Consolidation of digital skills of teachers in online learning in Pakistan

Masooma Kazam
Lecturer in Education, University of Education Lahore, (Faisalabad Campus)
Dr. Asma Islam*
Assistant Professor of Sociology, Riphah International University, Faisalabad, Pakistan.
Ammara Asghar
Lecturer of Sociology, Department of Sociology, GCUF.
Uzma Ashraf
M.Phil. scholar, Riphah International University, Faisalabad, Pakistan.
Uzma Baigum
M.Phil. research scholar, Riphah International University, Faisalabad, Pakistan.
Dr. Shahzad Channa
Assistant professor of Dawah Academy, International Islamic University, Islamabad
Corresponding author:drasmaislam@gmail.com

Abstract

This research aims to determine secondary school teachers' perspectives about "digital skills accumulation in online learning." A descriptive quantitative study. The study aims to (1) analyze secondary school teachers' knowledge, attitude, and abilities of digital technologies, (2) find teachers' practises for increasing their digital skills, and (3) explore impediments to strengthening teachers' digital skills. The population was all Toba Tek Singh government secondary school teachers. Random sampling was used to acquire data from 300 teachers. The researcher created a Likert-scale questionnaire with 30 positive statements. Experts' comments and pilot research ensured validity and dependability. The researcher obtained data from secondary school instructors after ensuring validity and dependability. Later, the same data was loaded into SPSS to calculate the mean, standard deviation, frequency, and percentage. This survey found that most secondary school instructors favored the learning of digital skills but had only moderate computer, internet, and digital skills knowledge. Online platforms, tools, YouTube, workshops, seminars, colleagues, students, and online communities help instructors improve their digital skills. Most teachers acknowledged digital inadequacies. Time, digital gadgets, internet connectivity, digital skills, and interest were issues. Educators commonly use digital gadgets in teaching and learning. Teachers' practices and digital skills are correlated (r=.757).

Keywords: Culture, Females, imprisonment, social behavior, Crimes, Religion, Case Study, Rational Choice Theory (RCT), Thematic Analysis.

Introduction

To stay up with the rapid development of information and communication technology as well as the rapid digitization of education, everyone who is a part of the education process needs to have the appropriate digital skills. Having knowledge of areas related to digital technology is now one of the most crucial requirements for success in the education sector. We can't stress this enough as a necessary prerequisite for achievement. Investing in the kids of today via education and training is crucial because it will help them prepare future generations for the issues they will face. Preparing the next generation for the difficulties they will face is crucial. Therefore, it is crucial for teachers to stay up with the times by learning about developing technologies, incorporating such technologies into their classrooms, and obtaining new technologies themselves in order for the educational system to attain its aims and ambitions. Educators must have a contemporary mindset if the educational system is to realise its aspirations. By doing so, the educational system will be able to realise its aims and potential (Serezkhina, 2021). "Digital competency" refers to a teacher's skill with and comfort with digital tools in the classroom, and it's used to evaluate instructors' preparedness to integrate technology into their lesson plans. In the year 2000, the term "digital competency" was first used.

As a result of technological progress, educators confront two layers of challenges: first, acquiring the knowledge and abilities to use new technologies effectively in the classroom, and second, creating lesson plans that equip all students with the digital literacy necessary to thrive in today's society. Teachers, for instance, need to foster not only traditional literacy skills but also those applicable in digital settings. Regarding teachers' digital competence, it's important to keep in mind the widespread belief that educators face unique challenges, such as lower problem-solving abilities in technologically complex settings compared to individuals in other professions (Hamalainen, De-Wever, Nissinen, & Cincinnati, 2019). The phrases "skill" and "competency" are often used interchangeably when referring to an individual's level of expertise with regard to digital tools. Developing skills entails arranging a systematic sequence of actions, including the coordination of physical actions and the interpretation of symbols (Baartman & de Bruijn, 2011). Online courses are available to help you acquire these abilities.

A framework for categorizing online education program was developed by Allen and Seaman (2014). Courses that are taught entirely offline but have some online components, such as posting course materials and assignments to a learning management system, are known as web-facilitated

courses. When less than 80 percent of the course material and activities are provided online, we call it a hybrid or blended course. Courses that are offered online are delivered only via the use of the internet.

