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Analysis of Teachers' Readiness in Using Digital Technology for Students' Learning: Problems and Potential Solutions

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ABSTRACT

Aim of the Study: This study was conducted to analyze teacher's readiness in using digital technology for student's learning and problems faced by them and potential solutions of their problems.

Methodology: This study used descriptive quantitative design. All male and female secondary school teachers of district Khanewal were considered as population for this study. The sample size was 303 secondary school teachers (182 male and 121 female), selected through a simple random sampling technique. A 45-item self-structured questionnaire was used. The researcher used both the descriptive statistics and inferential statistical techniques to analyze the collected data by using SPSS.

Findings: Teachers believed with a high level of consensus that digital technology can definitely improve students' learning outcome but teachers have to face many hurdles. There is scarcity of digital resources in their schools. Teachers are also lacking hands-on practice for using digital tools.

Conclusion: Teachers' readiness in using digital technology has vital role in promoting students' learning. By making effective use of digital technology, teachers can enhance learning experiences, provide innovative teaching methods which foster creativity, rational thinking, and critical approach towards learning.

Keywords: Digital Technology, Teachers' Readiness, Students' learning, Problems, Potential Solutions.

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Introduction

Individuals born after 1980 are commonly known as "digital natives" due to their heavy reliance on the internet. Computers and the internet have become an inseparable part of their daily lives. Being accustomed to technology, students born in this era are likely to exhibit greater comfort and receptiveness towards online education. However, it is important to acknowledge that not all online students start with the same level of technological proficiency, making it imperative to implement appropriate teaching methods and engaging curriculums to foster an effective learning environment. Adapting to the needs of students through technology is of utmost importance (Ghavifekr et al., 2022). In the modern era, the advancements in the field of digital technology have significantly impacted the way students learn in schools, as discussed by

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Wahyudi (2019). This shift is attributed to various digital technology innovations, Examples include e-learning, virtual classrooms, game-based instruction, and interactive multimedia, and computer-based learning, which have facilitated independent learning among students. With these digital tools at their disposal, learning is no longer confined to classroom walls and fixed schedules. Instead, students can access a wealth of information online through computers and smart phones, transforming the learning process in the 21st century. Consequently, educators and education stakeholders must embrace innovation to adapt to these changes. In the upcoming years, e-book technology is expected to progress significantly with the addition of enhanced graphics, images, charts, and improved reading capabilities, as suggested by Gomez (2020).

According to Yapici and Hevedanli (2022), digital learning has emerged as the most rapidly developed mode of learning in recent years and is expected to become the dominant method in the future. This rapid growth can be attributed to its departure from traditional teaching approaches, allowing it to harness various strengths. As noted by Al-Munawwarah, (2014) teachers need to understand how digital technology can support and enhance different teaching and learning approaches. They must be able to select appropriate digital tools and resources, integrate them effectively into the curriculum, and provide guidance and support to students. Teachers' attitudes and beliefs about digital technology can impact their willingness to use it in the classroom. A positive attitude towards digital technology can lead to increased motivation to learn and use it, while a negative attitude can create barriers to effective implementation. Overall, the analysis of teacher readiness in using digital technology for student learning is a complex process that requires careful consideration of multiple factors. By evaluating and addressing these factors, educators can create a more supportive and effective digital learning environment for students (Kristianto, 2017).

Kim et al. (2022) suggested that when we talk about "digital literacy," we're talking about two different things: academics and technology. The term "literacy" is more specific and thorough than "education" when it comes to schooling. Mirzajani and Bayekolaei (2019) highlighted that the current learning patterns reveal an uneven adoption of digital technology among teachers in the classroom. Several studies have identified obstacles to integrating digital technology into education, such as teachers' insufficient acquired expertise, abilities, education, and self-assurance and limited access to necessary facilities. The low utilization of digital technology in teaching is influenced by factors such as teachers' computer self-efficacy, the level of computer and information technology support available to them, their expertise in teaching, pedagogical abilities, and how they enhance their professional skills to integrate digital technology into education (Gilakjani, 2020).Furthermore, research indicates that despite the potential benefits, teachers' utilization of digital technology remains suboptimal, and their lack of self-confidence in using such tools suggests a deficiency in their technological experience (Taimur-ul-Hassan, 2013).

