an incident from his own experience, stating: "*My supervisor avoids discussing my issues, which resulted in delays*

in my work. Even when I try to communicate my problems, he responds with, 'That's your issue." Distance education provides an opportunity for education to individuals who are engaged in various jobs or other responsibilities. Students must balance their professional and domestic duties, often encountering numerous challenges. If supervisors fail to demonstrate empathy towards these issues, students may feel disheartened. Participant "5" expressed dissatisfaction with his supervisor, stating: "*I am displeased with my supervisor because he disregards any aspect of my life beyond my research*." The supervisor displayed a materialistic attitude, neglecting the participant's humanity and focusing exclusively on the research. Participants would feel more at ease if supervisors provided moral support to research students.

Participant "2," who is actively working to enhance his data analysis skills, shared his perspective on supervisor support: "*One of our professors invited us to the university for a few days and provided practical instruction on skills that proved immensely beneficial for our research. If other professors had offered similar guidance, our skills could have been further developed*." The supervisor's keen interest in enhancing scholars' research skills brings satisfaction and peace of mind to them. However, not all supervisors adopt such practices. Disregarding scholars' welfare has a damaging effect on research work. Additionally, responsiveness was identified as a valued trait. Although students in distance education typically strive to independently complete their tasks, they still expect essential guidance and responsiveness from their supervisors. They should receive amplified attention and feedback to ensure timely completion of their research. Participant "9," currently engaged in her research publication, expressed her perspective on general support services as:

> *Supervisors commonly offer general supportive services. However, when it comes to statistical analysis, we observe a lack of technical assistance. Despite the university having a statistical department, there is no established mechanism to provide technical guidance.*

The participant has emphasized the necessity of technical assistance in utilizing statistical analysis tools. The provision of technical support services by the university is essential. This highlights students' dissatisfaction with the support services offered by the university. Effective communication of feedback on research procedures has a positive effect on both researchers and the research process as a whole. Skillful delivery of feedback fosters a better working environment, eliminates inefficiencies, and enhances mutual relationships. Feedback plays a crucial role in improving the quality of research work. It is essential not only for supervisors, as it enhances the effectiveness of their work, but also for scholars, as it increases confidence and motivation to complete their work. Participant "8," nearing completion of her doctoral study, articulated the positive effect of effective guidance from her supervisor as follows: *"I feasibly accomplished my tasks only due to receiving suitable feedback after my research topic was approved."*

The research heavily relies on feedback, facilitating the participant in rectifying any shortcomings in their work, thereby bolstering productivity. This ongoing interaction fostered a close rapport between the participant and the supervisor, facilitating the timely completion of tasks. Typically, research supervisors have an overwhelming workload, impeding their ability to deliver timely feedback and allocate sufficient meeting time with participants, thereby hampering their performance. Feedback is integral to the research process, aiding the student in rectifying imperfections in their work and boosting productivity. This led to the participant maintaining regular communication with the supervisor, facilitating the timely completion of tasks. Typically, research supervisors face an excessive workload, impacting their effectiveness and resulting in inadequate feedback and meeting time with participants. Participant "4" recounted his ordeal with exasperation and discourteous conduct:

> *Throughout the course, she was highly accommodating. However, post the Comprehensive Exam, my supervisor's attitude took a drastic*

> *turn. She shifted her perspective entirely, even foregoing simple greetings. Without even a superficial glance, she rejected the research proposal after two months.*

Participant "25" of the focus group-3, expressed frustration over the non-supportive conduct of her supervisor, highlighting that "*Despite her efforts, the supervisor showed little interest in her work. Whenever she presented her research proposal, the supervisor dismissed it without providing any constructive feedback, claiming it did not meet the standards for a doctoral topic."* Similarly, Participant "24" shared his ordeal of feeling neglected and overlooked by his supervisor, "I had attempted fifteen times with diverse topics over a period of five years, but none proved suitable for approval.

