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Readiness Assessment for Online Learning among Students in Public Sector Universities

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Abstract

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Title

Readiness Assessment for Online Learning among Students in Public Sector Universities

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Contents

Abstract

The objective of the study was to explore Student Readiness in Online Learning Environment: Student readiness in the online learning environment is a crucial factor in determining academic success. The research was descriptive and to attain the objectives a sample of a total of 300 students 92 male and 208 female students from the Bahauddin Zikariya University, Emerson University Multan, and The Women University Multan. The findings revealed students' overall moderate level of readiness for the online learning environment and positive attitude towards various aspects of online education. The study findings may help institutions and teachers by providing further training to improve students' digital skills, ensuring the improvement of learning practices in new online environments, and implementing guidelines and policies.

Keywords: Online Learning, Student Readiness, Universities

Introduction

Online learning, in contrast to traditional distance learning programs, utilizes the Internet and offers greater flexibility, lack of organization, and interactivity in learning environments (Kayak and Dorsum, 2013). In the present study, instructors must evaluate the students's preparedness for the online learning environment. The present study's readiness is to examine learners' preparedness for online learning as well as the obstacles they encounter while using it (Chung et al., 2020).

Put simply, technologies enhance the quality of education by enabling pupils to study more efficiently when they use technology as a learning aid. The establishment of a technological innovation center enhances the educational atmosphere and cultivates a more advanced culture (Ali &Anwar, 2021). Aldhafeeri and Khan (2016) asserted that online education has become prevalent in the current era of digital technology.

Five dimensions assess online learning readiness: learner control, internet self-efficacy, learner self-efficacy, self-directed learning, and motivation to study. Luu (2022) identified four constructs: technical skills, digital engagement, learning choice, and learner attitude. Each dimension encompasses multiple subdimensions. The components include psychological preparedness, sociological readiness, environmental readiness, financial readiness, human resource readiness, technical skill readiness, equipment readiness, and content readiness (Mercado, 2008).

To optimize the learning environment, it is crucial to offer academic assistance, psychological counseling, and training workshops to both staff and students, considering the dynamic nature of the current era (Mantha& Krishna, 2024). Warner et al. (1998) first proposed the importance of adequately equipping students for the online learning process. Recent research has also prioritized readiness as a crucial element of the online learning environment. Liu (2019) defines preparedness as the state of being ready for students to engage in online learning activities. Despite the annual increase in students enrolling in online education programs, opinions among instructors and students regarding these programs remain varied (Doe et al., 2017). Based on the statistics, the four learning modes that are most preferred by students are contextual, associative, collaborative, and self-supportive.

Various studies have examined online learning and the challenges it presents, but none of them have specifically focused on the student's viewpoint, especially about their level of readiness. An analysis of students' readiness in educational institutions in Pakistan's online education system will enable stakeholders and decision-makers to assess and improve the quality of online learning in response to evolving circumstances (Akhtar et al., 2022). Indeed, students who are not well prepared tend to achieve lower performance levels in online learning environments. Requiring students to complete online courses before they are adequately prepared may lead to a detrimental online learning experience and a predisposition against taking future online courses. Evaluate students' readiness for online learning, and devise a system for assessing their readiness to improve their performance in virtual learning settings.

Supposedly, the likelihood of dropping out is another significant aspect to consider when assessing preparation for online learning. The present study, which focuses on individuals obligated to take online courses, necessitates a comparison of its findings with those of prior studies documented in the literature (Torun, 2019).

Given the nascent stage of online learning, further theoretical study is necessary. According to a comprehensive analysis of both national and international studies on e-learning, online learning is a modern educational approach primarily focused on individual learners, facilitated by the use of information technology to assist self-directed learning. Moreover, the preferences and inclinations of pupils now determine both the subject matter and the teaching methods, removing the teachers' jurisdiction over content acquisition. This educational system, characterized by learner control, self-paced learning, and student responsibility for accessibility and assessment, provides three justifications for universities to invest in e-learning. These technologies, in particular, improve the quality of the courses offered. Additionally, they enhance course delivery efficiency and offer prospects for training both new and existing student cohorts using more adaptable approaches (Ali & Anwar, 2021). An individual's assessment of their computer skills and their perception of their application to various tasks determine their computer self-efficacy.

Consequently, students are more likely to succeed in their academic pursuits if they possess the ability to collaborate with others using technological means. This is supported by the results of a researcher's study. Luu (2022) has shown that students who face difficulties with technology exhibit reduced self-confidence in their ability to communicate with others. Consequently, this lack of confidence results in decreased engagement in online learning environments. Their proficiency in computer usage and computer accessibility could influence the duration of their enrolment in online courses. This category takes into account the student's aptitudes and any potential obstacles that may develop (Debey, 2016).