At this juncture, it may be necessary to reevaluate how we present information to students in classroom settings. Learning that takes place online or in a setting that combines online and offline components has the potential to replace traditional classroom training (Palloff & Pratt, 2016). The concept of online education has been around for a while, and from its inception, many aspects of it have been characterized using jargon. This is still the situation. Learning that takes place via the Internet goes by many different names: e-learning, virtual learning, cyber learning, Internet learning, distributed learning, web-aided learning, web-based learning, remote learning, computer-based learning, resource-based learning, and technology-based learning (Moore & Kearsley, 2015; Rudestam & Schoenholtz-Read, 2015). The phrase "online education" will be used several times during the course of this text. Given the diversity of ideas that inform online education, there is a plethora of terms with which to characterize it. Newcomers to online learning may become overwhelmed by this.

Many authors, researchers, theorists, and educators with diverse experiences and points of view have each presented their own explanation of what online learning is and how it works. Instruction that is offered wholly (referred to as "pure online learning") or in part (referred to as "blended learning") through the Internet is what is meant by the phrase "online learning." According to Bakia, Shear, Toyama, and Lasseter's definition, online education is "instructional situations provided by the Internet." The term "online learning" refers to any type of education that can be completed from the comfort of one's own home and which encourages the student's development, the acquisition of new information, and the creation of an individual interpretation. Online learning can take place in a variety of settings, including virtual classrooms, virtual lecture halls, and online discussion forums. In addition, novel types of online education including mobile learning and massive open online courses (MOOCs) have emerged. Online learning is defined as "learning that occurs in learning contexts and spaces that take into consideration the mobility of technology, the mobility of learners, and the mobility of learning" (El- Hussein & Cronje, 2014). Massive Open Online Courses (MOOCs) combine the advantages of both traditional distance education and freely available course materials (Bali, 2014). Open and free online courses (MOOCs) are offered for no academic credit. Numerous academic institutes provide those (Allen & Seaman, 2014).

The digital abilities of both instructors and students can improve greatly from online learning. For students, the benefits of online education include greater flexibility in terms of when, where, and with whom they study; increased opportunities for both real-time and asynchronous communication and interaction; enhanced opportunities for group work and peer feedback; a wider variety of resource formats; and an emphasis on real-world application and contextualised knowledge (Davies, 2014; Fuller & Yu, 2014).

According to Bell and Federman (2018), distance education has the potential to provide affordable and accessible education to people who are unable to participate in traditional classroom settings owing to financial, intellectual, or health constraints. Keengwe, Schnellert, and Kungu (2014) highlight an additional benefit of online education, namely the opportunity for students to interact with and learn from people from a variety of cultural backgrounds. They also mention that the anonymity of online courses is an advantage. While there are certainly negative aspects to maintaining one's anonymity online, there is no denying the benefits it can bring to students when they are engaged in learning.

Positive research suggests that students and their parents are more likely to comply with teachers' requests when they are facilitated through the use of digital equipment and methods for direct communication with parents. The data suggests that students are becoming more amenable to teachers' requests for academic assistance. Access to sufficient gear, tools, and resources is only half the battle; teachers also need access to sufficient training, knowledge, and support networks for digital technology to be truly effective in the classroom. If teachers receive this kind of guidance, they will be better able to see the value of digital technologies and implement them effectively in the classroom. Teachers who work from home might also benefit from online education. They may gain the freedom to teach whenever and wherever they like, the speed with which they can recycle and update teaching materials, the breadth of their ability to communicate with and guide each student separately, and the depth with which they can assess each student's individual educational requirements and tailor lessons accordingly (Ally, 2018).

According to Alman and Tomer (2019), online teachers can benefit from teaching online by expanding their knowledge of instructional design, technology, online pedagogy, and emerging technologies. Therefore, instructors can expand their circles of colleagues, learn from one other's successes and failures, and build stronger teaching and resumes through online teaching. Along with the growing body of evidence in favour of online Learning comes a corresponding rise in

worries about the pitfalls that can occur in virtual classrooms. To start, virtual classrooms can't fully replace in-person instruction. Teachers should also keep in mind that there is no universally applicable model for online education (Palloff & Pratt, 2016). Because of the potential for damage to a student's academic reputation, dishonesty and plagiarism rank high on the list of worries related to online education (Fuller & Yu, 2014). (Bell & Federman, 2013). In order to address and manage any challenges or concerns that may develop with online learning, teachers and administrators need training in the pedagogical, administrative, technological, and technical aspects of the medium (Palloff & Pratt, 2016).

