



Do you feel prepared? EFL learners' readiness for online learning and self-directed learning ability

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Citation: Genc, G., Kutlu, M. N., & Kirmizibayrak, O. (2024). Do you feel prepared? EFL learners' readiness for online learning and self-directed learning ability. *Contemporary Educational Technology*, 16(2), ep501. <https://doi.org/10.30935/cedtech/14332>

ARTICLE INFO

Received: 19 Nov 2023

Accepted: 13 Feb 2024

ABSTRACT

In recent years, the widespread use of online learning environments and tools, especially with the outbreak of the COVID-19 pandemic, has brought students' readiness for online learning and their ability to manage their own learning processes to the fore. This study aims to investigate the online learning readiness (OLR) and self-directed learning skills of English language learners at a state university in Turkey. For this purpose, a cross-sectional, descriptive study methodology was employed. The study group consisted of 202 randomly selected first-year volunteer students. An information form and two scales were used to collect data. Additionally, the effects of some demographic factors on EFL students' OLR and self-directed learning skills were also investigated. The results of the study revealed that university students have a moderate level of self-directed learning and readiness to learn in the online environment. As another result of the study, it was determined that various independent variables had an impact on the participants' OLR levels. In parallel with the findings of the study, some pedagogical strategies were discussed and suggested.

Keywords: readiness for online learning, self-directed learning, English as a foreign language, higher education, technology in education

INTRODUCTION

In today's digital era, integrating technology into education has revolutionized how knowledge is learned and acquired. The rapid development and widespread use of information and communication technologies (ICTs) have significantly transformed the educational landscape, providing new and diverse approaches to delivering education effectively (Wang & Khan, 2021). It would not be rational behavior in the current period to force students born into technology, digital natives (Prensky, 2001), in other words, with the traditional method and deprive them of the technology they already know how to use. With the inclusion of technology, students are exposed to it both in their daily lives and within the educational context (Fuentes Cabrera et al., 2020). As technology has been incorporated into education, it has brought many advantages. Mobile learning, for example, offers convenience, accessibility, and portability, allowing students to access information when and where they need it (Briz-Ponce et al., 2017). However, with the shift from classroom-based learning to online or hybrid learning during COVID-19, this incorporation has also brought new challenges and needs for students.

Since learners have been exposed to online and hybrid learning during and after COVID-19, the most critical challenge is to change the habits of teacher-directed traditional formal education that has been going

on for years and keep up with the new situation. In traditional formal education, students are guided by the teacher in terms of the resources used and learning methods and techniques. However, online or hybrid education is more accessible regarding materials, learning strategies and techniques, and the time spent on a task. One of the most essential requirements for this flexibility is developing self-directed learning skills and having a high degree of online learning readiness (OLR) for students. Bergmann (2001) defines self-directed learning as learning in which the students create, carry out, and evaluate learning opportunities. A self-directed learner can plan their learning process, implement the plan, and evaluate the outcomes. However, in the 21st century, when online-based education is quite common, learners need online learning abilities to regulate their learning. For that reason, to succeed in this era, learners should be equipped with self-directed learning skills and OLR, which refers to the ability to use the advantages of online learning (Lopes, 2007). Rivera (2018) states that OLR is one of the essential factors that affect the success and failure of online courses. Lema and Agrusa (2009) emphasize that ICT is a vital source for the needs of self-directed learners in terms of their internet-based learning environment and management. According to Lai (2011), "learners' computer skills and experiences, particularly in network literacy, are crucial for developing their self-learning skills (SDL) capability" (p. 3). Considering the vital role of SDL and OLR in the 21st century educational environment, this article is of utmost importance in investigating university students' self-directed learning skills and OLR.

THEORETICAL FRAMEWORK

Online Learning Readiness

It is well-known that the traditional and commonly used education model is face-to-face. However, the rapid integration of digital technologies into education and the empowering impact of COVID-19 in this perspective has increased the transition from the face-to-face education model to a fully online, hybrid, or online-supported education model. Online learning is defined as "the use of the internet in some way to enhance the interaction between teacher and student" (Curtain, 2022, p. 12). However, as the online education models diversify, the definition of online education also changes. For this reason, the term online learning has been used for different contexts, such as hybrid learning, online distance learning, and e-learning. Online learning is more flexible regarding technologies and the models in which these technologies are used, such as video conferencing, audio chatting, online discussion, and other online platforms (Hrastinski, 2008). In order to use all these online platforms and tools effectively, both learners' and teachers' online readiness levels should be developed.