Devi's (2006) research indicates that to excel in online learning courses, students must have a sufficient level of technological proficiency and exhibit the capacity for self-management. This

category encompasses all the essential skills required to adequately prepare for online learning. Regarding the process of acquiring knowledge, students frequently have a preferred mode of teaching. The student's selected learning style is a manifestation of their aptitudes, the learning environment, and their prior experiences. Under some circumstances, students have the option to switch to a different learning approach; nonetheless, the majority of the time, they persist with the learning style that yields the best results for them.

Web-based learning environments offer learners the autonomy to choose the information they want to access, whereas traditional learning environments do not. This information is then organized, allowing for adaptable and personalized learning opportunities. In the realm of online learning, students can choose their preferred learning styles and access tailored instructional materials. This is true regardless of the educational sequence they are pursuing. Online learning environments empower students to assume responsibility for their education by enabling them to select the tactics and procedures that best align with their individual needs (Torun, 2019).

Unprepared students consistently encounter failure in online learning contexts. Enforcing students to finish online courses before they are adequately prepared could lead to a negative online learning experience and foster bias toward future online courses. Evaluate the level of student preparedness for online learning and provide a method for assessing student readiness to improve their performance in virtual learning settings. Evaluate the level of student preparedness for online learning and provide the students' two researchers with a method for assessing their readiness. It is crucial to compare the current study's findings with those of earlier studies in the existing literature, specifically focusing on those enrolled in mandatory online courses, to ensure its validity (Torun, 2019). Torun (2019) suggests comparing the current study's findings with those of previous studies in the existing literature, with a specific focus on students enrolled in mandatory online courses.

Online education is still in its nascent phase in developing nations like Pakistan. Moreover, within the realm of online education, professors no longer possess the power to mandate the specific knowledge that students must acquire. Rather, the student's interests determine the topic matter and learning style. Preparing students for an online learning environment is essential for successfully implementing an online platform in a setting where learners have autonomy over their learning and can progress at their own pace, with convenient access and assessment (Ali & Anwar, 2021). Therefore, an individual's perception of their computer proficiency and their assessment of the importance of computer-related skills are critical for their academic success in an online environment. Students who struggle with technology usage often have lower levels of confidence in their ability to interact with others, leading to reduced participation in online learning settings (Luu, 2022). Their computer literacy and technology availability can influence their level of dedication to online courses. Their computer literacy and technology availability can influence their level of dedication to online courses.

Devi (2006) states that to succeed in online learning courses, students must have a certain level of technological competency and self-regulation abilities. This category includes the fundamental abilities necessary to fully prepare for online learning. Web-based learning environments provide learners with the freedom to independently select the material they wish to access, in contrast to traditional learning settings. Such environments offer learners the opportunity to engage in flexible and personalized learning experiences, thanks to the content's supportive structure. Furthermore, the transfer of knowledge is shifting from the teacher to the learner by employing multimedia resources including interactive whiteboards, movies, hypermedia, and computer simulations. One of the most notable changes in education has been the shift from emphasizing teaching to emphasizing learning. (Ali & Anwar, 2021).

Definition of Online Learning Readiness

Over the past few years, online learning in higher education has shifted from a model where the structure dictates the learning process to one that prioritizes the student and utilizes technology. Online learning offers several potential benefits, such as the ability to overcome the limitations of time and space found in traditional educational

settings (Chug et al., 2020). Tania and Saputra (2020) assert that online learning offers greater flexibility and is not bound by time limitations. Warner, Christie, and Choy (1998) initially introduced the concept of online learning readiness to the Australian technical vocational education and training (TVET) sector. Readiness, as defined by the Cambridge Advanced Learner's Dictionary, is the state of being willing and prepared for anything. Preparedness and readiness are synonymous concepts, since professionals use these terms interchangeably (Junus et al., 2021). Personal encounters with the firm and its cultures mold and develop the attitude, influencing various factors such as the content, method, setting, and individuals involved (Luu, 2022). Investigators carried out subsequent investigations to identify the indicators of OLR. According to McKay (2000), two researchers conducted subsequent investigations to identify the indicators of OLR, specifically the capacity for directed learning.

