

OVERCOMING CHALLENGES OF ONLINE LEARNING: A STUDY ON UNDERGRADUATES' PREPAREDNESS DURING THE COVID-19 PANDEMIC

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Abstract

The COVID-19 pandemic has forced educational institutions to transition to online learning to maintain social distancing. However, concerns have been raised that not all students may be equally prepared or equipped to succeed in this new environment. Therefore, it is essential to comprehend students' readiness for online learning during the pandemic and the challenges and barriers they may encounter to ensure inclusive and accessible education. This study aims to assess the preparedness of University Muhammadiyah Malang undergraduates in Indonesia for online learning during the pandemic. Using an online questionnaire, a quantitative survey approach was used to collect data from a sample of 260 undergraduates who enrolled in Foreign Language for Specific Purposes. The collected data was analyzed using descriptive statistics. Based on the data collected and analyzed, the study found that the students were not fully prepared for online learning during the COVID-19 pandemic. Although the undergraduates were motivated to learn through online learning and felt confident in basic computer and internet functions, they faced challenges in making personalized and successful decisions about their online educational activities during the pandemic. The study also revealed that factors such as access to technology and internet connectivity influenced their preparedness for online learning. These findings highlight the need for targeted support to enhance students' preparedness for online learning and improve their overall learning outcomes.

Keywords: Challenges; COVID-19 pandemic; Online Learning; Students' Readiness

INTRODUCTION

The Corona Virus Disease pandemic that emerged in early 2020 and rapidly spread globally, also known as COVID-19, has unquestionably compelled the worldwide education community to shift from traditional in-person learning to online learning in a short period (Harianingsih & Jusoh, 2022). The virus outbreak has caused a global disruption, resulting in entire

cities being shut down and people being required to stay in their homes to prevent the virus from spreading (Kalmar et al., 2022). Despite this challenging situation, academic institutions worldwide have made great efforts to ensure that the learning process continues uninterrupted (Almusharraf & Khahro, 2020).

According to Lei and Medwell (2021) and Warfvinge et al. (2021), academic institutions have shifted towards e-learning, an online learning method that utilizes various technological tools for interaction between students and teachers. Online learning and e-learning are terms that are often used interchangeably. Both refer to educational methods that use digital technologies to deliver educational content to learners rather than relying on traditional classroom-based instruction. Therefore, the researcher used online learning and e-learning interchangeably to avoid confusion when using the terms. Furthermore, researchers posit that online learning offers several advantages and opportunities for students, such as flexibility, convenience, time-saving, and collaboration beyond physical boundaries (Harianingsih et al., 2021; Harianingsih & Jusoh, 2022). In addition, Stansfield et al. (2004) propose that in online learning, students are empowered with increased autonomy over their learning activities, providing them with the ability to make decisions about various aspects of their coursework, including space and time management.

In Indonesia, all educational institutions, whether public or private, are required to conduct their teaching and learning activities online (Gusty et al., 2020). As a consequence, higher education institutions have adjusted to this digital approach to instruction and learning through the use of effective online learning platforms and video conferencing tools such as Zoom, Google Meet, and Microsoft Teams for organizing virtual classes and uploading lessons, projects, group work, and reading materials (Hiltz & Turoff, 2005). Although online learning was the most suitable response to the pandemic, it has some limitations. According to Chung et al., (2020), it cannot substitute

for the physical interaction, and social engagement students experience in a physical classroom. These limitations may reduce active participation and communication by students, resulting in a bad learning experience.

In addition, technology known as a crucial in facilitating online learning. Information and Communication Technology (ICT) devices including computers, laptops, smartphones, online connectivity, and online learning platforms are important for successful online learning (Twigg, 2003). Students require access to some of these tools to take part effectively in online learning. Besides, students are able to use tools of communication to exchange information and knowledge with each other and their teachers. According to McGreal and Elliott (2008), Online learning provides access to user-friendly tools for both synchronous communication, such as live chat, live audio/video calls, and instant messaging, and asynchronous communication, such as threaded discussions and emailing, that are easily accessible. This computer-mediated environment enables students to express their viewpoints confidently and comfortably. However, to benefit fully from this virtual learning mode, students need to possess a certain level of technical training and expertise. Adequate preparedness is critical for students to gain the most out of this learning mode.

The shift to online learning in Indonesia has sparked a question about whether students are prepared to adapt to this new mode of learning and handle the challenges that come with it. To address this question, a study was conducted to examine the level of online learning readiness (OLR) among undergraduate students in Indonesia, specifically at the University Muhammadiyah Malang (UMM). Numerous studies have been conducted to assess students' OLR across the discipline (Afrianti & Aditia, 2020; Chung et al., 2020; Firat & Bozkurt, 2020; Forson & Vuopala, 2019; Hergüner et al., 2020; Joosten & Cusatis, 2020; Zgheib et al., 2019). However, no previous studies have been conducted within the context of Foreign Language for

Specific Purposes (FLSP) students. As a result, this research aims to examine the readiness of FLSP students toward online learning at the UMM.

