

ONLINE LEARNING SATISFACTION AND READINESS AMONG UNDERGRADUATES: INFLUENCING FACTORS AND GENDER DIFFERENCES

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Abstract: This study aimed to investigate the relationships among three factors (instructional support, assessment, and skills development) and satisfaction, as well as readiness, in online learning, with gender differences were also considered. The study surveyed undergraduate students in the southern universities in Vietnam (n = 484) using the Vietnamese version of the Student Outcomes Survey questionnaire (Fieger, 2012). The results revealed that students' online learning satisfaction and readiness were moderately related to instructional support, assessment, and skills development. Two variables (instructional support and skills development) positively explained learners' online learning satisfaction while assessment and skills development significantly predicted online learning readiness. Besides, an independent samples t-test showed that males were satisfied with their online learning and were willing to participate in this form of learning when the pandemic would be over. Females had the same result as males about online learning during the pandemic but thought it inappropriate in normal situations. These findings demonstrated the need for a combination of instructional support, assessment, and skills development to enhance learners' online learning satisfaction and readiness. The study contributes to the educational field regarding awareness of learners about online learning. The implications and limitations of these findings were discussed.

Key words: satisfaction; readiness; student; online learning; gender.

1. Introduction

Technology, its adoption, and facility difficulties appear to be of great importance to the researchers who emphasize the integration of digital technology into on- or off-campus contexts (Jung & Yoo, 2014). As technology advances, so does the delivery of online knowledge and, as a result, the widespread of online learning (Singh & Thurman, 2019). Learning experiences in synchronous or asynchronous settings using various devices (e.g., mobile phones, computers, etc.) with an

internet connection is called online learning (Dhawan, 2020). Many studies have been carried out to explore aspects that contribute to the success or failure of online learning (Bolliger & Halupa, 2018; Shelton et al., 2017; Yang et al., 2017) or determinants influencing learners' satisfaction in an online learning environment (Dziuban et al., 2015; Weidlich & Bastiaens, 2018). Papers have also identified some pros and cons of online learning compared to traditional learning settings, particularly in some special situations (Dhawan, 2020).

The COVID-19 epidemic has caused widespread school closures, seriously affecting the number of students worldwide. The 2021-2022 school year coincided with the fourth wave of COVID-19, which occurred in late April. The pandemic's consequences resulted in a variety of class interruptions, forcing students to switch to online learning during the previous two years. Ministry of Education and Training (MOET)

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of Vietnam, for many reasons, had provided more room for e-learning as the pandemic was becoming more and more serious. Due to the indefinite closure of schools and colleges, both institutions and students experimented with strategies to complete their mandated syllabi within the academic calendar. Changing from face-to-face learning to online classes was the only possible solution during that period (Dhawan, 2020). These efforts have undoubtedly caused some discomfort, but they have also sparked fresh examples of educational innovation, including digital input.

The quality of teaching, learning, and research at Vietnamese higher education institutions is expected to increase (Nguyen et al., 2021). Despite the explosive growth of online learning in higher education, it has also raised some pressing concerns regarding students' satisfaction and readiness for online courses and programs. However, there is minimal discussion of the relationships among multiple aspects (e.g., instructional support, assessment, skills development, and course satisfaction, online learning readiness). This study aims to investigate factors which impact on online learning satisfaction and readiness, focusing on student perspectives. While there are other aspects of the learning process to consider, such as learning achievement and teacher viewpoints, students' satisfaction and readiness in academic system must be examined since it demonstrates how efficient and effective the institution is in providing services (Shen et al., 2013; Veletsianos et al., 2021).

Factors Impacting on Online Learning Satisfaction and Readiness

Online Learning Satisfaction

The pandemic outbreak is a challenge, but also an opportunity. This crisis will usher in a new era for online learning, allowing individuals to consider the positive aspects of online learning, such as instructional support, assessment, and skills development via such a virtual environment. These factors may lead to learners' satisfaction (Fieger, 2012) and help evaluate their readiness. A measurement of the gap between user's expectations for a certain information system was defined as users' satisfaction with online learning (Remenyi & Money, 1991). Online learning is described as a tool to make the teaching-learning process more student-centered, inventive, and adaptable (Dhawan, 2020).