Teachers in the modern day need a wide range of digital skills both to do their jobs in the classroom and to take use of online opportunities to acquire or hone those skills. Achieving these digital competencies requires knowing how to effectively utilise computers, the internet, and other digital technologies to collect data, conduct analyses, share findings, and carry out a variety of useful tasks. Teachers today also need the capacity to use computers (keyboarding skills), understand the digital world (file, folder, and hyperlink), and access and modify digital material (saving, editing, submitting, and sending) (Redecker, 2017). According to Nelson et al. (2019), teachers' attitudes are considered as internal hurdles to technology integration in the context of teacher digital competency.

Attitude, as defined by Aslan and Zhu (2017), is "the disposition to react favorably or unfavorably toward a certain person, event, or object." What this means is that a teacher's outlook on his or her own self-efficacy as an educator and on the use of technology in the classroom can be either positive or negative. Therefore, the overall evaluation of the instructors' beliefs will impact the teachers' attitude toward integrating technology in the classroom. This suggests that there are potentially two mindsets that might be anticipated in relation to digital technologies. Teachers' views on the use and application of technology in the classroom have been found to be a predictor in previous studies (Krause, 2017).

Knowledge building for professional development is only one example of how technology-enhanced learning has evolved through time to better capture and make sense of knowledge within the context of teaching and learning (Chai & Tan, 2020). What we mean by "knowledge" is the ability to recognise a problem and find a solution. The distinction between "knowing" and "knowing how" is that "knowing" refers to the definition of knowledge, Concept, and fact, while "knowing how" refers to the capability of doing a certain job (Baartman & de Bruijn, 2015).

Knowledge is linked to skills and attitudes, according to the study's authors, who reasoned that any piece of information can be reported on but may not be something the subject wants to or is capable of doing in practise. That's why understanding the what, why, and how of digital tools is crucial in the realm of digital technology. Therefore, it can be argued that the incorporation of digital technologies into the teaching-learning process is contingent on teachers possessing the appropriate digital competencies and awareness of the benefits and applications of these technologies (Spiteri & Rundgren, 2020).

As a result, educators' familiarity with digital tools can be broken down into three distinct areas: classroom experience, work experience, and continuing education. Teachers can improve their classroom practices by participating in a professional development program where they can learn new techniques. Teachers are the primary beneficiaries of professional development program since they are the ones who benefit from expanding their knowledge and skill sets in order to better aid their students in reaching their full potential (OECD, 2014). In order to fully realise the potential of technology-enhanced pedagogical approaches, instructors need to be proficient in their technical use of information and communication technologies, an area that has received relatively little attention in the aforementioned literature. But recently there has been a shift to a broader perspective, as skills like critical thinking, problem solving, and digital learning have been shown to have a greater bearing on one's ability to function in today's technologically advanced society than does familiarity with a particular piece of software. That is to say, in today's technologically evolved culture, being fluent in a certain piece of software is not the only criterion for functional competence. Because of this, it's instructive to consider teachers' digital abilities more generally in order to fathom the extent to which they might affect positive change in the classroom through technological means (Scherer et al., 2018; van Laar et al., 2017).

Teachers' Attitude towards Learning Digital Literacy

How teachers feel about digital literacy is a crucial element in whether educational institutions adopt it (Tezci, 2019). To ensure effective use of technology in education, educators' opinions must be carefully considered. It's difficult to implement technology in education without first examining educators' attitudes toward digital literacy. For successful instruction, instructors' attitudes toward digital literacy and deployment of digital tools must be aligned. COVID-19 has accelerated educational virtualization. Every level of education seems to have online virtual learning methods. Teaching may be a driver for virtualization in the classroom due to its numerous

linked features. Due to their professional function, teachers can help students overcome challenges. When a person enjoys their job or experience, they have "career satisfaction." Educators must enjoy their work or career path (Zamora-Antunano et al., 2021).

Teachers' "digital literacy" refers to their familiarity with and comfort with integrating technology and the Internet into the classroom. Teachers who have even a foundational understanding of digital literacy will have an advantage in today's competitive educational environment. With the current COVID-19 pandemic, the teacher's role as a knowledge transmitter is especially important in online classrooms (Zamora-Antunano et al., 2021). Educators in the modern system need digital literacy so they can teach and learn in the online environment. Learning and teaching using digital media literacy is beneficial, but not necessary. Effective teaching methods should stress the significance of the instructors own personal and professional development. Digital literacy, expert knowledge, and student happiness are crucial for successful online instruction (Jalongo, 2021).