OLR refers to the "cognitive awareness and maturity that a student develops for successful learning in a web-based environment" (Liu & Kaye, 2017, p. 242). Liu (2019) defines OLR as learners' preparedness for activities in an online environment. According to Liu and Kaye (2016), most scholars state that OLR is crucial to learners' learning engagement, participation, interactions, and achievements. Many scholars state that there is a significant positive correlation between learners' OLR and academic achievement (Cigdem & Ozturk, 2016; Tanya & Rachel, 2020; Torun, 2020). Motivation, prior knowledge, cognitive learning techniques, communication, and technical and social competencies are essential for successful online learning. In addition to these competencies, Yue (2018) divided social competencies into two parts: Social competencies for instructions and social competencies for classmates. In short, more than just technical abilities are required for OLR. Learners should have online learning literacy to decide cognitively and use the digital tools effectively. Additionally, learners should have communication and social competencies to successfully integrate into the learning environment. Lastly, learners must have the self-directed learning skills to plan, carry out, and control their learning process and outcomes.

Self-Directed Learning

With the increasing inclusion of technology in education and the development of virtual learning tools and environments, the need for learners to have the ability to organize their learning environments and learning methods has increased. This situation has brought the importance of 'self-directed learning skills' to the forefront. Self-directed learning is characterized as a learning process in which the student takes charge of their learning experiences and learner traits like motivation and self-efficacy (Ruttencutter, 2018). Self-

directed learning is known as a reciprocal connection between behavioral, environmental, and personal elements. While learning performance is one of the behavioral elements, teaching, peer learning, and help-seeking can be classified into environmental factors. On the other hand, self-efficacy, goal orientation, and metacognition are the personal aspects (Schraw et al., 2006). According to Brockett and Hiemstra (1991), self-directed learning is a process that includes plans, implementation, and evaluation of the personal learning process. The planning includes initiation, motivation, goal setting, and resource identification, and in that step, learners set clear goals and identify what they need to reach these goals. The implementation stage involves action, and learners actively engage with their resources and learning environments. The evaluation is another critical step because it assesses the effectiveness of planning and implementation processes. Based on these processes, a self-directed learner can be defined as one who takes the initiative to identify the needs of the learning process, develops learning objectives, applies effective learning techniques, and assesses the results of these broad learning cycles.

Gibson's (2002) definition of self-directed learning emphasizes the concept of metacognition and states that metacognition has a crucial role in self-directed learning and that the basis of self-directed learning is metacognitive competencies. He highlights that metacognition involves considering knowledge, actions, and thoughts. In a similar vein, self-directed learners are expected to learn to think for themselves, make plans, and act. So, self-directed learners are expected to nurture their independent thought, planning, and action skills. They need to reflect on their ideas to make wise conclusions and choices to guarantee that their actions will be successful. (Gibson, 2002). Dabbagh and Kistasnas (2004) provide the following summary of the broad characteristics of self-directed learners:

- The student will benefit from self-observation, paying close attention to one's own learning practices and analyzing their effects.
- Contrasting outputs at the end of a learning activity to an aim or target is the process of self-assessment.
- The use of and confidence in the methods that students believe will enable them to achieve their goal, which is an accountability plan. To provide an example, one could summarize the content, provide an example, or reiterate the main points.
- Seeking assistance suggests that a person needs sources and the capacity to learn from them in order to accomplish the goal he has set for himself.
- Time management is a self-directed process that gives learners the freedom to choose the tactics they wish to utilize to accomplish their objectives and maximize the little time available (Dabbagh & Kistasnas, 2004).

In the literature, numerous study findings investigate the impact of SRL on academic achievement and the impact of various demographic variables on SRL (Cazan & Schiopca, 2014; Khiat, 2017). For example, Cazan and Schiopca (2014) studied the relationships between academic achievement, personality traits, and self-directed learning. The results showed a correlation between personality traits, self-directed learning, and a relationship between self-directed learning and academic achievement. Khiat (2017) examined the self-directed learning capacity of learners and discovered a relationship between them and also skills like goal-setting, time management, procrastination control, note-taking and research skills, technological preparedness for online classes, and stress management are related to self-directed learning skills of the learners (Khiat, 2017). According to Holzweber (2019), SDL is ideal for adult learners because it enables them to select the resources and academic goals that best suit them. Self-directed learning is particularly beneficial when associated with e-learning since it gives learners greater autonomy regarding where, when, and how quickly they study. Based on the data from a qualitative study involving university students, SDL was widely accepted by the students and offered several benefits. This study revealed that motivation for students came from establishing a balance between their freedom and responsibilities (Holzweber, 2019).