Students enrolling in online classes because their quality perceptions is based on beliefs about the online learning's potential—in terms of both learning achievement and satisfaction/enjoyment—as well as beliefs about probability that classes meet their expectations (Van Wart et al., 2020). Online learning satisfaction is a multidimensional construct that includes various factors (Wei & Chou, 2020). Literature shows that there are many aspects affecting students' online learning satisfaction, such as personal factors, teacher quality, assessment, and learning experience (Alvarez et al., 2009; Aslan, 2021; Fieger, 2012; Potu et al., 2021). Student expectations are met and favorable online learning system views are reached resulting in online learning satisfaction (Al-Nasa'h et al., 2021). Satisfied students seem to be more interested, motivated, receptive, and learn better (Dziuban et al., 2015). Learning satisfaction was related to self-efficacy to complete an online course (Shen et al., 2013) or explicit guidance on learning requirements (Palmer & Holt, 2009). Obviously, satisfaction creates a positive classroom atmosphere but also inspires students actively participate in learning activities.

Online Learning Readiness

Apart from online learning satisfaction, since online learning is becoming more and more popular in educational institutions, instructors and students have been continuing to maintain a re-examination on students' readiness (Hung et al., 2010). Readiness is a factor that should be considered when developing an organization's online education plan (Altinay et al., 2021) or ensuring a successful learning process and educational outcomes (Dangol & Shrestha, 2019) for learners. Researchers have made tools to measure how ready students are for online learning in order to put readiness definition into practice (Hung et al., 2010; Wei & Chou, 2020).

Online learning readiness refers to students' willingness and ability to study independently, utilizing technological communication to gain necessary knowledge (Hung et al., 2010). When a person is willing to do something naturally, they can learn more effectively and with greater enjoyment and vice versa, if they do not try then all their efforts will be in vain (Dangol & Shrestha, 2019). That says, students' online learning readiness refers to the physical, mental, and emotional state with which a student is prepared to learn.

Learning readiness is a requirement for people to be able to achieve their educational goals (Gandhi, 2010).

Students' educational achievement is affected by their lack of learning readiness (Dangol & Shrestha, 2019). It also reduces the effectiveness and efficiency of classroom instruction, as well as squanders substantial government investments in education. Existing research believes the link between learning readiness and academic achievement is relatively modest (Dangol & Shrestha, 2019).

Factors Impacting on Online Learning Satisfaction and Readiness

According to the literature, some factors can be considered to influence learners' satisfaction and readiness for online learning. Among them, we next investigated three factors, including instructional support, assessment, and skills development in this study.

Instructional support

Students' views of the instructor's (e.g., teacher's, lecturer's) input, rehearsal, feedback, and evaluation strategies are referred to instructional support (Van Wart et al., 2020). According to existing studies, instructors and students' interaction has a significant influence on students' opinions about online learning (Demuyakor, 2020; Van Wart et al., 2020).

When new teaching techniques and technologies are used, student perspective is extremely important (Arthur, 2009; Van Wart et al., 2020). Students' perspectives provide valuable firsthand information about their experiences and goals (Dawson et al., 2018). Hence, an effective online class depends on well-structured course content (Sun & Chen, 2016), feedback, and clear instructions (Gilbert, 2015).

Instructors should provide support to their students via online classroom (Chen & Jang, 2010). Instructor feedback is individualized and prompt, and instructor communication should be clear, focused, and encouraging (Van Wart et al., 2020). Instructors should give informative feedback that encourages students to enhance knowledge by providing progress-enabling scaffolding, or should respond to students' questions and comments, and provide chances for students to collaborate with peers to meet their learning demands (Wang et al., 2019). On campus, it is equally critical to

provide high-quality teaching and learning settings (Nguyen et al., 2021). Scholars believed that because students and instructors interact indirectly, there are some disadvantages to the communication among students and instructors in online learning (Smart & Cappel, 2006). Students admitted their interactions with instructor decreased during online learning but were satisfied with the content delivered (Ilgaz & Adanir, 2020).