Peer Support

The diversity of perspectives offered by various intellectuals assists research students in enhancing their academic abilities and advancing their professional growth. Participant "18" from the 1st focus group highlighted that, "*The value of exchanging perspectives, viewpoints, and experiences, which proved instrumental in overcoming numerous obstacles."* Participant 20 verbalized as, "*His lack of proficiency in utilizing data analysis software led him to express gratitude for a peer who provided training and enhanced his computer skills."* Participant "19" expressed appreciation for a peer, "*I am profoundly grateful to my colleague who assisted me in creating and validating research tools. Together, we collaboratively sourced data for my research questionnaire and validated it using field data."*

These participants underscored the collaborative nature of their relationships with peers, wherein they benefited from shared knowledge, experiences, and skills, resulting in a sense of ease and satisfaction. With the increasing reliance on technology in scholarly pursuits, the need for peer support has grown, particularly for those who may not be well-versed in new technologies. The participants appreciated her peers' cooperation and knowledge sharing, acknowledging that without her guidance, completing their work would have been challenging. Peer support serves to broaden skills and knowledge, facilitated by the exchange of materials and personal experiences among peers, which aids in identifying areas of difficulty. Additionally, peers provide individualized interaction, discussions, support, and motivation. Participant "14," who is currently working on a research proposal, responded to a question about peer support by stating:

> *We shared our internet access and assisted each other with assignments and PowerPoint presentations. My peers helped me to discover solutions to issues in project development related to critical thinking.*

The participants exhibited a profound sense of collaboration among the researchers. They paid attention to one another and worked together to complete their tasks. This kind of interaction fosters team spirit and social bonding, which ultimately leads to the accomplishment of established goals. Participant "1" conveyed his thoughts on peer support as follows:

> *There is no particular system for peer support provided by the university. Although scholars can engage with each other during online classes, "MS Teams" does not facilitate any form of peer interaction after class.*

This statement highlighted the lack of peer support in distance learning, which may lead to discomfort and dissatisfaction among scholars. Scholars should be provided with a platform that enables them to collaborate with their peers. He further elaborated on his experience as follows:

> *Although my classmates were not forced by the university, they assisted me in mastering the use of the LMS portal. I could reach out to them at any time, and they always responded positively. I felt that I*

> *was gaining the same level of information and knowledge as they were.*

The students did not receive training on using the LMS portal. However, some digitally savvy scholars assisted the participant in learning how to use it. They encouraged him to reach out at any time with his issues. This support alleviated his sense of isolation and fostered a strong sense of connection with his peers. Participant "9," an expert in data analysis techniques, expressed his views as follows:

> *Despite the absence of a formal peer interaction platform provided by the university, my proactive approach to social networking greatly benefited me throughout my research endeavors. I was well-informed about the skills and expertise of my peers and sought assistance from them when needed. Additionally, I offered my support to fellow researchers in statistical analysis.*

This story underscores the participant's sociable disposition. She capitalized on the skills of her peers while also offering her expertise in return. This exchange of knowledge and skills serves to narrow skill gaps and enhances workplace productivity, fostering a culture of learning. Collaborative efforts among students also minimize delays in research work. Many students indicated that they utilize telephones or mobile phones for communication with one another. Participant "7," whose research proposal remains unfinished, shared her viewpoint as follows: *"A university peer reached out to inform me about the deadline for research proposal submission."* This thoughtful gesture enabled me to submit my proposal on time. Such acts of support contribute to the nurturing of a friendly environment. In distance education, peer support occurs informally. Peer-to-peer support in learning can be especially beneficial when peers collaborate to find solutions to problems together. There is a significant amount of work required to develop a comprehensive platform for support in distance education.