It seems that self-directed learning is a core skill for learners to become successful in formal and informal learning environments. Especially in the 21st century, when it comes to talking about distance education very often, the integration of artificial intelligence into education, self-directed learning skills, and OLR must be developed to organize self-learning strategies, materials, and environments.

Self-Directed Learning in a Technology Enhanced Environment

Learning environments in today's world are equipped with various digital tools and materials such as video, text, apps, and some artificial intelligence tools. For this reason, learners must be able to use these tools to be engaged in a learning environment. However, more than having the ability to use these tools is required for successful learning. Since today's learning environments are flexible in terms of time and type of education, in order to plan the right learning strategies with the appropriate materials, observe the learning process, and reorganize the learning process according to the outcomes requires to have 'digital literacy, OLR, and self-directed learning skills. Numerous studies emphasize the effects of OLR on learners' self-directed learning skills (Chou & Lui, 2005; Howland & Moore, 2002; Nicol, 2007). Luu (2022) states that the practice of self-directed learning is further enhanced by online education because self-directed learning includes the elements of self-management and monitoring, as well as motivation, which are vital for online learning. Demir et al. (2014) state that until the end of the 90s, "self-directed learning" was possible as a simple concept. However, after the 2000s, with the rapid development and spread of ICTs, self-directed learning was replaced by the concept of technology-based self-directed learning. Some researchers found self-directed learning critical for OLR, and OLR enhances learners' self-directed learning skills (Garrison, 2003; Kose, 2023; Vonderwell & Turner, 2005). In another study, Horzum et al. (2015) found a positive correlation between learners' self-directed learning skills and OLR.

In short, to create an effective learning environment, learners should plan the learning strategies, decide on the appropriate learning materials, implement the plan by using learning materials effectively, observe the learning process, and act according to the outcomes of the process. From that perspective, learners should have high SDL skills and OLR. For this reason, this descriptive study aims to determine the self-directed learning skills and OLR levels of higher education students and determine the effects of some variables on both. More precisely, in this context, the study examines university students' self-directed learning skills and OLR according to their gender, perceived proficiency in using the internet, preferred study method, and online learning experience. In line with this purpose, answers to the following research questions were sought:

1. To what extent do EFL learners in higher education exercise "self-directed learning skills" over their language learning experiences, and what is the degree of "OLR" among them?
2. Do the self-directed learning skills and OLR levels of students at higher education differ according to gender, self-reported competency in using the internet, preferred study method, and learning experience?

METHOD

Research Design

This present study was carried out at a state university in eastern Turkey. The students in the undergraduate programs are admitted to the university after a central exam conducted by the Higher Educational Council and at the same session throughout the country. The study aimed to determine the levels of "self-directed learning skills" and "OLR" of students who have just enrolled at the university. In addition, the effects of some independent variables such as gender, self-reported competency in using the internet, preferred study method, and learning experience. So, the study adopted the quantitative research method, a kind of inquiry in which events and facts are unbiasedly assessed, recorded, and reported statistically (Mertens, 2010). Furthermore, a survey research design that investigates a sample of the population to generate a quantitative description of data was employed (Creswell, 2014). Based on sample data, the researcher elaborates or draws inferences about the population as a whole.

Participants

The study participants involved 202 volunteer students currently studying eight different undergraduate programs at a state university. Convenience sampling was employed to reach the target population. Of 202 students, 167 (82.7) were female, while 35 (17.3) were male.