E-learning readiness encompasses the ability to enhance the quality of learning and optimize the benefits of e-learning. The primary attributes of preparedness in online learning environments include the availability of online learning alternatives, similar to preparedness for in-person instructional methods, comfort in using technical tools, and the capacity for autonomous study (Torun, 2019). The literature identifies four factors: (A) computer and internet self-efficacy; (B) comfort with online learning; (C) technical competence; (D) learning choice; and (E) digital engagement (Debey, 2016). Researchers have discovered that basic computer skills such as starting up the computer do not correlate with computer self-efficacy. Instead, it refers to an individual's perception of their ability to use computers to accomplish tasks, such as analyzing data with software (Hung et al., 2010). Student participation encompasses students' behaviors, emotions, and cognitions. The three categories of academic engagement, namely behavioral, emotional, and cognitive, provide specific insights into motivation, self-regulated learning, interests or attitudes, and on-task behavior (Yang et al., 2018). Enhancing long-term student engagement in the classroom has become a significant educational objective due to two primary reasons. Firstly, meaningful learning requires active involvement and participation. Secondly, sustaining engagement

requires the development of cognitive and socioemotional skills, which are also important learning outcomes (Mello, 2021). Consequently, when students are eager to engage in electronic collaboration with others, they can achieve significant academic success.

Findings from a researcher's inquiry. Luu (2022) found that individuals who experience discomfort with technology exhibit lower self-efficacy in social relationships, resulting in decreased engagement in online learning environments. Similarly, Devi (2006) noted that students must possess self-management skills and feel at ease with technology to effectively participate in online learning courses. This category includes all the necessary skills and competencies required to effectively participate in online learning. Students frequently exhibit a preference for a specific learning methodology. The student's selected learning style is a reflection of their aptitude, environment, and prior educational encounters. Children may occasionally transition to a different learning style, but typically they adhere to a single type. Every learning style has its distinct traits, but none is considered inferior. Students have varying learning styles, which is why they interact with knowledge in different ways (Mkonto, 2015). Moreover, the learning activities should generate students who possess digital competence and are capable of adapting to changes (Indraswati et al., 2020). In this context, Liu (2019) defined preparedness as the state of being ready for students to participate in online learning activities. In a study conducted by Martin et al. (2020), a comparison was made between students who attended classes on campus and those who took lessons online. The researchers found that on-campus students were more inclined to engage in computer-mediated communication, such as talking or tweeting. Additionally, on-campus students had a greater number of external motivators for their academic success. Primarily, a learning system should possess configurations that enhance students' capacity for self-directed learning. We should provide learners with necessary self-direction strategies if they require guidance. Although the research has made significant contributions to the current connected issue, it also has a few shortcomings. Before the emergence of online learning, there was no means of evaluating learners' readiness for technical proficiency. We can classify technical talents into

various categories. Several historical, individuals in fields such as mathematics, computer science, mechanics, and information technology have relied on technical skills (Birt, 2023).

Figure 1

Online Learning Readiness
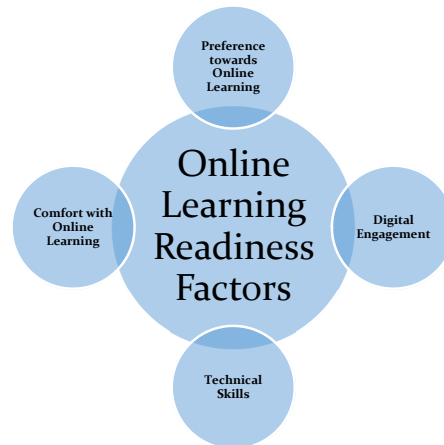
Literature Review

Researchers have conducted numerous studies to assess students' preparedness for online learning (Rafique et al., 2020). Hung et al. (2010) conducted a research investigation to develop a scale for evaluating students' readiness for e-learning and to explore their thoughts on their preparedness. In addition, Coopasami et al. (2017) examined the readiness of students to shift from traditional learning to the technological environment of e-learning at an institution in Durban. The results indicated that students had a high level of psychological readiness for e-learning but were deficient in terms of technological proficiency and equipment preparedness. Before the successful implementation of e-learning at this institution, it is imperative to address these technological considerations. Nevertheless, these technological challenges are more manageable compared to improving psychological readiness. In addition, the COVID-19 pandemic led to substantial closures of educational institutions, resulting in the disruption of conventional learning (Loglo & Zawacki-Richter, 2023). From a moral standpoint, online learning has developed into a reliable choice that offers opportunities for more knowledge while potentially expanding accessibility (Biccard et al., 2023).

However, it also revealed challenges, particularly in the context of digital inequality. The difficulties encompassed a range of challenges, including psychological barriers like fear as well as practical obstacles such as limited access to devices and internet connectivity (Biccard et al., 2023). Furthermore, Dhawan (2020) identified challenges related to competency access, such as the ability to effectively use technology and gain access to necessary resources. Consequently, experts recommended that both students and teachers undergo training and allocate resources towards digital infrastructure. Scholars have recognized the importance of digital competence for achieving success in e-learning (Zhao et al., 2021). Therefore, higher education institutions should prioritize the development of students' digital competencies (Blayone et al., 2017; Khan, 2020).