As noted by Hoque et al. (2022), the achievement in incorporating digital technology into elementary level is heavily reliant on the teacher's role. Effectively applying digital technology in the classroom can lead to numerous benefits. However, in many countries, teachers face significant challenges when it comes to adopting digital technology. In Malaysia, a study revealed that all elementary school teachers receive basic training on computer and internet usage through courses and workshops. Additionally, schools in Malaysia encourage digital technology utilization among students based on their professional level, resulting in a recent report stating that Malaysian teachers generally possess the willingness to incorporate digital technology. The use of technology in education has the potential to enhance the quality of learning, indicating an advanced technology skills and proficiency among teachers in Malaysian schools (Singh & Hussein, 2017).

Razak et al. (2022) emphasized the vast array of activities that can be accomplished in the digital realm. These activities encompass watching, reading, listening, sharing, discussing, arranging, editing, and publishing, all of which can now be conveniently performed using a single device. The potential of these interactions goes beyond mere convenience; they offer opportunities for expanding knowledge, enhancing understanding, honing skills, boosting capabilities, and building confidence.

The integration of technology in the classroom has been shown to yield numerous benefits and positively influence the learning experience. Researches indicated that incorporating technology leads to meaningful learning, as students engage in interactive and immersive activities that promote active participation and deeper understanding of concepts. Technology facilitates the better utilization of prior knowledge, as students can access and review previously learned material through digital platforms, reinforcing their understanding and building upon existing knowledge.

Statement of the Problem

As the world becomes increasingly interconnected and digitized, there emerged a dire need to equip students with the necessary digital skills and competencies. It has compelled teachers to swiftly adapt their teaching methods and embrace digital tools to enhance and ensure students' deep and effective learning. Despite the growing demand of using digital technology in schools, teachers are not fully equipped to utilize these tools to enhance students' learning. Effective integration of technology into classrooms is hindered due to various factors such as limited training and resources, teachers lacking digital literacy and limited access to digital devices and internet connectivity for both teachers and students. Moreover, teachers' attitudes and beliefs about digital technology can impact their willingness to use it in the classroom. A positive attitude towards digital technology can lead to increased motivation to learn and use it, while a negative attitude can create barriers to effective implementation. This study aims to examine teacher readiness in using digital technology for student learning, the challenges that teachers encounter while utilizing digital technology for students' learning. Additionally, the study seeks to identify viable solutions that can enhance teacher readiness in this domain.

Objectives of Study

1. To assess teacher readiness in using digital technology for student learning.
2. To identify the challenges faced by teachers in using digital technology for student learning.
3. To explore the potential solutions that can enhance teacher readiness in using digital technology for student learning.

Literature Review

Yapici and Hevedanli (2022) stated that teachers' readiness in using digital technology for learning can be categorized into two primary aspects: pedagogical readiness and technical readiness. Pedagogical readiness encompasses the knowledge, skills, attitudes, and habits that teachers possess in effectively integrating technology into the learning process. This aspect emphasizes the appropriate utilization of technology to enhance learning outcomes. On the other hand, technical readiness revolves around the proficiency of teachers in conducting digital learning. It includes their competence in using digital tools, the accessibility of hardware and software for educators and students, along with the professional development initiatives implemented by schools and the Ministry of Education to equip teachers for digital education (Brosnan et al., 2023). According to the research conducted by Fatimah (2021) there is a dramatic shift in how we think about learning and teaching as a result of the digital revolution. Traditional learning and teaching, student engagement, and new skill acquisition have all been aided by bringing the digital realm into the classroom. In the pursuit of transforming conventional education and instruction methods, various Interactive Learning Technologies (ILTs) have been employed. These include interactive whiteboards, virtual learning environments, and a diverse array of digital technologies. The advent of the digital age has prompted some to envision a classroom that transcends physical boundaries, raising questions about the core principles of conventional education. As technology continues to advance, digital media and content are assuming a pivotal role in the learning process. This is evident from the emergence of MOOCs, which utilize digital platforms to disseminate knowledge widely. Additionally, there is a growing emphasis on delving deeper into discussions about learning and teaching methodologies, along with the integration of effective pedagogy and practical implementation (Al-Munawwarah, 2020).