The data collected through the information form has been presented in the tables to provide a general profile of the participants regarding their contributions to the research. Participants were first asked about

Table 1. Self-reported competency in using the Internet

Scale	Frequency (n)	Percentage (%)
Very low	9	4.5
Below average	18	8.9
Average	90	44.6
Above average	74	36.6
Very high	11	5.4

Table 2. Preferred learning methods

Scale	Frequency (n)	Percentage (%)
Face-to-face instruction	86	42.6
Hybrid learning	84	41.6
E-learning	32	15.8

Table 3. Overall preferences for studying

Scale	Frequency (n)	Percentage (%)
Individual study	169	83.7
Group	33	16.3

Table 4. Previous online learning experience

Scale	Frequency (n)	Percentage (%)
Yes	148	73.3
No	54	26.7

their internet usage proficiency, as shown in **Table 1**. Approximately half of the participants (45.0%) indicated they possess a moderate level of competency, while more than one-third (36.6%) reported having sufficient competency.

Secondly, participants were asked about their preferred learning methods, and it was observed that among their preferences, face-to-face instruction ranked first (42.6%), hybrid learning (41.6%) came in second place, and e-learning (15.8%), held the third position (**Table 2**).

Thirdly, when participants were questioned about their overall preferences for studying, it was found that a significant majority of the participants -approximately 83.7%- preferred individual study (**Table 3**).

Finally, participants were asked whether they had prior experience with online learning, and approximately three-quarters (75.0%) stated that they had a previous online learning experience. However, it is noteworthy that around one-fourth (26.7%) of the participants had yet to gain experience with online learning (**Table 4**).

Instrumentation

The instrument employed in this study comprises three distinct sections. The first section involves a background information form for gathering participant data. The second section utilizes the “self-rating scale of self-directed learning” developed by Williamson (2007). Lastly, the third section incorporates the “learner readiness for online learning scale”, developed by Hung et al. (2010). Self-directed learning skills of the learners are assessed across five sub-dimensions as “awareness, learning strategies, learning activities, evaluation, and interpersonal skills,” whereas learners’ readiness for online learning is evaluated under five sub-dimensions as “computer/internet self-efficacy, self-directed learning, learner control (in an online context), motivation for learning (in an online context), and online communication self-efficacy”.

The reliability of the instruments was ensured by calculating Cronbach’s alpha coefficients. As seen in **Table 5**, Cronbach’s alpha values for the overall scales and their sub-dimensions were satisfactory for conducting the study.

Data Analysis

The normality assumption was checked by Kolmogorov-Smirnov analysis for both scales (self-directed learning 0.151 and learners’ readiness for online learning 0.594) and through examining skewness and kurtosis values. Statistical package for social science, version 28.0, was used to perform the descriptive and

Table 5. Cronbach's alpha coefficient

Scale	Cronbach's alpha coefficient
Self-rating scale of self-directed learning	0.957
Awareness	0.797
Learning strategies	0.797
Learning activities	0.859
Evaluation	0.846
Interpersonal skills	0.883
Learners' readiness for online learning	0.883
Computer/the Internet self-efficacy	0.857
Self-directed learning	0.633
Learner control (in an online context)	0.678
Motivation for learning (in an online context)	0.777
Online communication self-efficacy	0.806

Table 6. Descriptive statistics of self-directed learning

Items	n	Minimum	Maximum	Mean	SD
Awareness	202	2.43	5.00	3.860	0.551
Learning strategies	202	1.60	5.00	3.722	0.564
Learning activities	202	2.00	5.00	3.667	0.575
Evaluation	202	2.30	5.00	3.724	0.574
Interpersonal skills	202	2.00	5.00	3.671	0.608
Overall SRL	202	2.45	5.00	3.716	0.511

Note. SD: Standard deviation

inferential analyses of the study. Descriptive analysis was used to answer the first research question, which sought to determine the participants' self-directed learning and OLR levels.

Since the second research question of the study aims to investigate whether factors such as gender, self-reported internet proficiency, study method preference, and prior learning experiences have any impact on self-directed learning skills and OLR levels, multivariate analysis of variance was employed for inferential data analysis. It is emphasized in the literature that MANOVA is the most appropriate analysis when more than one dependent variable is evaluated together: "determining whether groups differ on more than one dependent variable" (Gall et al., 2007, p. 321). Buyukozturk (2012) suggests that MANOVA is a powerful multivariate statistic used in experimental and survey research, and the use of MANOVA is appropriate when there is a relationship between dependent variables. ANOVA since the likelihood of Type I Error rises when ANOVA is done separately. In addition, Stevens (1996) stated that MANOVA should be preferred when dependent variables correlate. Therefore, firstly, Pearson correlation analysis was conducted between self-directed learning and OLR to check the correlation.