Since the emergence of online learning, researchers have been attempting to measure students' readiness to adapt to this mode of education. The notion of online learning readiness was initially introduced by Warner, Christie, and Choy (1998). Their definition entailed three factors: first, students' inclination towards traditional classroom instruction rather than face-to-face learning; second, students' self-assurance in utilizing various forms of technology, the internet, and computer-mediated tools to communicate in online learning environments; and third, students' active participation in self-directed learning (Warner, Christie, & Choy, 1998). In addition, they identified students' preference for classroom instruction, confidence in using technology, and engagement in autonomous learning as essential factors.

Furthermore, McVay developed a 13-item scale in 2000 and 2001 to measure students' readiness for online learning. In a study by Smith, Murphy, and Mahoney in 2003, the McVay questionnaire was used, and according to the researchers, the primary factors that predicted the success of students were their ability to self-manage their learning and their level of comfort with e-learning. (Warner, Christie, & Choy, 1998; McVay, 2000, 2001; Smith, Murphy, & Mahoney, 2003). However, the categories of online learning readiness have been expanded beyond self-regulated learning and the level of comfort with online learning. Researchers have identified additional factors, including technical skills, internet perceptions, and time management skills. Research has shown that students' performance in web-based learning environments is heavily influenced by their proficiency in computer and computer-based tasks. According to Peng, Tsai, and Wu (2006), this ability is critical for success in online education. Furthermore, Tsai and Lin's (2004) research suggests that students' attitudes and behavior towards online learning are linked to their perceptions of the internet. In other words,

students' views of the internet can significantly affect their engagement and performance in online education. Time management skills have also been identified as an essential factor that affects students' OLR (McVay, 2001).

Hung et al. (2010) created a scale to measure students' readiness for online learning called Online Learning Readiness Scale. The scale presented five categories to measure: computer and internet self-efficacy, self-directed learning, learner control, motivation to learn, and online communication self-efficacy. Further details and discussion within each category will be explained below.

Computer and/or Internet Self-efficacy

Self-efficacy is the term used to describe an individual's personal beliefs regarding their capability to perform a particular action or task in a variety of contexts or circumstances. In online learning, assessing students' perceptions and abilities in utilizing ICTs for effective online learning is important. As proposed by Bandura (1977, 1986, 1997), The social cognitive theory serves as the foundation for comprehending self-efficacy beliefs, which are formed through cognitive, motivational, affective, and decision-making processes. Several assessment tools have been created to evaluate computer and internet self-efficacy, including a 10-item instrument by Compeau and Higgins (1995). Studies have shown that computer and internet self-efficacy significantly impact on computer-use outcomes, as well as the emotional responses and actual utilization of computer operators. Additionally, Tsai and Tsai (2003) found that high levels of internet self-efficacy are associated not only with basic skills such as uploading and downloading files, but also with more advanced abilities like troubleshooting and problem-solving technical issues when using the internet. Students who exhibit high levels of internet self-efficacy is more likely to excel and learn effectively in online learning environments than those who have lower levels of internet self-efficacy.

Self-Directed Learning

According to Knowles (1975), self-directed learning (SDL) involves taking the initiative to understand one's learning needs, setting learning goals, identifying necessary resources, choosing appropriate learning strategies, and evaluating learning outcomes. Guglielmino (1977) established the Self-Directed Learning Readiness Scale (SDLRS) in order to promote student autonomy, which assesses learning needs and personality traits. Garrison (1997) created a detailed model of self-directed learning (SDL), which involves empowering students to assume personal responsibility and shared control over the cognitive and contextual processes involved in constructing and verifying valuable and meaningful learning outcomes.

With the fast-paced growth of ICTs, online learning has become increasingly popular. Given the nature of distance learning, it is imperative for students to develop skills in taking initiative, functioning as self-directed learners, and getting themselves ready for the e-learning encounter. Lin and Hsieh (2001) proposed that the effective online learners make independent decisions to meet their learning needs by utilizing existing knowledge and setting learning goals. Developing SDL skills helps students take responsibility for their learning and become more engaged in their learning activities.

Learner Control

Understanding students' readiness for online learning is a critical category to consider. Unlike traditional learning methods, which typically rely on physical textbooks and fixed sources of information, e-learning presents greater opportunities for choice, adaptability, and autonomy. Within an e-learning setting, students are empowered to determine the content, order, and tempo of their learning experience (Reeves, 1993). This ability to direct one's learning experience and process is known as learner control

(Shyu & Brown, 1992, p. 3) and has evolved with the rapid development of information and communication technologies.

According to Merrill's Component Display Theory (1983) and Reigeluth and Stein's Elaboration Theory (1983) suggest that allowing learners to have control over their learning environment is a vital factor in promoting successful learning outcomes, potentially enhancing students' academic performance. Merrill (1983) recommended that learners should have full autonomy over the order of instructional material, enabling them to make informed decisions about their learning and observe the consequences of those decisions in practice. Nevertheless, in online learning situations, there appears to be no instructional sequence (Hung et al., 2010).