Assessment

It is essential to create an online learning environment that is based on learners' expectations and thorough feedback (Altinay et al., 2021). Assessment is an important part of the teaching and learning process. A well-organized evaluation system may boost student performance while also instilling favorable feelings about the system and process (Ilgaz & Adanir, 2020). Additionally, implementing evaluation to improve the learning experience and to allow students to evaluate their own learning are important for improving learning and skills. Students' understanding was usually used to identify academic performance. Students' assessments of learning, grades, and assignment quality were used to assess learning outcomes (Hrastinski, 2009) as learning outcomes, via grade, have impact on online participation (Morris et al., 2005). (Potu et al., 2021) stated that providing students with feedback on their efforts is crucial to enhance their satisfaction with online learning while using online learning as a safe solution for the COVID-19 epidemic. In their research, the finding also revealed that the mean examination scores were relatively higher in online class than in face-to-face class (Potu et al., 2021). Although assessment is one of essential components of the learning process, few studies have investigated learners' academic achievement in online exams (Ilgaz & Adanir, 2020).

Skills development

To provide a form of learning and skill development, the digital transformation in educational practice requires an international and effective approach (Altinay et al., 2021). Studies showed that technology-supported environments have had a similar effect on problem-solving skills, communication skills, and interaction skills as those implemented in actual classroom environments. Studies have also shown that collaborative problem-solving skills are more beneficial than

individual practices (Uribe et al., 2003) while others argued that online classes are an effective approach to develop students' problem-solving skills (Aslan, 2021). However, it was said that interaction is one of the limitations of distance education, which was widely used throughout the pandemic (Cheng & Chau, 2015; Holmberg, 2005). Researcher also indicated that online classes, which have been frequently used since the COVID-19 pandemic, are a good option for the development of students' skills (Aslan, 2021).

Online learning in higher education and gender differences

The literature has highlighted different models which provide the basic framework to understand students' perceptions regarding online education. According to Veletsianos et al., 2021, although all students have equal access to resources, the most effective learners are those who place responsibility on themselves. The goal of online learning is to create educational opportunities that leverage the platform's features to help students learn more effectively. This gives students flexibility and convenience by allowing them to mix and match different times and location for studying. However, they do require evaluation of these systems to ensure successful delivery, effective usage, and beneficial consequences for learners. Because of limited technological skills, women are at a disadvantage when taking online courses (Price, 2006). Females, on the other hand, value on the pastoral aspect of tutoring and participating in online classes in different ways than males, which might be related to their stronger desire to be intellectually engagement (Price, 2006). For example, female students who are more likely to study at specified times and location received higher overall grades (Veletsianos et al., 2021). Study of Veletsianos et al., 2021 also revealed that women with low hourly consistency were more likely to earn a completion certificate. Put it in another way, women may need and benefit more from flexible course designs, including online courses, than men.

Historically, women have had more responsibilities in housework, child care, and elderly care than males (Horne et al., 2018). This might also imply that if online education is more temporally rigorous and does not allow for daily schedule flexibility, women may be more disadvantaged than males (Veletsianos et al., 2021). This

finding revealed that gender is an essential aspect to consider because addressing gender disparities in online learning may help increase opportunities of their enrollment and completion. It is vital to explore whether gender inequalities exist in the use of online learning in this era of rapid deployment, as well as to analyze many subtleties of these differences. Thus, this study aims to contribute to the current literature by clarifying differences in online learning for each gender. Furthermore, if gender discrepancies exist, integration regulations or policies can be required to bridge the gap.

2. Overview of current study

Previous research has not explored how instructional support, assessment, and skills development influence learners' satisfaction during their online learning or the relation among the three factors to readiness. In other words, to the best of our knowledge, little has examined the distinctive effects of these factors on satisfaction and readiness in online learning.

Besides, prior research showed evidence that satisfaction and readiness of such a learning method may vary by individual learner characteristics, such as gender.

In sum, the three hypotheses of this study include:

Hypothesis 1: Instructional support, assessment, and skills development have correlation with online learning satisfaction, as well as students' online learning readiness during the post-pandemic.

Hypothesis 2: Instructional support, assessment, and skills development predict online learning satisfaction and readiness.

Hypothesis 2.1: *Instructional support, assessment, and skills development predict online learning satisfaction.*

Hypothesis 2.2: *Instructional support, assessment, and skills development predict online learning readiness.*

Hypothesis 3: There is gender differences in online learning satisfaction and readiness.

3. Method

Participants and Procedure

Participants consisted of 484 undergraduate Vietnamese students (49.38% female) who came from universities in southern Vietnam. They were asked to

complete an anonymous questionnaire which was revised from the Student Outcomes survey (Fieger, 2012). The questionnaire, which was completed online, is detailed in the following section. Participants were informed the purpose of the study. All the respondents volunteered to take part in the survey and could stop answering questions or skip at any time.