Amuko and Miheso (2020) highlighted the extensive discourse surrounding instructional approaches and pedagogical techniques, the incorporation of effective pedagogy, and the teacher's role and practices. Recent years have seen a movement in the educational discourse surrounding digital technology to pay greater attention to unique individual or group needs and the level of fluency required to accomplish various digital tasks. "In this manner, educators gain the ability to precisely identify the specific information, skills, and talents essential for students to become active, critical thinkers, and creatively adapt to the demands of the digital age. This gave rise to the term 'digitally literate.' Asoodar et al. (2020) proposed that schools should adapt their curricula to keep pace with the rapidly evolving technology, ensuring they meet the demands of the present and future workforce. Embracing modern technology in the classroom not only facilitates education and learning but also fosters communication, equipping students with essential 21st-century skills such as digital literacy, online/computer readiness, and competency.

Factors for Teacher's Readiness

Kristianto (2017) highlighted the importance of analyzing a teacher's readiness in using digital technology for students involves considering various factors. By analyzing these factors, they can gain insights into a teacher's readiness and ability to effectively integrate digital technology into their teaching practices for the benefit of their students. Here are some key factors to consider:

Technical Skills

Assess the teacher's proficiency in using digital tools, software, and hardware necessary for digital instruction. This includes their ability to navigate learning management systems, utilize educational software, troubleshoot technical issues, and effectively use digital devices such as computers, tablets, or interactive whiteboards (Al-Munawwarah, 2014).

Digital Literacy

Evaluate the teacher's understanding of digital literacy concepts, such as online safety, responsible internet use, information literacy, and digital citizenship. A digitally literate teacher can guide students in navigating online resources, critically evaluating information, and engaging in ethical digital practices (Costley, 2014).

Pedagogical Knowledge

Examine the teacher's knowledge of incorporating digital technology into their teaching methods. This involves understanding how to adapt teaching strategies and instructional materials to leverage digital tools effectively. Look for evidence of the teacher's ability to design engaging and interactive digital learning experiences for students (Asoodar et al., 2016).

Curriculum Alignment

Determine if the teacher can integrate digital technology seamlessly into the curriculum. Assess their ability to align digital resources and tools with learning objectives and standards. An effective teacher should have the capability to choose the right digital resources and activities that enhance student learning and reinforce curriculum goals (Alwan, 2017).

Adaptability

Evaluate the teacher's flexibility and willingness to adapt to new technologies and pedagogical approaches. Teachers who are open to innovation and continuous learning are more likely to explore and incorporate new digital tools effectively. Look for evidence of their professional development initiatives or participation in digital learning communities (Beetham & Sharpe, 2018).

Infrastructure Awareness

Consider the teacher's understanding of the technological infrastructure and resources available in their educational setting. This includes familiarity with network capabilities, software and hardware limitations,

and access to digital devices for students. An awareness of these factors allows the teacher to make informed decisions about technology integration (Dopo & Ismaniati, 2016).

Student Engagement

Assess the teacher's ability utilizing digital technology to actively involve students in the learning experience. Look for evidence of interactive activities, multimedia presentations, online discussions, collaborative projects, and formative assessments that utilize digital tools effectively. A teacher who can leverage technology to create dynamic and interactive learning experiences can enhance student engagement (Al-Awidi & Aldhafeeri, 2017).

Time Management

Consider the teacher's ability to effectively manage time when integrating digital technology. Technology integration requires planning, preparation, and troubleshooting, which can impact instructional time. Look for evidence of strategies used by the teacher to minimize disruptions and maximize learning opportunities while using digital tools (Qasem & Viswanathappa, 2016).

Support and Resources

Evaluate the availability of support and resources provided to the teacher for integrating digital technology. Adequate technical support, professional development opportunities, access to digital resources, and collaboration with other educators can significantly impact a teacher's readiness and success in using digital technology effectively (Hadriana, 2017).

Reflection and Assessment

Consider the teacher's ability to reflect on their digital teaching practices and assess their effectiveness. An effective teacher should continuously evaluate the influence of digital technology on student learning and make adjustments accordingly. Look for evidence of data-driven decision-making, student feedback, and reflective practices.

Traditional Teaching vs. Digital Learning

Pettersson (2018) highlighted several distinctions between traditional teaching and digital learning concerning teaching material contents, learning channels, and practice methods. Specifically, digital learning was found to excel in delivering convenient and flexible learning content, whereas traditional teaching proved more effective for courses involving practical operations or teamwork. It became evident that while digital learning couldn't entirely replace traditional teaching, it could enhance the overall teaching experience and foster learner satisfaction by complementing traditional methods with digital tools. Integrating both approaches comprehensively in teaching activities proved to yield the best results. Sang et al. (2021) emphasized the dissimilarities in learning environments and participants between digital learning and traditional teaching. The latter, represented by the classic "lecture" format in classrooms, remained one of the most widely used and favored teaching methods among instructors due to its long-standing history. This approach involved instructors presenting teaching materials to learners through verbal explanation during the teaching activity. Despite the rise of digital learning, traditional teaching continued to hold its ground as a prominent and essential instructional method.