Research conducted by Wang and Beasley (2002) initiate that learner control significantly impacted students' task performance in a web-based learning environment. Empowering students the authority to make their own decisions regarding their learning has been found to lead to improved academic performance in online learning environments, compared to those who lack such control. Therefore, it is crucial to consider LC in online learning environments, as it can impact students' learning outcomes.

Learning Motivation

According to Fairchild, Horst, Finney, and Barron (2005), motivation plays a significant role in a student's attitude and behavior toward learning in any educational setting. The concept of active learning consists of two invisible variables: cognition and motivation, as explained by Pintrich and Schunk (2002). Students who are motivated, whether intrinsically or extrinsically, tend to perform better academically than those who lack learning motivation (Ryan & Deci, 2000). Moreover, intrinsic motivation, associated with cognitive, physical, and social development, is associated with superior learning outcomes and improved learning methods (Deci &

Ryan, 1985). Conversely, extrinsic motivation pertains to incentives such as excellent academic marks, praises, and rewards.

Garrison's (1997) model identifies two motivational aspects of learning, namely the perceived value of learning and the anticipated success in learning. Motivation is defined as engaging in an activity voluntarily and without external pressure and is generally seen as reciprocal with responsibility by most researchers. Candy (1991) proposes that maintaining motivation requires students to become engaged learners who possess a keen enthusiasm for acquiring knowledge. Ryan and Deci (2000) assert that students who are motivated exhibit a sense of autonomy in determining their learning paths within an online learning environment. Thus, it is evident that motivation is an essential factor that influences a student's attitude and behavior toward learning, and it plays a crucial role in their academic performance.

Online Communication Self-efficacy

According to Palloff and Pratt (1999), online learners need various computer-mediated tools to complete their educational activities. Research shows that students who are shy or hesitant tend to do better in online learning environments than in traditional ones. Therefore, online learners need to have the chance to interact with peers and instructors through web-based communication tools (McVay, 2000). Successful online learners use these tools to collaborate with others and discuss course materials. Students should take advantage of working with peers when there are connectivity issues. In addition, studies have found that online communication skills are essential for preventing limitations and isolation in online learning (Hung et al., 2010).

The preparedness of students for online learning in the midst of the COVID-19 pandemic

The COVID-19 pandemic has necessitated a transition from the traditional, in-person learning and teaching model to an online, prompting scholars to examine the factors that influence students' readiness for online learning. Accordingly, there has been a surge of publications on this topic in recent times. For example, Naji et al. (2020) discovered that engineering students' ability to adapt to online learning during the COVID-19 pandemic was influenced by several factors. These factors included their level of preparedness and motivation at the beginning of the pandemic, their self-efficacy beliefs, their ability to self-direct their learning, and the support they received for online learning.

Callo and Yazon (2020) discovered that several factors affected the readiness of Polytechnique students for online learning during the pandemic, including familiarity and capability with online learning, preparation, device and connectivity issues, self-efficacy, and prior technology experience. The authors proposed that evaluating the readiness of both educators and learners for online learning could be achieved by assessing their capacity to access and efficiently use technology, as well as their level of self-efficacy in e-learning. Similarly, Shawaqfeh and colleagues (2020) conducted a study on pharmacy students in Saudi Arabia. They found that the students were open to online learning during quarantine but encountered challenges a lack of motivation, feelings of boredom, difficulties in managing information overload, and inadequate digital skills. The study underscored the need to provide computer training to pharmacy students to acquire the necessary skills and tools for online learning.

Kalkan (2020) employed the e-learning readiness scale developed by Yurdugül and Demir (2017) to investigate the preparedness of university students in Turkey for e-learning. The study found that computer skills, internet access, and online communication self-efficacy significantly

influenced students' readiness for e-learning. At the same time, self-directed learning, learning control, and motivation were also essential factors. Allam et al. (2020) carried out a survey to evaluate the preparedness of communication and media studies students for online learning amidst the COVID-19 pandemic. The results indicated that the students had adequate computer and internet literacy. However, they were found to be lacking in motivation to participate in self-directed learning and online learning activities.

Neupane et al. (2020) carried out research to evaluate the level of preparedness of medical students for online learning amidst the COVID-19 pandemic. Their findings indicated that the medical students had the necessary technological resources and proficiency to effectively use computer-mediated tools in their learning during the lockdown period. Kalman et al. (2020) investigated the individual traits that facilitated the success of chemistry students as online learners. The study found that qualities such as adaptability, organizational skills, and self-awareness played a crucial role in the students' success in online learning.

In a study conducted by Lee (2020) on Malaysian students, the researcher explored their readiness for online learning during the pandemic. The study revealed that female students and those pursuing a degree program demonstrated higher levels of comfort with online learning, whereas male students and those enrolled in diploma courses were less comfortable with it. Nonetheless, despite their readiness for online learning during a pandemic, the students generally expressed a preference for onsite classes over online ones. Lee concluded that while the students were generally prepared for online learning during a pandemic, onsite classes remained their preferred mode of learning.