Researchers Sugar, Crawley, and Fine (2019) studied teachers' perspectives on implementing new technologies in the classroom at four different institutions in the southeastern United States. Statistical and anecdotal information about the classroom computers were collected. A school's computer uses and acceptance is influenced by the views of its teachers. Classroom use is supported by research. According to Bullock (2020), classroom teachers' mentalities can either promote or hinder students' acquisition of digital literacy. Several experts from around the world agree that teachers' attitudes are the primary factor in the effective implementation of technology in the classroom (Birkollu, Yucesoy, Baglama, & Kanbul, 2017). A significant factor in deciding whether or not to deploy new technology in the classroom is the feedback of teachers. Say (2018) contended that as educators play such a crucial role in bringing about change in the classroom, they will only adopt technologies that help them do their jobs more effectively. Talking to educators about how they incorporate technology is crucial.

Teachers' Practices towards Strengthening Digital Skills

The most fundamental skill needed to teach digital literacy is knowledge of the topic. McCord (2015) argues that in order to effectively use digital devices in the classroom, educators and students alike must be fluent in the device's native language. Moreover, McCord found out that the educator shared his or her belief that digital literacy was essential for students' development as learners. The educator claims that teaching digital literacy will help students become fully invested and involved in the learning process. However, other educators worry that young people's brains

will be damaged if they are constantly exposed to technologies like movies and TV shows that demand their full attention. Since this was the case, Clarke (2013) planned to strictly adhere to the course requirements. However, a dynamic and complicated classroom setting calls for a pedagogical style that can adapt to the needs of the students and the teacher.

The term "digital literacy" refers to the knowledge and skills that educators require in order to effectively instruct in today's pervasive digital environment. This word was coined by the Massachusetts Institute of Technology (MIT). To effectively utilise information and communication technologies (ICT), collaborate on projects, and manage data, educators need access to digital tools. Conventional teaching methods can be improved with the help of educators who have a stronger understanding of digital literacy, as can complex administrative frameworks. The degree of digital literacy an educator possesses has a direct bearing on how effective they are as educators in their respective classrooms (Genlott, Gronlund & Viberg, 2019).

The quick uptake of online education that occurred during the COVID-19 outbreak, on the other hand, has a direct impact on the increased velocity with which teachers are completing their digital training. To effectively implement digital technology in the classroom, instructors must considerably increase their digital literacy. Because of the present COVID-19 epidemic, new digital literacy skills are progressively incorporated into the vast majority of the instruction provided via online discussion boards and social media. There is a lack of citations for this section. According to certain sources. An example sentence learning will facilitate educators' acquisition of these emerging competences and skills in the years ahead. Because more and more schools are incorporating digital tools into their curriculum, teachers' own digital literacy will undoubtedly evolve with time. Students will be profoundly affected by this change (Wong, Laidlaw, & Liu, 2019).

To increase their own digital skills and those of their students, educators make use of tools like laptop computers, tablets, and the internet (YouTube, Wikiblog). However, as any educator knows, the job is far more complicated than that. Lack of access to modern learning tools is the most frequently cited problem. There is need for improvement in Indonesian education, particularly in terms of infrastructure, claim Howard-Jones and Time (2016). Problems with e-learning implementation, inadequate information and communication technology (ICT) infrastructure, and a lack of qualified personnel were also raised, with the latter two problems being most acute in rural areas.

Since both teachers and students have a hand in the education process, they must work together to build a literate digital space that encourages active participation in the classroom. Unfortunately, students lacked the knowledge to fully embrace teachers' efforts to integrate technology into their lessons. There are a number of approaches that can be taken to help pupils who are unprepared to use technology as a digital source. First, research indicates that instructing kids who aren't good at managing their own time with technology is more challenging. A recent study found that teachers would rather use conventional methods than technological aids because students are unmotivated to learn using the latter. It's evidence that students' lack of interest in learning has an effect on how often and how well technology is used in EFL classrooms. Research into the field of educational technology has shown that pupils from more affluent backgrounds are more likely to advocate for the use of digital literacy in the classroom (Lathipatud & Zuhdi, 2018).