Learning Problem: According to Jude et al. (2014), digital learning offers learners the freedom to transcend the limitations of time and space often associated with traditional learning. This means learners can now choose when and where they engage in digital learning, benefiting from the instructors' online interaction mechanisms without being constrained by time or location. As a result, they experience reduced pressure and obstacles related to the constraints of traditional classroom settings.

Rich Network Resources: Incorporating a vast array of rich and diverse information, the Internet offers learners the convenience of acquiring data through simple keyword searches. By employing a digital learning platform capable of effectively organizing pertinent resources for learners' utilization and

connectivity, the network's vast reservoir of knowledge can be harnessed to enhance the digital learning experience. Consequently, both instructors and learners can access a wealth of information beyond the confines of traditional curriculum materials, thereby enriching the overall learning outcomes (Im et al., 2011).

Digital Learning Contents and Tailored Learning Schedule: In traditional teaching, all learners were treated equally with the same teaching schedule and contents, regardless of their individual levels. However, in digital learning, the curriculum design and production of teaching materials allowed learners the freedom to choose different courses and materials based on their level and preferences. This approach aimed to achieve personalized learning outcomes, as described by Sun et al. (2018).

Complete Records of Learners' Learning History: A well-designed digital learning platform must have the capability to comprehensively track learners' learning history. This feature enables instructors to gain valuable insights into learners' progress and conditions, facilitating better understanding and personalized support. Additionally, learners themselves can easily assess their learning outcomes and make necessary adjustments for continuous improvement.

Interactive Learning: Self-learning in the digital era emphasizes the incorporation of diverse media, such as pictures, sound, and images, into teaching materials, making them more engaging and dynamic compared to traditional resources. Furthermore, digital teaching platforms offer interactive features, such as chat rooms and discussions, fostering enhanced two-way communication not only between learners and instructors but also among learners themselves (Hockly, 2016).

Reduction of Teaching Costs: The digital teaching platform utilized teaching materials stored as digital files, enabling the reuse of completed materials. Instructors created these teaching materials prior to the lessons, allowing learners to access and review them multiple times. This approach facilitated repetitive learning, unlike traditional teaching methods that necessitated all learners to gather at the same time and place, leading to increased teaching costs.

Effective Accumulation of Knowledge: Incorporating the digital learning mode enables comprehensive and systematic recording of all online teaching materials and learners' learning history. This approach efficiently accumulates personal knowledge for learners, providing a step-by-step learning process. Additionally, instructors benefit from the digital learning platform as it effectively organizes and accumulates teaching material contents. Consequently, these materials can be rapidly delivered to learners, ensuring effective knowledge management implementation (Jude et al., 2014)

Enhancement of Learning Interests: Kaklamanou et al. (2012) proposed that incorporating information technology and diverse media in instruction can significantly enrich the learning experience. By doing so, learners' interests can be heightened, learning efficiency can be improved, and their commitment to the learning process can be further promoted

Simultaneous New Technology Learning: According to Shin et al. (2011), digital learning emphasizes the acquisition of specific knowledge and new computer and network technologies, utilizing digital tools to enhance individuals' proficiency in information technology.

Teacher's Digital Education in Pakistan

In the report "Digital Education at School in Asia," Pakistan is categorized along with certain countries that integrate teacher digital competence within broader teacher competence frameworks, rather than having a distinct digital competence framework. Additionally, Pakistan is grouped with countries where top-level authorities responsible for initial teacher education do not regulate teacher-specific digital competences. This enables universities providing teacher training programs at the undergraduate level to have autonomy in determining whether to include digital competence in their curriculum. However, several national-level projects aimed at developing teacher digital competence have been implemented and overseen by the Pakistani Ministry of Education, Science, and Sports (Shafie et al., 2019).