METHOD

For the purpose of this research, a quantitative approach was employed, utilizing a survey technique. In addition, the researcher used a random sampling technique to collect the data from the participants, which were the undergraduates registered in FLSP subject at UMM. The study adopted instrument from Hung et al. (2010) called the Online Learning Readiness Scale (OLRS) which has been refined to reflect the pandemic situation. The instrument consisted of 18 items, characterized into five categories that evaluated students' readiness for online learning: computer/internet self-efficacy (3 items), self-directed learning (5 items), learner control (3 items), motivation for learning (4 items), and online communication self-efficacy (3 items).

The questionnaire was then created on Google Forms and shared through an online link to ensure that it could reach as many people as possible. The link was sent to the lecturers of FLSP and coordinators to distribute it among the students for data collection. After conducting an extensive follow-up, a total of 260 responses were received. The data collected were then imported into Statistical Package for Social Sciences (SPSS) version 26 for the descriptive statistical analyses purpose.

The descriptive statistics used to interpret the dataset from the OLRS instruments provide the analysis, interpretation, and presentation of quantitative data (Creswell & Creswell, 2018). It is used to summarize and describe the important characteristics of a set of data, such as the measures of central tendency (mean, median, and mode) and measures of variability (standard deviation, variance, and range). Descriptive statistics are used to provide a simple summary of the data in a sample or population to make inferences and conclusions based on the data.

RESULT AND DISCUSSION

The aim of this research is to assess the readiness of FLSP students for online learning. The study seeks to investigate the students' level of preparedness and identify potential areas for improvement in their online learning experience. The table. 2 bellow presented the descriptive analysis of FLSP students' responses to OLRS based on Mean and Std. deviation. In order to interpret the data, the researcher used interpretation scale adopted from Aydin and Tasci (2005) which previously used to interpret the student's readiness of e-learning.

Table. 1 The interpretation of students' scale toward OLRS

Scale	Interpretation
>4,2	Prepared (P)
3,4-4,1	Prepared (P)
2,6-3,3	Not prepared (NP)
<2,6	Not prepared (NP)

Source: Aydin and Tasci (2005)

Table 1 depicts the scale interpretation used for evaluating students' preparedness for online learning. The table displays a range of scores from the highest value of >4.2, which is categorized as "prepared," to the lowest score of <2.6, which is interpreted as "not prepared." It is important to note that Aydin and Tasci (2005) clarified that a score of >4.2 (prepared) indicates that the implementation of online learning meets the standard and can be sustained. A prepared score of 3.4-4.1 suggests that there is still room for improvement in implementing online learning. Conversely, a not prepared score of 2.6-3,3 suggests a need for improvement. A score of <2.6, as not prepared, signifies a substantial need for improvement. Additionally, Table 2 illustrates the outcomes of students' responses to the Online Learning Readiness Scale (OLRS) in terms of mean and standard deviation. Moreover, the table provides an interpretation based on Aydin and Tasci's (2005) guidelines.

Table. 2 Students Perceive Online Learning Readiness Scale (OLRS)

No	Statement	N	mean	Std. deviation	interpretation
Computer/Internet self-efficacy (CIS)			3.37	0.303	NP
1	I feel confident in performing the basic functions of Microsoft Office programs (MS Word, MS Excel, and MS PowerPoint).	260	3.56	0.542	
2	I feel confident in my knowledge and skills of how to manage software for online learning.	260	3.08	0.535	
3	I feel confident in using the Internet (Google, Yahoo) to find or gather information for online learning.	260	3.46	1.063	
Self-directed learning (SDL)			3.34	0.130	NP
4	I carry out my own study plan.	260	3.24	0.472	
5	I seek assistance when facing learning problems.	260	3.55	0.710	
6	I manage time well.	260	3.36	0.814	
7	I set up my learning goals.	260	3.16	0.585	
8	I have higher expectations for my learning performance.	260	3.41	0.677	
Learner control (LC)			3.13	0.075	NP
9	I can direct my own learning progress.	260	3.13	0.565	
10	I am not distracted by other online activities when learning online (instant messages, Internet surfing).	260	3.08	0.457	
11	I repeated the online instructional materials on the basis of my needs.	260	3.17	0.602	
Motivation for learning (MFL)			3.52	0.042	P
12	I am open to new ideas.	260	3.53	0.654	
13	I have the motivation to learn.	260	3.51	0.753	
14	I improve from my mistakes.	260	3.50	0.700	
15	I like to share my ideas with others.	260	3.53	0.721	
Online communication self-efficacy (OCS)			3.17	0.014	NP
16	I feel confident in using online tools (email, discussion) to	260	3.19	0.575	

	effectively communicate with others.				
17	I feel confident in expressing myself (emotions and humor) through text.	260	3.14	0.573	
18	I feel confident in posting questions in online discussions.	260	3.17	0.551	

Sources: Hung et al. (2010) <https://doi.org/10.1016/j.compedu.2010.05.004>

The study administered 18 items to participants to assess their preparedness of OLR during COVID-19, and the mean and standard deviation of each item are reported in Table 2. Based on the interpretation scale, the result reported that among five categories, only one of the five the category (motivation for learning) was rated as Prepared, and the remaining four categories was rated as not prepared by the students.