Objectives of the Study

1. To explore the student's readiness on comfort with online learning, digital engagement, and technical skills.
2. To examine student's readiness in online learning environments based on demographic variables i.e., gender and universities.

Methodology

The current study aimed to assess students' preparedness in an online learning environment in universities. The study was both descriptive and quantitative, and it was conducted using a survey

approach. Furthermore, the target audience for investigation was Multan's public sector universities. This study used a survey research approach and included all male and female students from Bahauddin Zakariya University, Emerson University, and Women's University. The population for this study was picked at random from the departments of Education, Psychology, Political Science, Mass Communication, and Sociology at the University of Emerson, The Women's University, and Bahauddin Zakariya University (BZU) Multan. There were 80611 students representing the population, including 96 students from The Women's University, 73 from the University of Emerson, and 131 from Bahauddin Zakariya University in Multan.

The research questionnaire included three elements for evaluating student preparedness in an online learning environment: difficulties. The questionnaires used for quantitative data collection consisted of 29 items on a Likert scale. A questionnaire was created following a thorough review of the relevant literature and extensive consultation with various specialists. Furthermore, specialists assessed the questionnaire's faults and strengths, and they revised the item statements in terms of both substance and format. The researcher improved each statement based on the comments from the experts. Finally, the research instrument for data collecting was developed such that university students could simply grasp it. Before collecting final data, a pilot study was done to ensure the tool's validity, also known as a pilot study. Cronbach's alpha was used to calculate reliability, and the findings suggest that the questionnaire has an acceptable reliability of 0.77. The researcher personally administered the questionnaire. The response rate was around 80%, which is appropriate for survey research. An acceptable data analysis approach was used. Descriptive statistics were employed to obtain the mean and standard deviation, and ANOVA was performed using SPSS (Statistical Program for Social Sciences) version 27.

Data Analysis

Table 1

Distribution of Gender Among Students

Gender	Frequency	Percent
Male	96	32.0
Female	204	68.0
Total	300	100.0

The table shows that out of a total of 300 individuals, 32.0% are male (96 individuals) and 68.0% are female (204 individuals).

Table 2

Preference towards Online Learning

Statements	N	Range	Minimum	Maximum	Mean	Std. Deviation
I am highly motivated to get an online learning.	300	4	1	5	2.34	.721
I can express my thoughts and ideas on online platforms.	300	4	1	5	1.29	.537
I feel the flexibility of time is an important motivating factor in taking online learning.	300	4	1	5	3.59	1.042

Statements	N	Range	Minimum	Maximum	Mean	Std. Deviation
I receive more attention from the instructor in online learning.	300	4	1	5	3.73	1.072
I look forward to learning new skills and mastering them in online settings.	300	4	1	5	3.42	1.167
I believe online learning has its advantages.	300	4	1	5	3.28	1.289
I can communicate with others using online technologies with ease.	300	4	1	5	3.43	1.212
I think technology always makes learning easy.	300	4	1	5	3.62	1.155
Online learning makes students responsible for the course.	300	4	1	5	3.82	1.109

The research on students' preparedness for online learning reveals varying degrees of agreement in several areas. Students usually believe that they receive better attention from professors in an online setting (mean = 3.73, SD = 1.072), and that time flexibility is a big motivator (mean = 3.59, SD = 1.042). However, their enthusiasm to participate in online learning is low (mean = 2.34, SD = 0.721), and they are least confident in sharing their views and ideas on online platforms (mean = 1.29, SD = 0.537). This implies that, while students value some aspects of online learning, they also experience substantial issues with motivation and communication. Students firmly feel that online learning promotes responsibility (mean = 3.82, SD = 1.109) and that teachers pay greater attention to them (mean = 3.73, SD = 1.072). They also value time flexibility (mean = 3.59, SD = 1.042) and believe that technology makes learning easier (mean = 3.62, SD = 1.155). While they are typically at ease communicating with online technology (mean = 3.43, SD = 1.212) and eager to acquire new skills online (mean = 3.42, SD = 1.167), they recognize the benefits of online learning (mean = 3.28, SD = 1.289). However, the desire to participate in online learning remains low (mean = 2.34, SD = 0.721), and confidence in expressing thoughts and ideas on online platforms is at its lowest (mean = 1.29, SD = 0.537). This suggests that, while students understand the benefits and obligations of online learning, they have issues with motivation and communication