Hussin (2018) opined that recently, there has been a strategic pivot towards empowering educators to utilize digital technology in their teaching methods effectively. This transformation highlights the growing importance of embracing pedagogical approaches that fully leverage the potential of technology in educational settings. Notably, the Ministry of Education, Science, and Sports in Pakistan has introduced new measures to encourage the growth of teachers' digital competences. These measures revolve around the proposal of six key digital competences that teachers should aim to enhance; a) Proficiency in remote communication and collaboration with various stakeholders such as fellow educators, parents, and students; b) The capacity to proficiently search, gather, analyze, and judiciously assess data and information; c) Ensuring the responsible utilization of digital technologies and adhering to legal and ethical principles when accessing, using, and disseminating information; d) The process involves producing, updating, and publishing materials; e) Utilizing digital technology for lesson planning, implementation, and evaluation.

As stated by Karim (2023), the Ministry initiated the "Developing Innovative Methods of Teaching and Learning Programs" project in 2017, recognizing the imperative for teachers to enhance their digital competence. The primary objective of this project was to equip prospective teachers (student teachers) with fundamental knowledge in effectively using digital technology for educational purposes. The initial phase of the project involved evaluating the student teachers' disposition towards integrating digital technologies in education, as well as their self-assessed proficiency in using these technologies. The present paper presents a portion of this analysis.

Shafie et al. (2019) suggested that the swift advancements in internet and wireless communication technologies in recent years have given rise to diverse interactive multimedia networks, such as mobile learning, mobile voice, and instant messaging. This has paved the way for leveraging the convenience and popularity of the internet to incorporate digital teaching materials and enhance national competitiveness, potentially replacing traditional teaching methods. As a result, extensive research on mobile learning has been conducted to enhance transmission performance and promote widespread usage. The advancement of handy and portable devices, such as PDAs and smart phones, has reached a level of maturity where almost everyone possesses such a device. Unlike the traditional way of browsing the Internet, users can now connect to a server through the network and access suitable digital teaching materials for their learning needs.

Challenges in Implementing Digital Technology Education in Pakistan

Gazi and Aksal (2017) suggested that one of the primary challenges in implementing digital technology education in Pakistan is limited access to technology and infrastructure. Many schools in rural areas need access to reliable internet connectivity or basic technology such as computers and tablets. This limited access to technology and infrastructure makes it difficult for students and teachers to engage effectively with digital technology learning initiatives. Another significant challenge is the limited digital literacy among teachers and students. Many teachers in Pakistan have little experience with digital technologies, making it challenging to teach effectively in a digital environment. Similarly, many students may need digital skills to engage effectively with digital learning platforms. Resistance to change from traditionalist groups and teachers is another challenge in implementing digital education in Pakistan. As a result, their productivity, efficiency, and capacity for learning are significantly increased (Hassan & Sajid 2013).

The integration of information technology into subjects by teachers has become essential in facilitating students' learning. By employing various teaching materials, methods, and diverse teaching media, educators share a common responsibility to make teaching more efficient and enjoyable for students, fostering creativity, rational communication, and critical thinking using modern technologies and network information in this new era. The primary goal of digital teaching is to actively engage students in learning activities to achieve specific learning objectives. Therefore, designing effective teaching activities and employing technology tools or digital learning in a flexible manner have become crucial challenges in the realm of current information technology integrated education (Karim, 2022).

According to Hussin (2018), there has been a strategic pivot towards empowering educators to utilize digital technology in their teaching methods effectively. This transformation highlights the growing importance of embracing pedagogical approaches that fully leverage the potential of technology in educational settings. Notably, Pakistani teachers have often engaged in short-term in-service programs, typically lasting for one or two days, to enhance their competence in utilizing digital technology for teaching purposes. However, it has been identified that these programs fail to adequately address the needs of the teachers.

Breaking Digital Technology Barriers

Hassan and Sajid (2013) conducted a study on various digital technology education initiatives implemented by the government of Pakistan. Among these initiatives is E-Learn Punjab, an ambitious project launched by the Punjab government with the aim of transforming the education sector within the province. This platform is dedicated to offering free online courses and learning materials for students ranging from grades 1 to 12. By harnessing the power of digital technologies, E-Learn Punjab provides interactive and engaging content, specifically designed to enhance the overall learning outcomes. The platform incorporates video lectures, quizzes, and assessments, making it an excellent tool for facilitating distance learning, enabling students to access quality education remotely. Furthermore, the Sindh Education Department has also taken noteworthy steps to encourage digital technology learning within the province, as reported by Aslan and Zhu (2019).