The results also indicated that the highest-ranked category of OLR for FLSP students during COVID-19 was motivation for learning with a mean score ($M=3.52$, $SD=0.042$). This data indicates that the participants in the study value learning and are motivated. In addition, the mean score of questions items no.12 "*I am open to new ideas*" ($M=3.53$, $SD=0.654$) for this category is higher than the mean scores for the other items. This suggests that the participants in the study have a relatively high level of motivation for learning, as indicated by their responses to statements such as "*I have the motivation to learn*" and "*I am open to new ideas*." It also suggests that they are willing to learn from their mistakes, as indicated by their responses to the statement "*I improve from my mistakes*."

Second highest rated category was a Computer/Internet self-efficacy with mean ($M= 3.37$, $SD=0.303$) followed by Self-directed learning category with mean ($M=3.34$, $SD=0.130$). The highest mean score within these categories was for the statement "*I feel confident in performing the basic functions of Microsoft Office programs (MS Word, MS Excel, and MS PowerPoint)*." ($M=3.56$, $SD=0.542$). This indicates that the participants are confident in their ability to use common software programs, which could be

important for their success in academic or professional settings. Followed by "*I seek assistance when facing learning problems.*" ($M=3.55$, $SD=0.710$), which indicated that students have the sense of awareness of their ability and willingness to seek for help to solve the problems.

However, the mean score for the statement "*I feel confident in my knowledge and skills of how to manage software for online learning*" ($M=3.08$, $SD=0.535$) was lower than the other two statements in this category, indicating that the participants may be less confident in their ability to use software specifically designed for online learning. This could be an area where educators or trainers could provide additional support to help participants feel more confident and competent in their online learning skills especially when using specific software or tools.

Nonetheless, FLSP students scored the lowest mean score in the category of learner control among all the OLR categories with a mean score ($M= 3.13$, $SD=0.075$). This suggests that, on average, participants felt they had limited control over their own learning progress and were somewhat easily distracted by other online activities. Specifically, the responses to items no. 9 to 11, suggest that participants felt they were not fully able to direct their own learning progress, were sometimes distracted by other online activities, and may not have always repeated instructional materials based on their own needs.

The general findings of this research discovered that the FLSP students of UMM were not completely prepared to face the online learning during pandemic COVID-19. The students showed enthusiasm to acquire knowledge using online learning, had an open-minded attitude towards new ideas, acknowledged and learned from their mistakes, and were eager to ask for assistance when confronted with difficulties. These results align with previous studies by Saadé et al. (2007), Hung et al. (2010), and Hsu et al. (2019), which emphasized the crucial role of motivation in online education. Furthermore, the findings discovered that FLSP students possessed a

relatively good level in performing basic computer operations using MS Office software (such as MS Word, MS Excel, MS PowerPoint, etc.) and had a good level of self-confidence in using these programs.

The findings also suggested that the students perceived themselves as having limited control over their learning environments and their skill of organizing their time effectively. This finding matches those of previous studies by Hung et al. and Naji et al., (2010) which also conveyed that student control was not highly rated compared to other categories of online learning. One possible explanation for this difference is that online learning presents more opportunities for disruptions, such as students engaging in non-academic activities like playing games or chatting with friends, which is less common in traditional face-to-face learning. To succeed in online learning, students must prioritize time management. This involves dedicating sufficient time to their courses, actively participating in group discussions through message posting, and submitting their assignments on time.

In the same vein, study conducted by Wang et al. (2020) found that students experienced various challenges in the transition to online learning, including technical issues, lack of support from teachers, and difficulty with time management. The study showed that students had a lower sense of control over their learning environment and time management. In line with this finding, the study by Setiaji and Dinata (2020) in Indonesia found that while students have a good understanding of how to use technology, they may lack problem-solving skills related to technology. The study also revealed that most students are new to e-learning during the Covid-19 pandemic and are not yet familiar with the procedures and systems. Additionally, each course with a different lecturer has a different e-learning system and procedures, which adds to the challenge. The lack of adequate internet connectivity and quota is a significant challenge for students trying to engage in e-learning, as it may hinder their access to course content and negatively impact their learning outcomes.

Previous studies by Roper (2007) and Wang et al. (2018) have emphasized the significance of time management in online learning. A student's inability to manage or regulate their surroundings and conditions that affect their learning can lead to poor academic performance. To address this issue, Hung and Yuen (2010) as well as Wang and Beasley (2002) have recommended that students who have the ability to regulate and manage their learning environment tend to perform better academically in online-based education compared to those who lack control over their learning setting. Sultan (2020) further explains, due to the ongoing second wave of COVID-19, there is uncertainty about when educational institutions will reopen. Consequently, numerous countries have transitioned towards adopting e-learning. In this regard, learners need to take responsibility for their own learning, organize their time efficiently, and regulate their surroundings to ensure the efficient functioning of the educational system. When students have control over their learning environment, they become capable of making choices regarding their education, selecting customized media, managing their time, and regulating their educational content.