The homogeneity of the variance and covariance matrices of the dependent variable scores is one of the assumptions posed by MANOVA. For every dependent variable, group variances and covariances are assumed to be equal for all probable binary combinations of the dependent variables. Box test is employed to analyze the homogeneity of covariance matrices. The requirement of equality of covariances in box test can be satisfied with a p-value higher than .05 (Hair et al., 1995). According to the test findings, the covariance matrices are homogenous ($p > .05$). The homogeneity of error variances was examined using Levene's test. While analyzing the differences between groups, Pillai's trace and Wilks' lambda values were used depending on the categories in the independent variables (Mertler & Vannatta, 2001). Post-hoc tests were employed to determine which groups demonstrated the difference when significant differences were identified.

FINDINGS

Self-Directed Learning Experiences & Online Learning Readiness of EFL Learners at Higher Education

As mentioned above, the self-directed learning experiences of EFL learners were evaluated under five sub-dimensions, and the mean scores of the participants are displayed in [Table 6](#).

Table 7. Descriptive statistics of online learning readiness

Items	n	Minimum	Maximum	Mean	SD
Computer/Internet self-efficacy	202	1.00	5.00	3.138	0.909
Self-directed learning	202	2.00	5.00	3.721	0.505
Learner control (in an online context)	202	1.00	5.00	3.250	0.755
Motivation for learning (in an online context)	202	1.00	5.00	3.534	0.695
Online communication self-efficacy	202	1.00	5.00	3.407	0.837
Overall OLR	202	1.61	4.72	3.262	0.501

Note. SD: Standard deviation

As seen in [Table 6](#), firstly, with a mean score of 3.860, “awareness sub-dimension” had the highest mean score, suggesting that participants have a good grasp of their own learning processes and the significance of self-directed learning a foreign language. This high level of awareness is encouraging since it shows that students are aware of their strengths and weaknesses, which helps them regulate their studies more effectively. Secondly, the “evaluation sub-dimension” had a mean score of 3.724, which is relatively high and indicates that participants often evaluate their own language learning progress–self-directed learning gains from this technique since it promotes performance-based reflection and modifications. Next, the mean score for “learning strategies sub-dimension” was 3.722, suggesting that individuals employ various techniques to enhance their language learning. This score suggests that learning strategies may still be improved in terms of variety and efficacy.

Moreover, among the five sub-dimensions, the second lowest score is the “interpersonal skills sub-dimension”. The average score obtained from this sub-dimension shows that the participants have moderate interpersonal skills. Finally, although the scores in all sub-dimensions are pretty close to each other, the lowest score is the “learning activities sub-dimension,” with an average score of 3.667. As in the other sub-dimensions, although this mean score indicates a satisfactory level of participation, it suggests that there is a need for improvement and development in terms of diversification and development of learning activities.

OLR levels of EFL learners were evaluated under five sub-dimensions, and [Table 7](#) reveals both the overall and sub-dimension scores. The sub-dimension in which the participants received the highest score was the “self-directed learning sub-dimension.” As suggested by previous researchers, today’s technology provides students with a wide range of resources from a learning perspective. However, it also brings the challenge of addressing this abundance with focus and purpose.

Motivation is one of the most important factors affecting students’ readiness. In this study, the “motivation for learning (in an online context) sub-dimension” appeared as the second sub-dimension with the second highest mean, indicating that participants are generally open to and accepting new ideas and information available online. Participants have a satisfactory level of self-confidence in online communication, as shown by the “online communication self-efficacy sub-dimension,” which ranks third among the sub-dimensions with a mean score of 3.407. The mean score of 3.250 in the “learner control” sub-dimension shows that the participants generally exhibit an average degree of control over their online learning. Participants’ “computer/internet self-efficacy sub-dimension” level is at a basic level, with an average score of 3.138. This sub-dimension is related to students’ self-confidence level in using Microsoft Office programs. It includes preparing presentations in online environments, preparing and sharing documents, using online learning platforms and resources, and using search engines such as Google and Yahoo to find online educational materials.