The data were collected from universities in the South of Vietnam. An online survey was used to address participants' opinions. Participants voluntarily participated in the survey study. After reading the informed consent and instruction regarding the study, it took approximately 15 minutes for participants to complete the survey. The American Psychological Association's research ethics standards were implemented for this study.

Measures

The used questionnaire, which was the Student Outcomes survey (Fieger, 2012), was revised and translated into Vietnamese. Five language lecturers were asked independently to check the translation. The pilot test was carried out before the official test. Students needed to answer 21 items in total, except demographic information. All items were rated on a 5-point Likert-type scale with alternatives ranging from 1 (strongly disagree) to 5 (strongly agree). The demographic characteristics of the respondents' information (e.g., age, gender) were included.

The questionnaire on three factors was expected to affect learners' satisfaction and readiness of online learning, including instructional support, assessment, and skills development (8 items). The instructional support variable included 6 items which related to learning materials, interaction between learners and instructors,

and feedback (e.g., "My instructors communicated the subject content effectively"). The assessment variable included 6 items which related to knowledge, time, form, and feedback (e.g., "I knew how I was going to be assessed"). The developing skill variable included 8 items which related to problem-solving skills and written communication (e.g., "My training developed my problem-solving skills"). The Cronbach's alpha coefficients of the three factors were .92, .86, and .95, respectively.

Online learning satisfaction and readiness were measured using a single item, including "I was satisfied with this online class during the outbreak of the pandemic" and "I am ready for online learning after the pandemic".

Data analysis

There was no missing data or outliers. SPSS version 24 was used to analyze data. Multi-regression analyses were also performed, in which instructional support, assessment, and skills development were entered as predictors either of students' online learning satisfaction or their readiness. The continuous variables were normally distributed, and no problems with multicollinearity or outliers were detected in the whole sample.

The independent samples t-test was applied to examine the differences between males and females in their learning satisfaction during the pandemic and readiness for online learning after the pandemic.

Results

The descriptive statistics of variables are illustrated in Table 1.

Variable	<i>M</i>	<i>SD</i>	Range	<i>N</i>	Percentage (%)
Instructional support	4.55	0.59	1.00-5.00	484	100%
Assessment	4.34	0.75	1.00-5.00	314	64.88%*
Skills development	4.14	0.83	1.00-5.00	484	100%
Satisfaction	4.66	0.64	1.00-5.00	484	100%
Readiness	3.58	1.48	1.00-5.00	484	100%
Male (<i>N</i> = 245)					
Satisfaction	4.70	0.60	1.00-5.00	245	100%
Readiness	3.76	1.44	1.00-5.00	245	100%
Female (<i>N</i> = 239)					
Satisfaction	4.63	0.69	1.00-5.00	245	100%

Readiness	3.39	1.50	1.00-5.00	245	100%
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Note. *M* = mean. *SD* = standard deviations. *N* = participant. *35.12% of students reported that they did not take any assessments during their online learning.

The Pearson correlations (Table 2) revealed that students’s satisfaction highly associated with instructional support ($r = .56, p < .001$), assessment ($r = .53, p < .001$), and skills development ($r = .58, p < .001$).

Similarly, students’ readiness for online learning after pandemic had significant correlation with instructional support ($r = .21, p < .001$), assessment ($r = .26, p < .001$), and skills development ($r = .32, p < .001$). Therefore, hypothesis 1 was support.

Table 2. Correlations (*r*) between online learning satisfaction, readiness, instructional support, assessment, and skills development

Variables	Satisfaction	Readiness	Instructional support	Assessment
Satisfaction	1			
Readiness	.13**	1		
Instructional support	.56**	.21**	1	
Assessment	.53**	.26**	.77**	1
Skills development	.58**	.32**	.66**	.65**

Note. ** $p < .001$

The results from multi-regression (Table 3) showed more detail about the roles of instructional support, assessment, and skills development to students’ satisfaction with online learning.