As stated by Fatimah (2021) one of the most notable initiatives is establishing the Sindh Virtual Learning Program (SVLP), which offers online courses for students in grades 1 to 12. The SVLP provides high-quality content aligned with the national curriculum and is available in English and Urdu. The platform also offers interactive activities, assessments, and teacher support to enhance the learning experience. The Higher Education Commission (HEC) promotes higher education in Pakistan. In recent years, the HEC has taken several initiatives to promote digital technology education in the country. One of the most notable initiatives is the establishment of the National Digital Library of Pakistan (NDLP), which offers free access to e-books, journals, and research papers to students, researchers, and scholars across the country. The HEC has also launched several online degree programs and e-learning initiatives to promote distance learning in the country (Hussin, 2018).

Over the past few decades, there has been a significant increase in access to technologies and electronic resources. These advancements have seamlessly integrated technology into our daily lives, particularly in the field of education. As stated by Warren et al. (2008), educators must respond to these new realities by adapting their teaching designs and methodologies to align with the students' abilities, interests, and learning styles. This adjustment is crucial in ensuring that education remains effective and engaging in this technologically-driven era.

As stated by Garcia and Calantone (2002), there exists a connection between students' use of digital learning resources during lessons and their teachers' confidence in digital competences. This indicates that students' attitudes towards digital resources in education are influenced by their teachers' stance on digital technology. Additionally, the motivation of students to engage with digital learning resources might be linked to the availability and accessibility of these innovative tools within the school environment. Perrotta (2013) found that students have greater exposure to digital learning resources when taught by teachers who possess appropriate digital skills and responsibly use the internet and social media. Furthermore, the European Union (EU) stressed the significance of having high access to digital technology infrastructure in schools. A recent survey revealed that about 20-25% of Asian students are taught by digitally competent teachers who have ample access to digital technology. Professional development opportunities for teachers have been proven to be an effective method of increasing digital technology use in teaching and learning. This approach helps to cultivate highly confident and supportive teachers in utilizing digital resources effectively. In light of the Asian survey, it was observed that teachers' views regarding the impact of using digital technology for learning purposes were overwhelmingly positive and encouraging. In fact,

approximately 80% of students attend schools where school leaders share similar beliefs about the benefits of digital technology in education (Bettaz, 2019).

Hence, Asian countries may benefit from incorporating digital technology training as a compulsory element in all initial teacher education programs. Despite educators' high access to technology and positive attitudes towards it in schools and colleges, successful integration of technology in education is not guaranteed. The effective utilization of digital learning resources necessitates continuous support, encompassing both technical and pedagogical aspects. Carrio-Pastor & Skorczynska (2015) emphasized the importance of ongoing training and professional development for teachers across various disciplines, including subject-specific training on learning applications. To harness the full potential of digital technology infrastructure, confident and supportive teachers are essential. Skillful teachers can adeptly navigate poor digital technology learning environments. This paper examines educators' attitudes toward technology in education and delves into the factors driving their use of digital learning technologies (Gazi & Aksal, 2017).

Research Methodology

This study employed a descriptive quantitative research design. The population comprised of secondary school teachers of district Khanewal. The sample size was 303 teachers (182 male and 121 female), selected through a simple random sampling technique. A 45-item self-structured questionnaire was used. The developed questionnaire was validated by a panel of experts in ISP Multan and BZU Multan. To ensure the reliability of the tool pilot test was conducted. To measure the internal consistency of the questionnaire, Cronbach's alpha coefficient was calculated. The reliability coefficient was determined for each individual item. Cronbach Alpha value was 0.83. The researcher used both the descriptive statistics and inferential statistical techniques to analyze the collected data by using SPSS.

Findings

Analysis of Difference between Teacher's Opinions Regarding the Readiness in Using Digital Technology for Student's learning

An analysis of the data was conducted to examine variations in students' opinions across different factors, including gender, teaching area/subject, teaching experience, age group, and academic qualification. To carry out the analysis, both one-way ANOVA and independent sample t-tests were employed. These statistical methods allowed us to explore potential differences in the opinions of students based on the mentioned variables.