Table 3

Comfort with Online Learning

Statements	N	Range	Minimum	Maximum	Mean	Std. Deviation
I can access the internet to facilitate my studies.	300	4	1	5	3.76	1.158
Online platforms like LMS meet the student's needs.	300	4	1	5	3.83	1.144
I can study at my own pace with online learning.	300	4	1	5	3.88	1.033
The online platform often serves as a source of learning for me.	300	4	1	5	3.89	1.041
An online workbook is a useful tool for me to study.	300	4	1	5	3.78	1.112

The research on students' comfort levels with online learning indicates a generally good attitude toward many components of online education. Students are confident in their abilities to use the Internet for academic purposes (mean = 3.76, SD = 1.158) and believe that online platforms, such as Learning Management Systems (LMS), successfully suit their demands (mean = 3.83, SD = 1.144). They also appreciate the ability to study at their speed (mean = 3.88, SD = 1.033) and see online platforms as excellent learning tools (mean = 3.89, SD = 1.041). Furthermore, students consider online workbooks to be effective study resources (mean = 3.78, SD = 1.112). These findings show that students feel comfortable with many aspects of online learning, emphasizing its efficacy and value in supporting their education.

Table 4

Digital Engagement

Statements	N	Range	Minimum	Maximum	Mean	Std. Deviation
I can use email, internet spreadsheets, and documents for learning.	300	4	1	5	3.76	1.108
I do have a reliable device and internet service to use for online learning.	300	4	1	5	3.77	1.091
I can actively communicate online via email or online forums.	300	4	1	5	3.76	.972
I feel more confident in my online learning skills after incorporating technology into my learning routine.	299	4	1	5	3.86	1.091

The examination of students' digital interaction reveals their competency and preparedness to use technology for learning goals. Students feel comfortable utilizing different digital tools for learning, such as email, the internet, spreadsheets, and documents (mean = 3.76, SD = 1.108), and they are confident in having dependable equipment and internet services for online education (mean = 3.77, SD = 1.091). Furthermore, they believe they can actively communicate online using platforms such as email or online forums (mean = 3.76, SD = 0.972). Furthermore, students express enhanced confidence in their online learning abilities after incorporating technology into their learning routines (mean = 3.86, SD = 1.091). These studies highlight students' comfort and competency in using digital tools and platforms to improve their learning experiences.

Table 5

Technical Skills

Statements	N	Range	Minimum	Maximum	Mean	Std. Deviation
I know how to install different software to support my learning using computers.	300	4	1	5	3.72	1.120
I feel at ease when working with computers.	300	4	1	5	3.73	1.126
I can fix most problems related to the use of computers.	300	4	1	5	3.58	1.105

I have maximum knowledge related to the use of gadgets.	300	4	1	5	3.68	1.117
I can use worksheets, e.g. Excel, and PowerPoint.	300	4	1	5	3.66	1.231

The study of students' technical skills reveals a generally high degree of competency and comfort with many elements of computer use. Students are confident in their abilities to install various applications to help their learning on computers (mean = 3.72, SD = 1.120) and are comfortable dealing with computers in general (mean = 3.73, SD = 1.126). While they are significantly less confident in their ability to solve most computer-related problems (mean = 3.58, SD = 1.105), they nevertheless have a high degree of competence in this area. Furthermore, students express a high degree of familiarity with technology (mean = 3.68, SD = 1.117) and confidence in utilizing software tools such as Excel and PowerPoint (mean = 3.66, SD = 1.231). These findings show that pupils have developed strong technical skills that will help them learn, while their troubleshooting abilities may vary.

Table 6

T-T-test about factors based on Gender

Factors	Gender	N	Mean	Std. Deviation	Std. Error Mean	T	df	Sig. (2-tailed)	Mean Difference
Online Learning Readiness.	Male	96	26.9167	4.77199	.48704	-3.871	298	.000	-2.35784
	Female	204	29.2745	4.98995	.34937				
Comfort with Online Learning	Male	96	18.6042	3.29746	.33655	-1.722	298	.086	-.77819
	Female	204	19.3824	3.80574	.26645				
Digital Engagement	Male	96	14.4271	3.20770	.32738	-2.848	297	.005	-1.04582

The table compares many aspects of online learning across genders. Females had considerably greater levels of preparedness for online learning than males, as seen by their higher mean score in Online Learning preparedness (29.2745 vs. 26.9167, p <.001). Females had greater levels of Digital Engagement (15.4729 vs. 14.4271 for males, p =.005), but there are no significant gender differences in Comfort with Online Learning or Technical Skills. However, females report significantly larger obstacles in online learning than males (23.2647 for females vs. 22.3438 for males, p =.048). These data imply that, while females are typically better prepared and engaged in online learning, both genders confront comparable levels of comfort and technical proficiency, with females facing slightly more problems.