Discussion and Recommendations

The first theme, "Digital Literacy," emphasizes the importance of students acquiring digital skills and the effective use of various ICT devices by instructors in their teaching. Abbas, Hussain, and Rasool (2019) discussed the effects of digital literacy on the academic performance of higher education students in Pakistan. However, the lack of appropriate utilization of digital tools in online classes can diminish the performance levels of both teachers and students. The absence of digital technology products such as multimedia and e-boards, coupled with inadequate utilization of software like "SPSS" and "NVIVO" for data analysis, underscores a deficiency in digital literacy. Lack of digital resources that would facilitate communication and cooperation between the students and the teachers shall hamper the interaction. It also implies that the doctoral students may not have many chances to converse with the faculty members and discuss their research work, clear their misconceptions and get feedback, thus their progress in their academics.

To sum up, the use of the digital tools is effective in managing time and to control progress; there is always need of these tools because if students do not use them, they might not be able to meet the deadline of submission of research work and this brings stress and frustration. These tools offer access to article and research database, electronic library and other relevant materials. If these resources are unavailable students may lack diverse view and ideas as they carry out their research. Doctorate learners in distance education may lack the opportunity to learn and employ various technologies, essential in academic activities, thus depriving them of professional growth and productivity. Denial of access to digital libraries has an effect on the performance of students since they require a number of research materials. Some of them may not access most of the material they need within this time, thus delaying their research work. This limitation may also

limit the research they can do, possibly reducing the quality of work produced and having problems following new developments in their particular field.

The present and other studies reveal that support system plays a significant role in the success of doctorates during their course of study. It can be provided by parents, close ones, peers, co-workers, group members, and academic advisors. In this study and many others, lack of support has been found to affect student performance detrimental. According to studies by Ross et al. (2013) and Askew et al. (2016), one's relationship with the supervisor may impact the academic outcomes. Interpersonal communication is also significant in learners' academic achievements according to MacKeogh (2006), Da Costa (2016) & Wao & Onwuegbuzie (2011). On the other hand lack of good relationship with supervisors can be harmful, as noted by de Valero (2001). Several other works focus on the role of positive interaction with peers and academic role models for success, as in the works by Lovitts (2001), Holmes & Rockinson-Szapkiw (2020), Earl-Novell (2006), and Moore (2019). The second theme is centered on the type of assistance that the students' supervisors provide to them. Using simple language, supervisors can also advise students on how they could go about their research work as well as give their opinions on how it should be done. These supervisors foster the learning environment; it is the one that fosters consideration for knowledge acquisition and togetherness of learners.

In the various studies, when the professor offers a greeting and smiles, it support the students. The impact of supervisors who arrange meetings to discuss how to help and advise students regarding their academic and personal performance is strongly positive, especially when the student in question suffers from situations like loneliness and work pressure. Its importance lies in the ability to offer students key points of analysis and important viewpoints to help them to develop enhanced and more effective questions and strategies for studying. However, some supervisors are very unprofessional and provide delayed feedback, no advice, and discouraging attitudes. As a result, they can undermine a lot of efforts and even diminish the priorities of the research being conducted. Thus, the behavior exhibited fosters a negative learning climate, thereby discouraging students and having a demoralizing impact on learners.

The third theme underscores the support received from other people. In this regard, the following works reveal that distance learners pursuing a doctorate benefit from peer support. Another important factor that has been highlighted by Dixson (2010), Zembylas (2008), and Lim (2012) is that peers' misunderstanding is present when students do not interact with peers. Castano-Munoz (2013) points out that peer collaborative learning leads to attainment of degrees, Parker (2009), Rockinson-Szapkiw and Spaulding (2014) and Wao and Onwuegbuzie (2011) are in agreement that social/emotional support from peers is important. Doctoral studies are challenging, and since distance learning requires a significant amount of time, students who choose this type of learning face additional difficulties. Peers cooperate in the sense that they exchange information, suggestions, and materials; which may be to assist in preparing assignments or help to choose the area of the research.

They also review articles for the drafts and offer amendment to enhance the standard of their work. Computers help in using the Learning Management System (LMS) portals that are crucial for distance learning students because they are interfaces that give users access to different materials, means of communication, and other resources inherent to their courses. They both go to the perceived portals and discuss on the best way to maximize on these resources. Also, the conversations with peers assist in finding articles and include opposite opinions regarding the topics of the study, contribute towards considering the revised questions and perspectives on the researched problem, and recommend other ways to analyze data or a part of it.