Obstacles to Strengthening Digital Skills

Digital literacy is a subset of information literacy that refers to the cognitive ability to acquire, assess, and produce information through the use of digital means. However, those attempting to promote digital literacy (including schools, students, and teachers) have run into challenges that have hindered their capacity to do so successfully. It is difficult to effectively practise digital literacy when there are insufficient resources and technological skills available within the school system. There were some aspects of teaching digital literacy that were outside of the instructors' control, and those aspects contributed to the difficulties of the task. These factors included a lack of available equipment and resources, the demanding employment of the instructors, and the unwillingness of the students to learn via technology. In addition, there was a shortage of equipment and resources (Pratolo & Solikhati, 2020).

Policymakers, such as the government or the headmaster, are the only ones who have the ability to surmount these challenges. They can achieve this by developing educational programs for digital literacy and by putting in place infrastructure that is beneficial. The only thing that teachers could do to assist students in overcoming challenges was to provide instruction on digital literacy to the best of their abilities and to develop a backup plan in case the classroom encountered challenges that had not been foreseen. The scope of their power was limited to this.

METHODOLOGY

The research works is exploring the explanation of the research techniques that were carried out in order to finish the study that is titled "Strengthening the Digital Skills of Teachers in Online Learning" in this chapter. The study was titled "Strengthening the Digital Skills of Teachers in Online Learning." In order to finish any kind of research project successfully, it is necessary to have a deep comprehension of the research methodology that was used. It addresses a wide variety of topics, including research design, population, sample, sampling strategy, instrumentation, instrument validity and reliability, data collection strategies, and data analysis procedures, to name just a few of the many topics that it discusses. Among the many topics that it discusses, research design, population, sample, sampling strategy, instrumentation, instrument validity and reliability, and data collection strategies and procedures are discussed. In addition to this, it covers a very broad range of topics. The following information will be highlighted for each of the following components:

Sample of the Study

It is standard practice for researchers to select a representative subset of the community from which to collect data. Therefore, the author of the study recruited three hundred teachers who were working in government secondary schools for both boys and girls in the Toba Tek Singh district. The author made sure to include an equal number of teachers from each of the Tehsils in the district.

Sampling Technique

The selection of a sample from a population can be accomplished using a number of different methods. The method of straightforward random sampling is the one that the vast majority of social science researchers turn to. As a result, the researcher who conducted this study selected the secondary schools and teachers for those schools using a method of sampling that is commonly referred to as a simple random method. These secondary schools included both boys' and girls' secondary schools.

Instrument technique

An instrument is a tool that a researcher uses to gather, measure, and analyses data relating to their area of research interest. Researchers refer to these tools as "instruments." The instrument that takes the form of a questionnaire is the one that social science researchers use the most frequently. So, the researcher who worked on this study came up with a questionnaire using the Likert scale,

which has five points, after detecting the signs in the previous research. Along with a few other pieces of information pertaining to the demographics of teachers, the questionnaire includes a total of thirty upbeat statements. The data collection from the secondary school teachers was done using the same questionnaire that was used for the primary school teachers.

Data Collection

The researcher gathered the information in a number of distinct ways, including making personal trips to the secondary schools and making use of an online version of the questionnaire that was developed with the assistance of the Google form application.

Data Analysis

In order to provide a comprehensive account of the characteristics of the population and the answers to the research questions posed by the investigation, both descriptive and inferential statistics were applied to the information that was gathered after the data collection phase of the study had been completed. This was done after the information that had been gathered had been cleaned up. The analysis of the data was carried out with the assistance of Statistical Package for the Social Science (SPSS version 24).

RESULTS DISCUSSION

In order to compile the data, responses from the teachers at Toba Tek Singh's secondary school were collected through the use of a Likert scale questionnaire that contained thirty different assertions. When this was complete, the data were coded and entered into SPSS (version 24) with the same codes for use in descriptive and inferential statistics. In what follows, you'll discover tables and graphs displaying the outcomes of the data analysis, along with thorough justifications for each and every finding.