Table 7

ANOVA test about factors based on the University

Factors		Sum of Squares	Df	Mean Square	F	p
Online Learning Readiness.	Between Groups	1261.113	2	630.556	29.633	.000
	Within Groups	6319.767	297	21.279		
	Total	7580.880	299			
Comfort with Online	Between Groups	467.884	2	233.942	19.601	.000

Learning	Within Groups	3544.782	297	11.935		
	Total	4012.667	299			
	Between Groups	394.382	2	197.191	25.522	.000
Digital Engagement	Within Groups	2286.996	296	7.726		
	Total	2681.378	298			
	Between Groups	270.719	2	135.359	10.908	.000
Technical Skill	Within Groups	3685.468	297	12.409		
	Total	3956.187	299			
	Between Groups	151.067	2	75.533	5.461	.005
Challenges for Student	Within Groups	4107.663	297	13.831		
	Total	4258.730	299			

The ANOVA results show significant differences between groups across all factors: online learning readiness (F (2, 297) = 29.633, p <.001), comfort with online learning (F(2, 297) = 19.601, p <.001), digital engagement (F(2, 296) = 25.522, p <.001), technical skill (F(2, 297) = 10.908, p <.001), and student challenges (F(2, 297) = 5.461, p =.005). These data indicate that students' preparation, comfort, engagement with digital tools, technical abilities, and problems in online learning differ greatly depending on their institution affiliation. University policies, resources, support systems, and the quality of online learning platforms all have the potential to affect students' online education experiences and outcomes. Further research into the unique distinctions between various universities might yield useful insights for enhancing online learning experiences and support measures.

Discussion

The purpose of this research study was to analyze student preparation in an online learning environment: obstacles and potential solutions. Student preparation for online learning should be evaluated since students must be able to efficiently use technology and be motivated to improve their pleasure with online learning. These findings corroborated the earlier research (KAYMAK & HORZUM 2013). In this regard, it is believed that more contact reduces structure. The structure comprises course design, updateable material, and individual flexibility to student needs (Moore& Kersey, 2012). Readiness for online learning is defined as computer/internet self-efficacy, self-directed learning, student control, drive to learn, and online communication self-efficacy. These results are consistent with the literature (Chen, 2001). It was said once more that readiness should be enhanced to promote interaction to generate more effective learning in online learning, which is consistent with previous research (Hung et al., 2010). These findings may explain why students were hesitant to utilize online learning during the pandemic since their preparedness was moderate (Futch et al., 2016). These findings supported prior research, which found that Taiwanese students regarded communication abilities as reasonably strong when compared to self-directed learning and learner management competencies among undergraduate college students (Zimmerman& Kulikowich, 2016). In previous studies, researchers discovered that self-efficacy, which reflects student confidence, has a favorable influence on peer engagement, learning management system interaction, and business college students (Mazanov et al. 2016). The findings of this study show that undergraduate students are ready and well-equipped to tackle online learning during the COVID-19 pandemic (Hasim& Yousif, 2022). Overall, the findings revealed that preparedness for online learning is favorably connected to engagement in online learning settings but adversely related to perceived structure. Ensuring student preparation is critical because it enables students to succeed in online learning settings, stay motivated, and accomplish academic goals.

Conclusion

In conclusion, student preparation in online learning settings is an important component in envisaging academic achievement. However, many students struggle to familiarize themselves with online learning because they lack technological capabilities, self-directed learning abilities, and communication skills. To address these issues,

educators and institutions must emphasize assessing and improving student preparation, offering extensive technical training and assistance, and encouraging a sense of community and involvement. Potential solutions include technical training and aid, self-directed learning tools and seminars, communication skills development, digital literacy training, and adaptive and personalized online learning systems.

Addressing these problems and applying viable solutions can help educators and institutions improve student preparation in online learning settings, resulting in enhanced academic performance, student happiness, and a more inclusive and effective online learning experience. Overall, student training in online learning environments necessitates a holistic strategy that considers technical, social, and communicative skills. By focusing on student preparation, we can realize the full potential of online learning and deliver high-quality education to everybody.

Recommendations

This research provides a few recommendations as follows:

- This study analyzes student preparation in online learning environments, including challenges and potential solutions. In the future, studies will be conducted in different provinces or districts of Punjab to collect results from both government and private universities.
- The study analyzed student preparation in an online learning environment using a questionnaire. However, future studies will also be qualitative, with research data collected using the interview approach.