Self-Directed Learning Skills & OLR Levels of Students at Higher Education in Terms of Gender, Self-Reported Competency in Using the Internet, Preferred Study Method, & Learning Experience

MANOVA analysis was conducted to examine the impact of “gender, self-reported competency in using the internet, preferred study method, and learning experience” on participants’ levels of “self-directed learning and OLR.” The preference for using MANOVA in this context lies in its robust and multivariate nature, making it suitable for experimental and survey research. In addition, MANOVA is employed when multiple dependent variables are involved because conducting separate ANOVAs increases the likelihood of type I

Table 8. Skewness & kurtosis coefficients of variables

Variables	Skewness	Kurtosis
Self-directed learning	0.279	-0.325
Online learning readiness	0.247	0.596

Table 9. Levene's & box test results

Variables	Levene tests		Box tests	
	F	p-value	Box's M	p-value
Self-directed learning	1.202	0.058	85.764	0.294
Online learning readiness	1.534	0.219		

Table 10. Results of correlation between dependent variables

Variables	n	r	p-value
Self-directed learning	202	0.595	0.000*
Online learning readiness			

Table 11. Results of multivariate factor analysis

Effect	Variables	λ	SS	df	MS	F	p-value	η_p^2	1- β
Gender	ORL	0.99	0.01	1	0.01	0.06	0.79	0.00	0.05
	SRL		0.12	1	0.12	0.48	0.48	0.00	0.10
Competency	ORL	0.91	2,61	4	0.65	3.66	0.00*	0.08	0.87
	SRL		1,55	4	0.38	1.55	0.19	0.03	0.47
Learning experience	ORL	0.97	0.72	1	0.72	4.05	0.04*	0.02	0.51
	SRL		0.31	1	0.31	1.24	0.26	0.00	0.19
Study type	ORL	0.96	0.30	2	0.15	0.84	0.43	0.01	0.19
	SRL		0.68	2	0.34	1.37	0.25	0.01	0.29

errors (Buyukozturk, 2012). However, in order to perform MANOVA, some assumptions must be met. The results of these assumption tests are presented in the following paragraphs.

Firstly, the normality assumption was tested, and the results are presented in **Table 8**. When skewness and kurtosis values, histogram, and scatterplots for the assumption of linearity were analyzed, it was concluded that this assumption had been met. **Table 8** shows that the skewness and kurtosis coefficients for each variable fall within the range of ± 1 . Skewness and kurtosis coefficients within the ± 1 range indicate that the scores do not exhibit a significant deviation from a normal distribution.

Secondly, to determine the multivariate outliers, Mahalanobis and Cook distance values were examined, and the values were found to be 14.08 for Mahalanobis and 0.01 for Cook. Any outliers did not exceed the critical value since it was emphasized that the Cook value should not be greater than one and the critical value for Mahalanobis distance should be 16.27 (Pallant, 2020).

The third assumption of MANOVA is to determine that the variance and covariance matrices of the dependent variable scores are homogeneous. To see the homogeneity of covariance matrices, a box test was conducted, and to examine the homogeneity of error variances, a Levene test was performed. The results of both tests are presented in **Table 9**. **Table 9** shows that p values are greater than 0.05 in all results, indicating that the covariance matrices are homogeneous.

Finally, the correlation between the two dependent variables was tested through Pearson's product moment, and the results are presented in **Table 10**. It is expected that there should be a significant but not strong correlation between two dependent variables in order to perform MANOVA (Stevens, 1996). As seen in **Table 10**, there is a positive, significant, but moderately strong relationship between Self-directed Learning and OLR, as highlighted in previous research (Liu & Kaye, 2016; Sahda et al., 2017).

As seen above, after all assumptions were met, MANOVA analysis was performed, and the results are presented in **Table 11**.

Considering the interactive effects of independent variables on the dependent variable, it is seen that only such independent variables as "self-reported competency in using the internet" and "learning experience" have a significant effect on participants' OLR levels. On the other hand, it was observed that none of the independent variables had any effect on the self-directed learning variable (**Table 11**).

MANOVA results clearly indicated that students with higher levels of competency in using the internet and participants with extensive learning experience had higher levels of OLR. Based on the results of the MANOVA analysis presented in **Table 11**, it seems that 'students who consider themselves very inadequate in internet use' are statistically significantly differentiated from 'adequate' and 'very adequate' students. MANOVA results clearly indicated that students with higher competency levels in using the internet and extensive learning experience had higher levels of OLR.