In the table above, you can see the percentage of secondary school teachers who said they could "basically function" on a computer, laptop, or Android. Table 4.13 displays the results, with 2.7% (8 teachers) strongly disagreeing, 4.7% (14 teachers) disagreeing, 6.7% (20 teachers) remaining neutral, 172 teachers (57.3%) agreeing, and 28.7% (86 teachers) strongly agreeing, with respective percentages of agree, agree, and strongly agreeing being 2.7% (8 teachers), 4.7% (14 teachers), 5.73 (57.3), and 28.7 (86 teachers). The results showed that 258 teachers (86 percent) either agreed or strongly agreed with the statement in question, while 42 teachers (14 percent) either disagreed with the statement in question or chose to remain neutral (14 percent).

This assertion likewise had a mean and standard deviation (Mean=4.05, and SD=.883) that was

within the range of acceptable agreement. Conclusion Based on the data presented here, it is evident that the vast majority of secondary school teachers agreed with the statement "I know the basic operations of computer/laptop/Android." A lesser number of educators, however, disagreed with the aforementioned assertion.

The Degree to Which Educators Have a Working Knowledge of Microsoft Office

Level of Agreement	Frequency	Percent	Mean	SD
Strongly Disagree	8	2.7		
Disagree	14	4.7		
Neutral	20	6.7	3.75	1.104
Agree	172	57.3		
Strongly Agree	86	28.7		
Total	300	100.0		

The responses that secondary school teachers and administrators gave to the question "I know how to utilise Microsoft Office (Word, PowerPoint, Excel, etc.) in my teaching-learning" are displayed in the table that is located just above this one. You can access it by clicking on the tab that says "just above this one." Because it is directly above this table, the table has been moved up such that it is just above this one. It is clear to observe, based on the findings that are reported in table 4.14, that twenty teachers offered responses indicating that they remained neutral, 86 teachers supplied responses showing that they agree, and 172 teachers provided responses indicating that they agree with the statement. According to these data, a total of 258 educators agreed or strongly agreed with the statement in question, making that amount the entire number of educators who responded to the survey (86 percent). On the other hand, 42 of the educators were classified as having a stance that was either indifferent to the statement, disagreeing with the statement, or strongly disagreeing with the statement (14 percent).

In addition, the mean value and standard deviation that were observed for this specific assertion were (Mean = 3.75, and SD =.766), and both of these values fell within the bounds of what is considered to be a satisfactory level of agreement. In other words, the assertion was supported by a level of agreement that was satisfactory. Both of these results came within the acceptable range of variation that is associated with a level of agreement that is deemed to be satisfactory. To put it

another way, there is sufficient evidence to support this assertion to an extent that may be considered satisfactory. According to the findings that were presented in the table that was located just above this one, it is now abundantly clear that the greatest number of teachers working in secondary schools were in agreement with the statement "I know how to use Microsoft Office (Word, PowerPoint, Excel, etc.) in my teaching-learning." As a consequence of this, it is now plainly evident, in light of the findings that were displayed in the table that was located just above this one, that the vast majority of instructors who are employed in secondary schools concur with The results of the survey were written down in the table that was situated directly above this one, which was in turn situated directly above this one. In contrast to this, a lesser percentage of the lecturers were of the opinion that the assertion that had been given in the previous section was not true.

Educators in secondary schools were asked, "How well do I know how to find internet content for my teaching-learning?" and their answers are given in the chart above. Table 4.15 shows that 8 teachers strongly disagree with the statement "I know how to sear." There were 14 responses from educators who disagree with the statement, 20 responses from those who were neutral, 172 responses from those who agreed with the statement, and 86 responses from those who strongly agreed with the statement, for respective percentages of 2.7%, 4.7%, 6.7%, 57.3%, and 28.7%. Based on these results, 258 teachers (or 86% of the total) agreed or strongly agreed with the statement in question, while 42 teachers either disagreed with or were neutral about the statement (14 percent).

Also, the mean and standard deviation that were calculated for this claim were (Mean = 4.04, and SD =.886), numbers that were within the range of acceptability. The answers shown in the table above this one make it plainly evident that the vast majority of secondary school teachers agree with the statement "I am able to search the internet for relevant content for my teaching-learning." But there was also a sizable group of teachers who thought that the issue couldn't be answered uniformly.