The regression was found the effect of the three variables of instructional support, assessment, and skills development on online learning satisfaction significant: $F(3,442) = 106.69, p < .001, \beta = .25; p < .001$ (instructional support), $\beta = .37; p < .001$ (skills

development), and insignificant value for standardized coefficient of assessment variable, $R^2 = .42$, adjust $R^2 = 41.60\%$, which indicated that 41.60% of the variance in students’ satisfaction could be explained by instructional support and skills development. The two variables instructional support and skills development both predicted satisfaction in a positive way, implying that if instructional support and skills development values increased, satisfaction would rise. Therefore, hypothesis 2.1 was support.

Table 3. Summary regression analysis of instructional support, assessment, and skills development for predicting online learning satisfaction and readiness

Variable	β	<i>t</i>	<i>p</i>
Satisfaction $F(3,442) = 106.69 (p < .001); R^2 = .42, \text{adjust } R^2 = 41.60\%$			
Instructional support	.25	4.14	.000
Assessment	.10	1.74	.083
Skills development	.37	7.37	.000
Readiness $F(3,442) = 19.21 (p < .001); R^2 = .12, \text{adjust } R^2 = 10.90\%$			
Instructional support	-.12	-1.55	.122
Assessment	.16	2.19	.029

Skills development	.30	4.78	.000
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Multi-regression analysis (Table 3) also showed the relationship among instructional support, assessment, and skills development to students' readiness for online learning after pandemic.

The regression result was found the effect of the three variables of instructional support, assessment, and skills development on online learning satisfaction significant: $F(3,442) = 19.21, p < .001, \beta = .16; p = .029$ (assessment), $\beta = .30; p < .001$ (skills development), and negative insignificant value for standardized coefficient of instructional support variable, $R^2 = .12$, adjust $R^2 = 10.90\%$, which indicated that 10.90% of the variance in students' online learning readiness could be explained by the convenience of assessment online and skills development. Assessment and skills development both predicted online learning readiness in a positive way, meaning that as the values of assessment and skills development improved, so did online learning readiness. Therefore, hypothesis 2.2 was support.

The independent samples t-test was conducted to examine the differences on online learning satisfaction from gender. Because the Levene's test was not significant ($p = .366$), the assumption of homogeneity of variances was met. The t-test result revealed that there was not a significant difference on satisfaction among participants, $t(482) = .85, p = .398$. Meanwhile, for online learning readiness, t-test result indicated that the Levene's test was not significant ($p = .417$), the assumption of homogeneity of variances was met. A significant difference on online learning readiness between male and female was found, $t(482) = 2.81, p = .005$. Male had higher mean value ($M = 3.76, SE = .09$) than that of female ($M = 3.39, SE = .10$). Males appear satisfied with their online learning throughout the pandemic and willing to continue studying when the pandemic is finished, according to the t-test findings. Females, on the other hand, were pleased with online learning during the pandemic but supposed it was no longer a suitable option thereafter. Therefore, hypothesis 3 was support.

4. Discussion

This study attempted to estimate undergraduate students' satisfaction regarding instructional support, assessment, and skills development and how these factors potentially discriminated between genders. Changing actions can lead to changes in someone's feelings and, eventually, their thoughts and vice versa (Kalodner, 2011). Accordingly, students' personal perspectives of learning achievement, satisfaction with the support they get, technical skill of the process, intellectual and emotional stimulation, and comfort with the process are all factors that influence their judgments. Because the definition of satisfaction and readiness are complex and multidimensional, this study examined instructional support, assessment, and skills development to discover how satisfied and ready learners were with their online courses.

The Pearson coefficient showed a high positive relationship among online learning satisfaction and considered factors (instructional support, assessment, skills development). Similarly, learners' online learning readiness and the three factors were positively related to readiness. The multi-regression results showed that, different from Pearson correlations, only the two factors (instructional support and skills development) predicted satisfaction; assessment and skills development predicted readiness. First, we found that instructional support and skills development had a significant effect on online learning satisfaction. This finding is consistent with the results of previous studies identifying the influencing factors of satisfaction (Aslan, 2021; Ilgaz & Adanir, 2020; Lei & Medwell, 2021; Van Wart et al., 2020). The lecturers were of great help during the implementation of online learning, in line with existing study (Bao, 2020). In other words, based on the using questionnaire (Fieger, 2012), the contents of the designed course, the availability of learning materials, and the interaction between the student and instructors may become factors that influence learning satisfaction. Our findings suggested that students who received appropriate support from their instructor felt more confident in their online evaluation, as well as who had the opportunity to develop skills during learning online reported higher mean score in satisfaction. It can be said that online learning

improves the quality and quantity of interaction among students and instructors through communication technologies (Wei & Chou, 2020).