Conclusion

The first theme digital literacy stressed the crucial role of students in the development of digital skills and supervisors on the proper use of ICT devices in their classes. Lack of skills in digital technology by supervisors hinders content delivery demands insufficient to conduct research studies hence affect results. There is also a deficit of one-point access to the electronic libraries for the doctoral students. The second theme, Supervisory Support resides in the kind of encouragement that supervisors give to the doctoral students in both curricular and personal aspects of their education. Nevertheless, some of the supervisors they interact with hold a negative attitude and do not follow up shows students how to behave and this is disappointing and they end up being alone. Third, Peer Support focuses on coordinating with peers in implementing different digital tools to support various research stages. Peer assistance is given through sharing of materials required in assignments, motivation and constructive critique on completed work; this is important in dealing with challenges that are encountered in learning processes to achieve personal education objectives.To improve research yield, the implementation of a "University Monitoring Dashboard" is suggested for facilitating resourceful feedback exchange between supervisors and students. Moreover, all time access to the university's online library and peer interaction through digital platforms is necessary to improve students' retention and motivation.

References

Abbas, Q., Hussain, S., & Rasool, S. (2019). Digital literacy effect on the academic performance of students at higher education level in Pakistan. *Global Social Sciences Review*, *4*(1), 154-165.

Aberra, T. G., & Booyse, J. J. (2021). A Gap Analysis of the Quality of Student Support Services in an Open Distance Learning Institution. *Progressio*, *41*(1), 1-19.

Bradbury-Jones, C., Sambrook, S., & Irvine, F. (2009). The phenomenological focus group: an oxymoron?. Journal of advanced nursing, 65(3), 663-671.

Braun, V., & Clarke, V. (2022). Conceptual and design thinking for thematic analysis. *Qualitative Psychology*, *9*(1), 3.

Castano Munoz, J., Redecker, C., Vuorikari, R., & Punie, Y. (2013). Open Education 2030: planning the future of adult learning in Europe. *Open Learning: The Journal of Open, Distance and e-Learning*, *28*(3), 171-186.

Castaño-Muñoz, J., Sancho-Vinuesa, T., & Duart, J. M. (2013). Online interaction in higher education: Is there evidence of diminishing returns?. *International Review of Research in Open and Distributed Learning*, *14*(5), 240-257.

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches (3rd ed.)*. SAGE.

Dixson, M. D. (2010). Creating effective student engagement in online courses: What do students find engaging?. *Journal of the Studentship of Teaching and Learning*, 1-13.

Dixson, M. D. (2010). Creating effective student engagement in online courses: What do students find engaging?. *Journal of the Studentship of Teaching and Learning*, 1-13.

Farajollahi, M., & Moenikia, M. (2010). The study of relation between students support services and distance students' academic achievement. *Procedia-Social and Behavioral Sciences*, *2*(2), 4451-4456.

Gonzalez, M., & Moore, N. (2020). A Comparison of Faculty and Graduate Students' Perceptions of Engaging Online Courses: A Mixed-Method Study. *International Journal of Educational Methodology*, *6*(1), 223-236.

Hickman, R., & Kiss, L. (2010). Cross-Curricular Gallery Learning: A Phenomenological Case Study. *International Journal of Art & Design Education, 29*(1), 27-36.

Hoffding, S., & Martiny, K. (2016). Framing a phenomenological interview: what, why and how. *Phenomenology and the Cognitive Sciences*, *15*, 539-564.

Irvine, A., Drew, P., & Sainsbury, R. (2013). 'Am I not answering your questions properly? Clarification, adequacy and responsiveness in semi-structured telephone and face-to-face interviews. Qualitative research, 13(1), 87-106.

Juwah, C. (2006). Interactions in online peer learning. In Interactions in online education (pp. 171-190). Routledge.