The effect size value was found to be 0.082, indicating an effect of approximately 8.2%. This value suggests that 'students who feel very inadequate at using the internet' have a significant but relatively small effect on the level of preparedness for online learning. The observed power value (0.873) shows that the power of the analysis is high, and the results are reliable. Wilks' lambda takes a value between 0 and 1, while a smaller λ value indicates that the difference between groups is greater. However, as seen, λ was found to be quite close to 1 in the study with a value of 0.99. This value indicates that the effect of the difference between the groups is low. Although the differences between the groups are statistically significant, the effect size is relatively low (**Table 11**).

The results show that EFL students with experience in distance education have significantly higher mean scores in OLR compared to those who do not have experience in distance education. However, when the values presented in **Table 11** are examined to see the effect and strength of this significant difference, the eta-square value is calculated as 0.024, i.e., 2.4%, so it is not possible to say that its contribution to the total variance is high. In other words, the difference between students with experience and those without experience is relatively small but statistically significant. By looking at the observed power value (0.517), it can be concluded that the power of the analysis is at a moderate level, and the results are reliable. Finally, the Wilks lambda value (0.97), which is pretty close to 1, confirms that although the difference between the groups is statistically significant, the effect size is low.

DISCUSSION

First, it is necessary to emphasize that this research shows that university students have average self-directed and OLR levels. In the first place, it would be appropriate to consider students' readiness levels and self-regulated learning levels separately. The finding, which indicates that the readiness level of university students for online learning is above average, is significantly consistent with similar previous studies. Many studies investigating the readiness levels of undergraduate and graduate university students, teachers, and academics for online learning are pretty notable in terms of showing that the readiness levels of university students are above average (Adiyaman, 2020; Catana-Kuleli, 2018; Horzum, 2019; Ozgur et al., 2014; Ozturk Demir & Eren, 2022). Based on previous studies examining the readiness levels of undergraduate and graduate students for online learning (Dorsah, 2021; Rasouli et al., 2016), this finding is important in terms of indicating students' ability to adapt to online learning environments and develop their learning skills effectively in these environments.

Regarding foreign language education, students may consider online language learning experiences more positively and readily. This finding may also indicate that they have the potential to use online resources effectively in the language learning process and improve their language skills online. In addition, it is also possible to find studies that show different results in the sub-dimensions of the readiness scale. For example, when analyzed according to the sub-dimensions of the scale, it was determined that students had a very high level of readiness in the dimension of "internet self-efficacy", a high level of readiness in the dimensions of "online communication self-efficacy", "computer self-efficacy", "self-learning" and "learner control", and low level of readiness in the dimension of "motivation towards e-learning" (Ozturk Demir & Eren, 2022). In another study that analyzed students' OLR levels with respect to various sub-dimensions, it was found that students' readiness levels were low in the learner control dimension, medium in the self-directed learning and learner motivation dimensions, and high in the computer/internet self-efficacy dimension (Chung et al., 2020).

The students' self-directed learning levels were also reported to be above average. The findings of previous studies investigating the self-directed learning levels of university students mostly indicate that university students have above-average SRL levels (Argun, 2021; Askin, 2015; Askin & Demirel, 2018; Chitra et al., 2022; Holzweber, 2019). It seems that the fact that university-level students as adults have various learning

experiences, either easy or difficult, and face obstacles (Holzweber, 2019) throughout their educational life most likely provides them with skills such as being aware of their own learning styles or monitoring their progress. For example, Khiat (2017), who investigated the relationship between adult learners' self-directed learning skills and academic achievement, found that competencies such as goal setting, time management, and note-taking are closely related to students' high level of self-directed learning skills. Similarly, Ozer and Yukselir (2021) highlighted a direct relationship between self-directed learning skills and the academic performance of university students learning English as a foreign language. Askin Tekkol and Demirel (2018) also emphasized the positive and significant contribution of self-directed learning skills on the learning process with the findings of their study with university students. The fact that the positive contribution of self-directed learning skills on academic achievement has been proven by the studies mentioned above has led to various studies on the development and teaching of self-directed learning skills. For example, in the studies of Hwang (2018) and Yurdal and Gencel (2015), in different contexts and with different participants, it was seen that problem-based learning improves self-directed learning skills in undergraduate university students.