The results shows teachers' answers to the question "I know how to learn via internet platforms." Link to chart. The link leads to a table. Table 4.16 shows that eight instructors strongly disagreed with the statement "I know how to learn." In addition to those percentages (2.7%, 4.7%, 6.7%, 57.3%, and 28.7%), 14 teachers disagreed with the statement, 20 remained neutral, 172 agreed,

and 86 strongly agreed. According to the poll data, 258 educators agreed or strongly agreed with the statement. 86% 42 educators were indifferent, disagreed, or strongly disagreed with the assertion (14 percent).

Mean = 3.77 and SD = 1.112 for this statement, and both values fell inside the allowed range for agreement. This statement's mean was 3.77 and standard deviation was 1.112. Mean = 3.77, standard deviation = 1.112. The claim's mean value is 3.77, and its standard deviation is 1.112. Based on the data in the chart above, it's evident that most secondary school teachers agree with the assertion. "I am familiar with how to learn from a variety of online platforms." This was demonstrated in the table that was just above this one. This point was illustrated in the table that was located directly above this one. The table that was positioned just above this one provided an illustration of this particular point. In contrast to this, a smaller number of the educators who were questioned responded that they did not agree with the statement that was made in the previous sentence.

The results of data is shows the percentage of secondary school teachers who answered "yes" to the statement "I know how to participate in online tests" when asked about their own familiarity with online examinations. The results, reported in table 4.17, show that eight educators strongly disagree with the statement "I know how to part," There were 14 responses from educators who disagree with the statement, 20 responses from those who were neutral, 172 responses from those who agreed with the statement, and 86 responses from those who strongly agreed with the statement, for respective percentages of 2.7%, 4.7%, 6.7%, 57.3%, and 28.7%. Based on these results, 258 teachers (or 86% of the total) agreed or strongly agreed with the statement in question, while 42 teachers either disagreed with or were neutral about the statement (14 percent). The observed mean value and standard deviation for this claim were (Mean = 3.98, and SD =.927), which were both within the range of what is regarded as a satisfactory level of agreement. Given these results, it is apparent that the vast majority of secondary school teachers now agree with the statement "I am familiar with how to take part in online tests," as shown in the preceding table. In contrast, fewer teachers surveyed disagreed with the first assertion.

REFERENCES:

Ally, M. (2018). *Foundations of educational theory for online learning*. In Anderson, T. (Ed.), *Theory and practice of online learning* (pp. 15-44). Edmonton: AU Press.

Alman, S. W., & Tomer, C. (2019). *Designing online learning: A primer for librarians*. ABC-CLIO.

Aslan, A., & Zhu, C. (2017). Investigating variables predicting Turkish pre-service teachers' integration of ICT into teaching practices. *British Journal of Educational Technology, 48*(2), 552–570.

Allen, I. E., & Seaman, J. (2014). *Grade change: Tracking online education in the United States*. Babson Survey Research Group and Quahog Research Group.

Bell, B. S., & Federman, J. E. (2018). E-learning in Postsecondary Education. *The Future of Children, 23*(1), 165-185.

Birkollu, S. S., Yucesoy, Y., Baglama, B., & Kanbul, S. (2017). Investigating the attitudes of pre-service teachers towards technology based on various variables. *TEM Journal*, 6(3), 57-68.

Baartman, L. K. J., & de Bruijn, E. (2015). Integrating knowledge, skills and attitudes: Conceptualising learning processes towards vocational competence.

Bali, M. (2014). MOOC pedagogy: Gleaning good practice from existing MOOCs. *Journal of Online Teaching and Learning (JOLT), 10*(1), 44-56.

Bakia, M., Shear, L., Toyama, Y., & Lasseter, A. (2015). *Understanding the Implications of Online Learning for Educational Productivity*. Office of Educational Technology, US Department of Education.

Baartman, L. K. J., & de Bruijn, E. (2015). Integrating knowledge, skills and attitudes: Conceptualising learning processes towards vocational competence. *Educational Research Review, 6*(2), 125–134.

Chai, C. S., & Tan, S. C. (2020). Professional development of teachers for computer supported collaborative learning: A knowledge-building approach. *Teachers College Record, 111*(5), 1296–1327.

Clark, M. (2013). "*The use of technology to support vocabulary development of English language learners*," Master dissertation St. John Fisher.

Davies, A. (2014). Integrating e-learning to improve learning outcomes: a proven way for teachers to engage students and improve learning outcomes is through the appropriate use of e-learning and Web 2.0 tools in teaching. *Planning for Higher Education Journal, 42*(4), 23-29.