In terms of skills development, to support continuous learning and skill development, the digital transformation in educational practices needs new approaches (Altinay et al., 2021). Evidence showed that skills development and instructional support accounted for more than one-third of the factors that influenced learners' satisfaction. It can be explained that in the context of online learning, because of the pandemic, almost all learning activities must be completed using some type of computer/Internet tool. Efforts should be made to personalize the learning process as much as possible, such as making online classes more dynamic, engaging, and participatory (Dhawan, 2020). Based on the participants' answers, they recognized their skills, including technology-related skills, problem-solving skills were improved. This finding one more time stressed the importance of adopting technology-based strategies to flourish students' potential in learning. So far, online learning has become a safe and suitable option as students can receive support from instruction timely and frequently, as well as develop technology-related skills. For these reasons, they reported their satisfaction with the learning method during the fourth wave of COVID-19.

Of the three influencing factors, evidence showed that instructional support failed to generate a significant direct effect on readiness for online learning after the pandemic. The percentage of the two factors (assessment and skills development) that could explain online learning readiness dropped to about 10% compared with nearly 42% of satisfaction, which is a remarkable number. This finding is inconsistent with an earlier study which suggested that participants were satisfied with online learning during pandemic and preferred to continue attending online lectures (Potu et al., 2021). One reason might be that the COVID-19 pandemic has expedited the globalization of online learning, offering new issues in online courses in terms of how prevailing pedagogical paradigms affect learners in various socio-educational settings (Luyt, 2013). As the first time experiencing mandatory online classes during COVID-19, most students may find this form of learning relatively tough (Demuyakor, 2020). In accordance with

our findings, previous researchers have demonstrated that even while formative evaluation procedures help to focus on individual differences, they are difficult to implement in online programs with the large number of learners they serve at the same time (Ilgaz & Adanir, 2020). Online learners' interactions occur mostly through an online thread discussion that allows not only students and students but also students and instructors to interact in asynchronous ways (Hung et al., 2010). Students who were not confident in their digital abilities could report that they were not ready for online learning if they had another option after the pandemic. The finding is also in line with existing research which believed that allowing students to evaluate their own learning and utilizing evaluation to improve learning experiences are important for creating a difference in learning and transferrable skills (Altinay et al., 2021). As a result, students reported assessment and skills development as factors influencing their online learning readiness.

In terms of gender, according to research, different circumstances have different notions and perceptions of online worlds (Luyt, 2013). Students from many levels of education are still in the early stages of online learning, as well as other educational technology uses. After gender was taken into account, male and female students likely had the same satisfaction with online learning. This finding can be understood for various reasons. The serious outbreak of the global pandemic has created a chance for institutions, even some that were previously reluctant to change, to accept modern technology (e.g., online learning). All institutions must juggle various online educational techniques and endeavor to make better use of technology (Dhawan, 2020).

Females exhibited a decrease in readiness for online learning after the epidemic, although they were satisfied with the course as males were during the fourth wave of the pandemic. Reasons could be that traditional classroom setting is totally different from that of online learning. The participants were compelled to shift into a complicated educational setting due to the quick transition to online forms of delivery (Lei & Medwell, 2021). The success of online education and the efficacy of its learning outcomes are heavily reliant on students' high-level active learning outside of class (Bao, 2020). To that end, learners should adopt a variety of techniques

to manage homework and assignments to improve learning.

Basically, women, in comparison to men, confront major contextual barriers to utilizing flexible learning possibilities (Veletsianos et al., 2021). For example, men and women display differing degrees of anxiety, acceptance, and curiosity toward new technology over time, and these variations have a significant impact on learning settings (McCay-Peet, L., & Quan-Haase, A., 2017; Ramírez-Correa et al., 2015). Since online learning is described as a tool for making the teaching–learning process more flexible (Dhawan, 2020), obstacles such as caring obligations or taking on unpaid home labor show that women and men may benefit and achieve different outcomes from temporally flexible learning opportunities (Veletsianos et al., 2021). Besides, technological skills can be taken into account to interpret online learning readiness differences between genders, as students who have a high level of confidence in utilizing computer tools may find it simpler to succeed in the course (Wei & Chou, 2020). Price (2006) believed that females are disadvantaged by technology while taking online courses and have less computer access than men in higher education. Our findings about gender differences were consistent with existing study.