CONCLUSION

From this finding, we can conclude that the participants in the study were not fully prepared for online learning. Nevertheless, they have a relatively high level of motivation for learning. Despite facing challenges in adapting to online learning, students showed motivation to learn in this online learning environment. This highlights the resilience and determination of students to pursue their academic goals even in the face of adversity.

Furthermore, the data also shows that the participants have a relatively high level of confidence in their basic computer and internet skills. However, the findings indicates that students may require additional support to feel confident in their online learning skills specifically, which may include learning how to use software designed for online learning, managing their

online learning progress, and avoiding online distractions. Besides, the data indicates that participants have limited control over their own learning progress and may be easily distracted by other online activities. This suggests that online educators and trainers should focus on providing opportunities for learners to direct their own learning progress and minimize distractions to improve the effectiveness of online learning experiences.

Overall, this data highlights both strengths and areas for improvement in online learning experiences during the COVID-19 pandemic. The COVID-19 pandemic presented unique challenges for FLSP students as they transitioned to online learning. While students experienced difficulty in personalizing their online educational experience, their motivation to learn remained steadfast. This underscores the importance of providing students with the tools and resources necessary to succeed in an online learning environment.

The contribution of these findings is twofold. Firstly, it sheds light on the experiences of FLSP students during the COVID-19 pandemic and the challenges they faced during the transition to online learning. This information can inform educational institutions and policymakers on how to best support students in similar situations in the future. Secondly, it underscores the importance of providing students with the necessary tools and resources to succeed in an online learning environment. In order to ensure students' readiness for online learning during the COVID-19 pandemic, it may be necessary for educators and institutions to provide additional support to help students develop the skills and confidence needed to succeed in online learning environments. This could include training sessions, online tutorials, or other resources to help students improve their online learning skills and manage their learning progress effectively. Additionally, educators could consider providing support to help students avoid online distractions and stay focused on their learning goals.

REFEERENCES

Afrianti, N., & Aditia, R. (2020, October). Online learning readiness in facing the covid-19 pandemic at MTS manunggal Sagara Ilmi, Deli Serdang, Indonesia. *Journal of International Conference Proceedings*, 3(2), 59-66.

Allam, S. N. S., Hassan, M. S., Sultan, R., Mohideen, A. F. R., & Kamal, R. M. (2020). Online distance learning readiness during covid-19 outbreak among undergraduate students. *Journal of Academic Research in Business and Social Sciences*, 10(5), 642-657.

Alias, N., & Abd Razak, A. (2021). Challenges Faced by Students During Online Learning in Malaysia During the COVID-19 Pandemic. *Journal of Educational Technology & Society*, 24(1), 118-129.

Almusharraf, N. M., & Khahro, S. H. (2020). Students' Satisfaction with Online Learning Experiences during the COVID-19 Pandemic. *International Journal of Emerging Technologies in Learning*, 15(21), 246-267.
<https://doi.org/10.3991/ijet.v15i21.15647>.

Aydin, C. H., & Tasci, D. (2005). Measuring readinesss for e-learning: Reflection from emerging country. *Educational Technology and Society Journal*, 8(4), 244-257.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.

Bandura, A. (1986). Social foundations of thought and action. *Englewood Cliffs, NJ*, 1986(23-28).

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: W.H. Freeman.

Candy, P. C. (1991). *Self-Direction for Lifelong Learning. A Comprehensive Guide to Theory and Practice*. Jossey-Bass, 350 Sansome Street, San Francisco, CA 94104-1310.

Callo, E. C., & Yazon, A. D. (2020). Exploring the factors influencing the readiness of faculty and students on online teaching and learning as an

alternative delivery mode for the new normal. *Universal Journal of Educational Research*, 8(8), 3509–3518.

Chizmar, J. F., & Walbert, M. S. (1999). Web-based learning environments guided by principles of good teaching practice. *Journal of Economic Education*, 30(3), 248–264.

Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online learning readiness among university students in Malaysia amidst COVID-19. *Asian Journal of University Education*, 16(2), 46–58.

Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly*, 19(2), 189–211.

Creswell, W. J., & Creswell, J. D. (2018). Research Design: Qualitative, Quantitative and Mixed Methods Approaches. *Journal of Chemical Information and Modeling*. SAGE Publications, Inc.

Eastin, M. S., & LaRose, R. (2000). Internet self-efficacy and the psychology of the digital divide. *Journal of Computer-Mediated Communication*, 6(1). Retrieved from <https://academic.oup.com/jcmc/article/6/1/JCMC611/4584219>.

Fairchild, A. J., Jeanne Horst, S., Finney, S. J., & Barron, K. E. (2005). Evaluating existing and new validity evidence for the academic motivation scale. *Contemporary Educational Psychology*, 30(3), 331–358.

Firat, M., & Bozkurt, A. (2020). Variables affecting online learning readiness in an open and distance learning university. *Educational Media International*, 57(2), 112–127.

Forson, I. K., & Vuopala, E. (2019). Online learning readiness: Perspective of students enrolled in distance education in Ghana. *The Online Journal of Distance Education and e-Learning*, 7(4), 277–294.

Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, 48(1), 18–33.