Krishnan, C. (2012). Student support services in distance higher education in India: A critical appraisal. *International Journal of Research in Economics & Social Sciences*, *2*(2), 459-472.

Krishnan, C. (2012). Student support services in distance higher education in India: A critical appraisal. *International Journal of Research in Economics & Social Sciences*, *2*(2), 459-472.

Lessing, A. C., & Schulze, S. (2003). Lecturers' experience of postgraduate supervision in a distance education context: research in higher education. *South African Journal of Higher Education*, *17*(2), 159-168.

Liu, S. (2008). Student interaction experiences in distance learning courses: A phenomenological study. *Online journal of distance learning administration*, *11*(1), 1-20.

Lynch, A. D., Ferris, K. A., Burkhard, B., Wang, J., Hershberg, R. M., & Lerner, R. M. (2016). Character development within youth development programs: Exploring multiple dimensions of activity involvement. *American Journal of Community Psychology*, *57*(1-2), 73-86.

Manathunga, C. (2005). Early warning signs in postgraduate research education: A different approach to ensuring timely completions. *Teaching in Higher Education*, *10*(2), 219-233.

Papadimitriou, C. (2012). Phenomenologically-informed inquiry in physical rehabilitation: how to do documentation and interpretation of qualitative data. *Physical Therapy Reviews, 17*(6), 409-416.

Picciano, A. G. (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous learning networks*, *6*(1), 21-40.

Rockinson-Szapkiw, A. J., Holmes, J., & Stephen, J. S. (2019). Identifying Significant Personal and Program Factors that Predict Online EdD Students' Program Integration. *Online Learning*, *23*(4), 313-335.

Sadler, G. R., Lee, H. C., Lim, R. S. H., & Fullerton, J. (2010). Recruitment of hard-to-reach population subgroups via adaptations of the snowball sampling strategy. *Nursing & health sciences*, *12*(3), 369-374.

Shabani, D. O., & Maboe, K. (2021). The effectiveness and efficiency of student support services in open distance learning institutions in Africa: a desktop review.

Simpson, O. 2002. Supporting Students in Online, Open and Distance Learning. London: Kogan Page.

Slavin, R., & Smith, D. (2009). The relationship between sample sizes and effect sizes in systematic reviews in education. *Educational evaluation and policy analysis*, *31*(4), 500-506.

State, T. M., Simonsen, B., Hirn, R. G., & Wills, H. (2019). Bridging the research-to-practice gap through effective professional development for teachers working with students with emotional and behavioral disorders. *Behavioral Disorders*, *44*(2), 107-116.

Stylianou, P., & Zembylas, M. (2018). Peer support for bereaved children: setting eyes on children's views through an educational action research project. *Death studies*, *42*(7), 446-455.

Tait, A. 2000. Planning Student Support in Open and Distance Learning. *Open Learning, Vol. 15* No. 3, pp. 287-99.

Thorpe, M. (2002). Rethinking learner support: The challenge of collaborative online learning. *Open Learning: The Journal of Open, Distance and e-Learning, 17*(2), 105-119.

Van Manen, M. (1990). Beyond assumptions: Shifting the limits of action research. *Theory Into Practice, 29*(3), 152-157.

Vlachopoulos, D., & Makri, A. (2019). Online communication and interaction in distance higher education: A framework study of good practice. *International Review of Education*, *65*(4), 605-632.

Wao, H. O., & Onwuegbuzie, A. J. (2011). A mixed research investigation of factors related to time to the doctorate in education. *International Journal of Doctoral Studies*, *6*, 115.

Wao, H. O., & Onwuegbuzie, A. J. (2011). A mixed research investigation of factors related to time to the doctorate in education. *International Journal of Doctoral Studies*, *6*, 115.

Zhang, R., Qiu, Z., Li, Y., Liu, L., & Zhi, S. (2021). Teacher support, peer support, and externalizing problems among left-behind children in rural China: Sequential mediation by self-esteem and self-control. *Children and Youth Services Review*, *121*, 105824.