El-Hussein, M. O. M., & Cronje, J. C. (2014). Defining mobile learning in the higher education landscape. *Educational Technology & Society, 13*(3), 12-21.

Genlott, A.A.; Gronlund, A.; Viberg, O. (2019). Disseminating digital innovation in school-leading second-order educational change. *Educ. Inf. Technol., 24*, 3021–3039.

Hamalainen, R., DeWever, B., Nissinen, K., & Cincinnato, S. (2019). What makes the difference–PIAAC as a resource for understanding the problem solving skills of Europe's higher-education adults. *Computers & Education, 129*, 27–36.

Howard-Jones, P.A., & Tim, J. (2016). "Reward, learning and games," *Current Opinion in Behavioral Sciences,10*, 65–72.

Keengwe, J., Schnellert, G. L., & Kungu, K. (2014*). Cross-cultural Online Learning in Higher Education and Corporate Training*. IGI Global.

Krause, M. (2017). Differences and developments in attitudes and self-efficacy of prospective chemistry teachers concerning the use of ICT in education. *Eurasia Journal of Mathematics, Science and Technology Education, 13*(8), 4405–4417.

Lathipatud, T., & Zuhdi, M. (2018). Digital literacy with EFL student teachers: Exploring Indonesian student teachers' initial perception about integrating digital technologies into a teaching unit. *Int. J. Educ. Lit. Stud., 6*, (3), 53-60.

McCord, S.S. (2015). "*Digital literacy in the classroom: Teachers' attitudes towards technology and the language curriculum," A research paper submitted in conformity with the*

requirements for the degree of Master of Teaching Department of Curriculum, Teaching and Learning Ontario Institute for Studies in Education of the University of Toronto.

Moore, M. G., & Kearsley, G. (2015). *Distance education: A systems view of online learning*. Cengage Learning.

Palloff, R. M., & Pratt, K. (2016). *The excellent online instructor: Strategies for professional development*. San Franscisco: Jossy Bass.

OECD. (2014). *TALIS 2013 results: An international perspective on teaching and learning*. OECD Publishing.

Pratolo, B. W., & Solikhati, H. A. (2020). Investigating teachers' attitude toward digital literacy in EFL classroom. *Journal of Education and Learning*, *15*(1), 97–103. https://doi.org/10.11591/edulearn.v15i1.15747.

Palloff, R. M., & Pratt, K. (2016). *The excellent online instructor: Strategies for professional development*. San Franscisco: Jossy Bass.

Redecker, C. (2017). In Y. Punie (Ed.), Office of the European Union European framework for the digital competence of educators: *DigCompEdu*. https://doi.org/10.2760/159770.

Spiteri, M., & Rundgren, S. N. C. (2020). Literature review on the factors affecting primary teachers' use of digital technology. *Technology, Knowledge and Learning, 25* (1), 115–128.

Scherer, R., Tondeur, J., Siddiq, F., & Baran, E. (2018). The importance of attitudes toward technology for pre-service teachers' technological, pedagogical, and content knowledge: Comparing structural equation modeling approaches. *Computers in Human Behavior, 80*, 67–80.

Selwyn, N. (2007). The use of computer technology in university teaching and learning: a critical perspective. *Journal of computer assisted learning*, *23*(2), 83-94.

Saye, J. W. (2018). Technology in the classroom: The role of dispositions in teacher gatekeeping. *Journal of Curriculum and Supervision, 13*(3), 210–234.

Tezci, E. (2019). Teachers' effect on ICT use in education: The Turkey sample. *Procedia - Social and Behavioral Sciences, 1*(1), 1285–1294.

Van Laar, E., Van Deursen, A. J., Van Dijk, J. A., & De Haan, J. (2017). The relation between 21st-century skills and digital skills: A systematic literature review. *Computers in Human Behavior*, 72, 577–588.

Wong, S., Laidlaw, L., & Liu, Y.N. (2019). Reimagining professional development for digital literacies: Old, new and pandemic. *Lang. Lit., 23*, 49-60.

Zamora-Antunano, M.A., Rodriguez-Resendiz, J., Segura, L.R., Perez, M.A.C., Corro, J.A.A., Paredes-Garcia, W.J., & RodriguezResendiz, H. (2021). Analysis of emergency remote education in COVID-19 crisis focused on the perception of the teachers. *Sustainability, 13*, 3820-3830.