Guglielmino, L. M. (1977). *Development of the self-directed learning readiness scale*. *Unpublished doctoral dissertation*. Athens, GA: The University of Georgia.

Gusty, S., Nurmiati, N., Muliana, M., Sulaiman, O. K., Ginantra, N. L. W. S. R., Manuhutu, M. A., ... & Warella, S. Y. (2020). *Belajar mandiri: Pembelajaran daring di tengah pandemi Covid-19*. Yayasan Kita Menulis.

Hair, J. F., Babin, B. J., Anderson, R. E., & Black, W. C. (2018). Multivariate data analysis (8th ed.). Boston: Cengage.

Harianingsih, I., Jusoh, Z., & Nur, R. M. (2021). From Face-to-Face to Digital Learning; Seen from EFL Student's Lenses Enrolled in Online Group Work. *International Journal of English and Applied Linguistics (IJEAL)*, 1(3), 258-267.

Harianingsih, I., & Jusoh, Z. (2022). A Review of Studies on Cooperative Learning in Language Classroom seen from Students' attitudes. *International Journal of English and Applied Linguistics (IJEAL)*, 2(1), 62-74.

Harianingsih, I., & Jusoh, Z. (2022). Perceptions of EFL Students in Different Proficiency Levels Toward Group Work Experiences During Online Learning. *International Journal of English and Applied Linguistics (IJEAL)*, 2(3), 424-430.

Hergüner, G., Son, S. B., Son, S. H., & Donmez, " A. (2020). The effect of online learning attitudes of university students on their online learning readiness. *The Turkish Online Journal of Educational Technology*, 19(4), 102-110.

Hiltz, S. R., & Turoff, M. (2005). Education goes digital: The evolution of online learning and the revolution in higher education. *Communications of the ACM*, 48(10), 59-64.

Hung, M. L., Chou, C., Chen, C. H., & Own, Z. Y. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers & Education*, 55(3), 1080-1090.

Hung, H. T., & Yuen, S. C. Y. (2010). Educational use of social networking technology in higher education. *Teaching in Higher Education*, 15(6), 703-714.

Joosten, T., & Cusatis, R. (2020). Online learning readiness. *American Journal of Distance Education*, 34(3), 1-14.

Kalkan, N. (2020). Investigation of e-learning readiness levels of university students studying in different departments. *African Educational Research Journal*, 8(3), 533-539.

Kalman, R., Esparza, M. M., & Weston, C. (2020). Student views of the online learning process during the covid-19 pandemic: A comparison of upper-level and entry-level undergraduate perspectives. *Journal of Chemical Education*, 97(9), 3353-3357.

Kalmar, E., Aarts, T., Bosman, E., Ford, C., de Kluijver, L., Beets, J., Veldkamp, L., Timmers, P., Besseling, D., Koopman, J., Fan, C., Berrevoets, E., Trotsenburg, M., Maton, L., van Remundt, J., Sari, E., Omar, L. W., Beinema, E., Winkel, R., & van der Sanden, M. (2022). The COVID-19 paradox of online collaborative education: when you cannot physically meet, you need more social interactions. *Helijon*, 8(1), e08823.
<https://doi.org/10.1016/j.heliyon.2022.e08823>

Knowles, M. S. (1975). Self-directed learning: A guide for learners and teachers. New York: Association Press.

Lee, S. (2020, 09 October). Sabah student stays overnight in tree to get better Internet connection for online university exams. Available at: <https://www.thestar.com.my/news/nation/2020/06/16/sabah-university-student-stays-overnight-in-tree-to-get-better-internet-connection-for-online-exams>.

Lei, M., & Medwell, J. (2021). Impact of the COVID-19 pandemic on student teachers: how the shift to online collaborative learning affects student teachers' learning and future teaching in a Chinese context. *Asia Pacific Education Review*, 22(2), 169-179.

Lin, B., & Hsieh, C. T. (2001). Web-based teaching and learner control: A research review. *Computers & Education*, 37(4), 377–386.

McGreal, R., & Elliott, M. (2008). Technologies of online learning (e-learning). *Theory and practice of online learning*, 115.

McVay, M. (2000). Developing a web-based distance student orientation to enhance student success in an online bachelor's degree completion program. *Unpublished practicum report presented to the Ed.D. Program. Florida: Nova Southeastern University*.

McVay, M. (2001). How to be a successful distance learning student: Learning on the internet. New York: Prentice Hall.

Merrill, M. D. (1983). Component display theory. *Instructional-design theories and models: An overview of their current status*, 1, 282-333.

Naji, K. K., Du, X., Tarlochan, F., Ebead, U., Hasan, M. A., & Al-Ali, A. K. (2020). Engineering students' readiness to transition to emergency online learning in response to COVID-19: Case of Qatar. *EURASIA Journal of Mathematics, Science and Technology Education*, 16(10), 1–17.

Neupane, H. C., Sharma, K., & Joshi, A. (2020). Readiness for the online classes during covid-19 pandemic among students of Chitwan medical college. *Journal of Nepal Health Research Council*, 18(2), 316–319.