Table 1: *Difference between Male and Female Secondary School Teacher's Opinions*

Variables	Category	N	Mean	SD	df	*t*	Sig.
Gender	Male	182	140.7005	16.68945	759	.770	.442
	Female	121	139.6919	19.45711			

*Significance Level **P ≤ .05*

In Table 1, a comparison is presented between the opinions of male and female Secondary School Teachers. The mean score of male teachers (140.70) is marginally higher than that of female teachers (139.69). However, upon analyzing the significance value (0.44) and comparing it with the tabulated significance level of 0.05, it becomes evident that there is no statistically significant difference between the opinions of teachers based on gender.

Table 2: *Difference between Secondary School Teacher's Opinions by Teaching Area/Subject*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1068.111	4	267.02	1.048	.03
Within Groups	269071.761	1056	254.80		
Total	270139.872	1060			

According to Table 2, a statistically significant difference exists between the opinions of secondary school teachers based on their teaching area/subject. The calculated significance value of (.03), which is less than the tabulated significance level of 0.05, confirms this finding. Additionally, the supporting evidence for this claim is the F value of 1.048.

Table 3: *Difference between Secondary School Teacher's Opinions by Teaching Experience*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2052.628	4	513.15	2.02	.08
Within Groups	268087.244	1056	253.87		
Total	270139.872	1060			

In Table 3, a comparison of primary school teachers' opinions based on their teaching experience reveals that the calculated significance value (0.08) is higher than the tabulated significance level of 0.05. Consequently, this indicates that there is no statistically significant difference between primary school teachers' opinions as affected by their teaching experience. The support for this claim is further corroborated by the F value (2.02).

Table 4: *Difference between Secondary School Teacher's Opinions by Age Group*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2846.625	3	948.87	1.32	.01
Within Groups	267293.247	1057	252.87		
Total	270139.872	1060			

Table 4 presents a comparison of primary school teachers' opinions based on different age groups. The significance value calculated (0.01) is lower than the tabulated significance level (0.05), indicating a statistically significant difference in opinions among secondary school teachers of different age groups. This claim is further supported by the F value (1.32).

Table 5: *Difference between Secondary School Teacher's Opinions by Academic Qualification*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1003.062	5	200.61	.78	.04
Within Groups	269136.810	1055	255.10		
Total	270139.872	1060			

In Table 5, a comparison of primary school teachers' opinions based on their academic qualifications is presented. The calculated significance value of 0.04 is found to be lower than the tabulated significance level of 0.05. This indicates a statistically significant difference between the opinions of secondary school teachers based on their academic qualification. The claim is further supported by the F value of 0.786.

Discussion

The main aim of this study was to analyze teachers' readiness in using digital technology for student's learning with focus on problems and potential solutions in the way of using it. First, it was found that teachers believed with a high level of consensus that digital technology for student's learning can improve student's outcome. The results agree with the research study Karim (2023) and Razak et al. (2022) who claim that the primary goal of digital teaching is to actively engage students in learning activities to achieve specific learning objectives. Therefore, designing effective teaching activities and employing technology tools or digital learning in a flexible manner have become crucial challenges in the realm of current information technology integrated education. Secondly, it was found that participants believed with a high level of consensus that teacher's readiness in using digital technology for student's learning faces many hurdles. The results are in accordance to the findings of the studies of Yapici and Hevedanli (2022) and Warren et al. (2008). Third, it was concluded that for using digital technology for student's learning teachers are lack of resources in their institutes. It was also found in participants' perception of their readiness in using digital technology for student's learning that to utilize resources teachers' lack of proper trainings and workshops.

The results are in alignment to Gazi and Aksal (2017), Hussin (2018) and (Karim, 2023). Finally, it was also found that digital literacy and technology-related skills should be integrated into teacher education programs. Flexible curriculum design and provision of ongoing professional development workshops and training sessions should be focused for effective digital technology integration in schools. These results are in alignment with the studies of Carrio-Pastor et al. (2022) and Razak et al. (2022).

Conclusion

Unlike other professions, digital competence in the teaching profession is multi-dimensional, encompassing two levels. Firstly, teachers need to demonstrate proficiency in using technology seamlessly, setting an example for students to follow. Secondly, their digital competence must be pedagogical in nature, involving continuous pedagogic didactic judgments on how digital technologies can enhance learning possibilities for students in various subjects. Teachers' readiness in using digital technology for students' learning plays a pivotal role. By integrating digital technology into curricula, teaching materials, methods, and diverse teaching media, teachers can make teaching more efficient and enjoyable for students, fostering creativity, rational communication, critical thinking and problem-solving skills.

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Conflict of Interest

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