References

Akhtar, S. (2022). Exploring Students' Readiness in Context of Transformation from Traditional to Online Teaching Practices at Higher Education Institutions. *Pakistan Social Sciences Review, 6*(II). https://doi.org/10.35484/pssr.2022(6-ii)13
Google Scholar   Worldcat   Fulltext

Aldhafeeri, F. M., & Khan, B. H. (2016). Teachers' and students' views on E-Learning readiness in Kuwait's secondary public schools. *Journal of Educational Technology Systems, 45*(2), 202–235. https://doi.org/10.1177/0047239516646747
Google Scholar   Worldcat   Fulltext

Ali, B. J., & Anwar, G. (2021). Implementation of e-learning system readiness: The effect of the cost readiness on implementing e-learning. *International Journal of Electrical Electronics and Computers, 6*(3), 27–37. https://doi.org/10.22161/eec.63.4
Google Scholar   Worldcat   Fulltext

Biccard, P., Mudau, P. K., & Van Den Berg, G. (2023). Student Perceptions of Online Examinations as an Emergency Measure during Covid-19. *Journal of Learning for Development, 10*(2), 222–235. https://doi.org/10.56059/jl4d.v10i2.672
Google Scholar   Worldcat   Fulltext

Birt, J., Safari, M., & De Castro, V. B. (2023). Critical analysis of integration of ICT and data analytics into the accounting curriculum: A multidimensional perspective. *Accounting and Finance, 63*(4), 4037–4063. https://doi.org/10.1111/acfi.13084
Google Scholar   Worldcat   Fulltext

Blayone, T. J. B., Mykhailenko, O., vanOostveen, R., Grebeshkov, O., Hrebeshkova, O., & Vostryakov, O. (2017). Surveying digital competencies of university students and professors in Ukraine for fully online collaborative learning. *Technology Pedagogy and Education, 27*(3), 279–296. https://doi.org/10.1080/1475939x.2017.1391871
Google Scholar   Worldcat   Fulltext

Chen, Y. (2001). Transactional distance in World Wide Web learning environments. *Innovations in Education and Teaching International, 38*(4), 327–338. https://doi.org/10.1080/14703290110074533
Google Scholar   Worldcat   Fulltext

Chung, E., Noor, N. M., & Mathew, V. N. (2020). Are You Ready? An Assessment of Online Learning Readiness among University Students. *International Journal of Academic Research in Progressive Education and Development, 9*(1), 301–317. https://hrmars.com/papers_submitted/7128/are-you-ready-an-assessment-of-online-learning-readiness-among-university-students.pdf
Google Scholar   Worldcat   Fulltext

DeBey, E. K. (2016). *An analysis of the ToOLS online readiness instrument as an indicator of student success in online courses in a community college environment* (Doctoral dissertation, Oklahoma State University). ProQuest Dissertations & Theses Global.
Google Scholar   Worldcat   Fulltext

Devi, P. (2006). *An ICT-based distance education model: An evaluation of ICT-based modes at the University of the South Pacific* (Doctoral dissertation, Open Access Te Herenga Waka-Victoria University of Wellington).
Google Scholar   Worldcat   Fulltext

Dhawan, S. (2020). Online learning: a panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems, 49*(1), 5–22. https://doi.org/10.1177/0047239520934018
Google Scholar   Worldcat   Fulltext

Doe, R., Castillo, M. S., & Musyoka, M. M. (2017). Assessing online readiness of students. *Online Journal of Distance Learning Administration, 20*(1). http://www.westga.edu/~distance/ojdla/spring201/doe_castillo_musyoka201.pdf
Google Scholar   Worldcat   Fulltext

Futch, L. S., deNoyelles, A., Thompson, K., & Howard, W. (2016). "Comfort" as a critical success factor in blended learning courses. *Online Learning, 20*(3). https://doi.org/10.24059/olj.v20i3.978
Google Scholar   Worldcat   Fulltext

Hasim, N., & Yusof, J. (2022). Online learning readiness and satisfaction among undergraduate students. In *Lecture notes in networks and systems* (pp. 469–480). https://doi.org/10.1007/978-3-031-20429-6_43
Google Scholar   Worldcat   Fulltext

Hung, M., Chou, C., Chen, C., & Own, Z. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers & Education, 55*(3), 1080–1090. https://doi.org/10.1016/j.compedu.2010.05.004
Google Scholar   Worldcat   Fulltext

Indraswati, D., Marhayani, D. A., Sutisna, D., Widodo, A., & Maulyda, M. A. (2020). Critical thinking and problem-solving in IPS learning to answer the challenges of the 21st century. *Social Horizon: Journal of Social Education, 7*(1), 12–28.
Google Scholar   Worldcat   Fulltext