Palloff, R. M., & Pratt, K. (1999). *Building Learning Communities in Cyberspace: Effective Strategies for the Online Classroom. Jossey-Bass Higher and Adult Education Series*. Jossey-Bass Publishers, 350 Sansome Street, San Francisco, CA 94104.

Peng, H., Tsai, C. C., & Wu, Y. T. (2006). University students' self-efficacy and their attitudes toward the internet: The role of students' perceptions of the internet. *Educational Studies*, 32(1), 73–86.

Pintrich, P. R., & Schunk, D. H. (2002). *Motivation in education: Theory, research, and applications*. Prentice Hall.

Poole, D. M. (2000). Student participation in a discussion-oriented online course: A case study. *Journal of Research on Computing in Education*, 33(2), 162–177.

Reeves, T. C. (1993). Pseudoscience in computer-based instruction: The case of lecturer control research. *Journal of Computer-based Instruction*, 20(2), 39–46.

Roper, A. R. (2007). How students develop online learning skills. *Educause Quarterly*, 30(1), 62–64.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54–67.

Setiaji, B., & Dinata, P. A. C. (2020). Analisis kesiapan mahasiswa jurusan pendidikan fisika menggunakan e-learning dalam situasi pandemi Covid-19. *Jurnal Inovasi Pendidikan IPA*, 6(1), 59-70.

Shawaqfeh, M. S., Al Bekairy, A. M., Al-Azayzih, A., Alkatheri, A. A., Qandil, A. M., Obaidat, A. A., ... Mufligh, S. M. (2020). Pharmacy students perceptions of their distance online learning experience during the COVID-19 pandemic: A crosssectional survey study. *Journal of Medical Education and Curricular Development*, 7, 1–9.

Shyu, H. Y., & Brown, S. W. (1992). Learner control versus program control in interactive videodisc instruction: What are the effects in procedural learning?. *International Journal of Instructional Media*, 19(2), 85–95.

Smith, P. J., Murphy, K. L., & Mahoney, S. E. (2003). Towards identifying factors underlying readiness for online learning: An exploratory study. *Distance Education*, 24(1), 57–67.

Stansfield, M., McLellan, E., & Connolly, T. (2004). Enhancing student performance in online learning and traditional face-to-face class delivery. *Journal of Information Technology Education: Research*, 3(1), 173–188.

Sugiarti, Y., Purwanto, A., & Pramono, R. (2020). University Students' Challenges During Online Learning Amid COVID-19 Pandemic.

International Journal of Educational Research Open, 1(2), 100007.
<https://doi.org/10.1016/j.ijedro.2020.100007>

Sultan, F. (2020 October 29). COVID-19 data from last 24h. Cases 908. Positivity percentage >3%. Sixteen deaths. These numbers tell an unmistakable story [Tweet]. Twitter.
https://twitter.com/fslsltn/status/1321816110233198592?ref_src=twsr
c%5Etfw%7Ctwcamp%5Eembeddedtimeline%7Ctwterm%5Eprofile%3A
fslsltn%7Ctwcon%5Etimelinechrome&ref_url=http%3A%2F%2Fcovid.go
v.pk%2F.

Tsai, C. C., & Lin, C. C. (2004). Taiwanese adolescents' perceptions and attitudes regarding the internet: *Exploring gender differences. Adolescence*, 39(156), 725–734.

Tsai, C. L., Cho, M. H., Marra, R., & Shen, D. (2020). The Self-Efficacy Questionnaire for Online Learning (SeQoL). *Distance Education*, 1–18.

Twigg, C. A. (2003). Models for online learning. *Educause review*, 38, 28-38.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International journal of environmental research and public health*, 17(5), 1729.

Wang, P., Wu, P., Wang, J., Chi, H. L., & Wang, X. (2018). A critical review of the use of virtual reality in construction engineering education and training. *International Journal of Environmental Research and Public Health*, 15(6), 1204.

Wang, L.-C. C., & Beasley, W. (2002). Effects of learner control and hypermedia preference on cyber-students' performance in a web-based learning environment. *Journal of Educational Multimedia and Hypermedia*, 11(1), 71–91.

Warfvinge, P., Löfgreen, J., Andersson, K., Roxå, T., & Åkerman, C. (2021). The rapid transition from campus to online teaching—how are students'

perception of learning experiences affected?. *European Journal of Engineering Education*, 0(0), 1-19.

Warner, D., Christie, G., & Choy, S. (1998). Readiness of VET clients for flexible delivery including on-line learning. Brisbane: Australian National Training Authority.

Yurdugül, H., & Demir, O. (2017). Öğretmen yetişiren lisans programlarındaki öğretmen adaylarının e-öğretimmeye hazır bulunusluklarının incelenmesi: Hacettepe üniversitesi örnekleri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 32(4), 896-915.

Zgheib, G., AlDaia, R., Serhan, M., & Melki, A. (2019, November). Factors influencing students' online learning readiness in a middle eastern higher education institution: Implications for online course design. In *E-learn: World conference on E-learning in corporate, government, healthcare, and higher education* (pp. 1186-1198). Association for the Advancement of Computing in Education (AACE).