5. Implications and Limitations

By 2030, technology will have reformed universities (Demuyakor, 2020). One of the most difficult aspects of online learning is fostering awareness of learners. To come up with such concerns, the findings pointed out online learning satisfaction and readiness is necessary to create an online learning environment that is based on the expectations of learners and thorough feedback.

Probing readiness for online learning may be a key strategy to help students enhance their active-learning effectiveness and learn actively. This study showed the importance of instructional support, assessment, and skills development to boost learners' satisfaction and readiness during online learning. The findings from the current study have implications for educators to implement online learning in the future. According to the statistical analysis in this study, it was proposed that the student's online learning satisfaction and readiness is contributed by three factors in different ways. These

factors are believed to influence male and female students dissimilar. The study's findings suggest to educational academics and practitioners how to encourage students with various perspectives and degrees of readiness toward a better online learning experience.

The study includes a valuable insight on how to support adult learning. Thorough examination of online learning from the learners' perspective emphasizes the need for instructional support from institutions. Universities should foster students to become active parts of a changing society to adapt to rapid change in technology, including changes in learning and teaching methods. They should also create robust online learning programs that support and promote multi-dimensional knowledge that meet learners' requirements (e.g., understanding, skills).

Our study suggests a reliable instrument that can be used to measure diverse aspects of online learning satisfaction and readiness. Unlike current researchers who have explored only one or two aspects in online settings (e.g., self-efficacy, motivation), we explored aspects that may represent more concrete online learning contexts. This study demonstrates that multiple aspects may jointly impact satisfaction and readiness in online contexts.

This study also has some limitations. The study was performed on a relatively small population, which limits our ability to generalize from this study. Secondly, a large-scale survey is needed to ensure a fair representation of the target population in higher educational institutions and facilitate improvement in teaching and learning methods. The study's findings mainly came from the view of learners, other stakeholders' perspectives are all needed to reach a comprehensive understanding of the issues. Empirical evidence is also needed to determine whether online learning has actualized the academic goals of students.

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MỨC ĐỘ HÀI LÒNG VÀ SẴN SÀNG HỌC TRỰC TUYẾN: CÁC YẾU TỐ ẢNH HƯỞNG VÀ SỰ KHÁC BIỆT VỀ GIỚI

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Tóm tắt: Bài nghiên cứu này nhằm mục đích tìm ra mối quan hệ giữa ba nhân tố (hỗ trợ hướng dẫn, đánh giá và phát triển kỹ năng), sự hài lòng, cũng như sự sẵn sàng, sự khác biệt về giới tính trong học tập trực tuyến. Nghiên cứu đã khảo sát sinh viên tại các trường đại học ở miền Nam Việt Nam (n = 484) bằng cách sử dụng phiên bản tiếng Việt của bảng hỏi "The Student Outcomes Survey" (Fieger, 2012). Bài báo cũng xem xét sự hài lòng và sẵn sàng của sinh viên có liên quan đến việc hỗ trợ hướng dẫn, đánh giá và phát triển kỹ năng. Ngoài ra, hai biến số (hỗ trợ hướng dẫn và phát triển kỹ năng) cũng giải thích sự hài lòng của người học trong đánh giá và phát triển kỹ năng. Bên cạnh đó, mẫu độc lập T-test cho thấy nam giới hài lòng với việc học trực tuyến và sẵn sàng tham gia hình thức học này khi đại dịch kết thúc. Nữ giới cũng có cùng kết quả với nam giới về việc học trực tuyến trong thời kỳ đại dịch nhưng lại không thích hợp trong các tình huống bình thường. Những phát hiện này cho thấy sự cần thiết của việc kết hợp hỗ trợ hướng dẫn, đánh giá và phát triển kỹ năng để nâng cao sự hài lòng và sẵn sàng của người học. Nghiên cứu đóng góp vào lĩnh vực giáo dục liên quan đến nhận thức của người học về học trực tuyến. Ý nghĩa và hạn chế của những phát hiện này đã được thảo luận.

Từ khóa: sự hài lòng; sự sẵn sàng; sinh viên; học trực tuyến; giới tính.