Junus, K., Santoso, H. B., Putra, P. O. H., Gandhi, A., & Siswantining, T. (2021). Lecturer Readiness for Online Classes during the Pandemic: A Survey

Research. *Education Sciences*, *11*(3), 139. https://doi.org/10.3390/educsci11030139
Google Scholar   Worldcat   Fulltext

Khan, M. A., Vivek, V., Nabi, M. K., Khojah, M., & Tahir, M. (2020). Students' Perception towards E-Learning during COVID-19 Pandemic in India: An Empirical Study. *Sustainability*, *13*(1), 57. https://doi.org/10.3390/su13010057
Google Scholar   Worldcat   Fulltext

Liu, J. C. (2019). Evaluating online learning orientation design with a readiness scale. *Online Learning*, *23*(4). https://doi.org/10.24059/olj.v23i4.2078
Google Scholar   Worldcat   Fulltext

Luu, T. M. V. (2022). Readiness for online learning: Learners' comfort and Self-Directed Learning ability. *International Journal of TESOL & Education*, *2*(1), 213–224. https://doi.org/10.54855/ijte.222113
Google Scholar   Worldcat   Fulltext

Mantha, M. S., & Krishna, P. V. (2024). *A literature review of learning preferences, motivational factors, and training needs among different generations of baby boomers, Gen X, Gen Y, and Gen Z students and professionals.*
Google Scholar   Worldcat   Fulltext

Martin, F., Stamper, B., & Flowers, C. (2020). Examining student perception of readiness for online learning: Importance and confidence. *Online Learning*, *24*(2). https://doi.org/10.24059/olj.v24i2.2053
Google Scholar   Worldcat   Fulltext

Mckay, M. D., Beckman, R. J., & Conover, W. J. (2000). A Comparison of Three Methods for Selecting Values of Input Variables in the Analysis of Output from a Computer Code. *Technometrics*, *42*(1), 55. https://doi.org/10.2307/1271432
Google Scholar   Worldcat   Fulltext

Mercado, C. (2008). Readiness assessment tool for an e-learning environment implementation. *International Journal of the Computer, the Internet and Management, 16*(11), 1–11.
Google Scholar   Worldcat   Fulltext

Mkonto, N. P. (2015). Students' learning preferences. *Journal of Studies in Education*, *5*(3), 212–235. https://doi.org/10.5296/jse.v5i3.8125

Google Scholar   Worldcat   Fulltext

Moore, M. G., & Kearsley, G. (2012). *Distance education: A systems view* (3rd ed.). John Wiley & Sons.
Google Scholar   Worldcat   Fulltext

Rafique, G. M., Mahmood, K., Warraich, N. F., & Rehman, S. U. (2021). Readiness for Online Learning during COVID-19 pandemic: A survey of Pakistani LIS students. *The Journal of Academic Librarianship*, *47*(3), 102346. https://doi.org/10.1016/j.acalib.2021.102346
Google Scholar   Worldcat   Fulltext

Tania, L., & Saputra, A. (2020). Analysis of students readiness in online learning during the COVID-19 pandemic. *Jurnal Pendidikan MIPA*, *21*(2), 163–169. https://doi.org/10.23960/jpmipa/v21i2.pp163-169
Google Scholar   Worldcat   Fulltext

Torun, E. D. (2019). Online Distance learning in Higher Education: E-Learning Readiness as a Predictor of Academic Achievement. *Open Praxis*, *12*(2), 191. https://doi.org/10.5944/openpraxis.12.2.1092
Google Scholar   Worldcat   Fulltext

Warner, D., Christie, C., & Choy, S. (1998). *The readiness of the VET sector for flexible delivery including online learning: Final draft*.
Google Scholar   Worldcat   Fulltext

Yang, D., Lavonen, J. M., & Niemi, H. (2018). Online Learning Engagement: Critical Factors and Research Evidence from Literature. *Themes in eLearning*, *11*(1), 1–22. https://files.eric.ed.gov/fulltext/EJ1204753.pdf
Google Scholar   Worldcat   Fulltext

Zhao, Y., Llorente, A. M. P., & Gómez, M. C. S. (2021). Digital competence in higher education research: A systematic literature review. *Computers & Education*, *168*, 104212. https://doi.org/10.1016/j.compedu.2021.104212
Google Scholar   Worldcat   Fulltext

Zimmerman, W. A., & Kulikowich, J. M. (2016). Online Learning Self-Efficacy in students with and without online learning experience. *American Journal of Distance Education*, *30*(3), 180–191. https://doi.org/10.1080/08923647.2016.1193801
Google Scholar   Worldcat   Fulltext