As for the scores of the sub-dimensions, the fact that students received the highest scores from "awareness" and "evaluation" among the sub-dimensions of self-directed learning is essential as it shows that they are highly skilled in identifying their individual learning needs and monitoring their development. This finding is in line with the literature, which emphasizes that self-directed foreign language learners are individuals who do not give up easily when they face challenges in their learning process, as they know how to regulate their emotions and motivation (Holzweber, 2019; Khiat, 2017; Pajares, 2008). Similarly, Pintrich (2000) emphasized that language learners with high self-directed learning awareness are conscious of their own potential and limitations (Ozer & Yukselir, 2021). The ability to establish specific, attainable learning objectives is essential for advancement. Finally, the high score on awareness indicates that participants can successfully set and monitor goals for their language learning studies. As suggested by Zimmerman and Schunk (2011), learners with a high awareness of self-directed learning are naturally expected to determine their learning goals and try to achieve them.

The findings clearly show that students' weakest areas are organizing their interpersonal skills and diversifying learning activities. At this point, the motivating role of interpersonal interactions in the language learning process should not be ignored. Hung's (2016) study, which aimed to measure teachers' self-directed learning skills, observed that teachers' ability to organize their interpersonal skills was related to their professional experience, and experienced teachers were more successful in organizing their interpersonal skills. This study, together with the study of Toit-Brits and van Zyl (2017), is noteworthy in that it shows that students' self-directed learning skills need to be developed and supported as a whole with its sub-dimensions. Toit-Brits and van Zyl (2017) highlighted the necessity of creating a self-directed learning classroom atmosphere to foster and develop self-directed learning characteristics. In addition, there are studies in the literature indicating that students' readiness levels for online learning in sub-dimensions such as social, technical, and communication improves with a self-paced and asynchronous orientation program (Liu, 2019). In sum, confidence in establishing and maintaining positive relationships with peers or others in foreign language learning and the capacity to easily collaborate with others are soft skills that should be considered as they can contribute to a supportive learning environment. Sharing one's achievements and online work with others also shows a tendency toward active conversation and collaboration, which is essential for successful online language learning (Järverlä et al., 2015).

The fact that the participants also received the highest scores from the self-directed learning sub-dimension of OLR scale indicates a consistency between these two findings. Undoubtedly, as in traditional learning environments, achieving success and using resources effectively in online learning environments is possible only by mastering self-managed learning strategies, as suggested by previous literature (Bakac & Ozen, 2018; Lan, 2018; Reinders & White, 2011). Bakac and Ozen (2018) revealed that students' Techno Pedagogic Content Knowledge levels are significantly related to self-directed learning. Holzweber (2019) also pointed out that in e-learning environments, self-directed learning is a motivating factor for foreign language learners at university. Considering the items in the sub-dimension of self-directed learning in online environments, participants generally have a strong tendency to make and follow study plans, are willing to take control of their learning processes, and are aware of seeking help and feedback when needed. Uysal (2015) emphasized that technology facilitates access to information sources, and technology has a direct

impact on self-directed learning. He describes self-directed learning through technology as a process in which the learner takes responsibility for determining his/her own educational needs and goals, choosing and applying the appropriate strategy, and evaluating the learning process (Uysal, 2015).

Another item in the sub-dimension indicates that the participants value the information they access through the internet and are open to learning new materials and skills they can access online. These findings are very encouraging for the foreign language teaching process. Indeed, students who are in control of their own learning process, who monitor this process, and who are aware of when to seek feedback or help are the students who are expected to be successful in acquiring the target language more effectively (Oxford, 2011). Enakeyarhe (2016) suggested that self-directed learning is an ongoing, repetitive process that requires various instructional strategies, planning, development, and collaboration.

The moderately strong correlation between learners' readiness for online learning and their self-directed learning is an additional finding that strengthens these consistent findings. Similarly, Köse (2023), within the scope of his research on teachers' OLR and self-directed learning levels, concluded that both OLR and self-directed learning levels are high, and there is a positive relationship between them. In parallel with the literature and the present study's findings, Salah Dogham et al. (2022) concluded that university students with high levels of OLR also have good levels of self-directed learning skills. In addition, Forson and Vuopala (2019), who examined whether university students' self-directed learning, collaboration, and ICT skills predict readiness for online learning, showed that ICT skills were the most robust predictor and were followed by self-directed learning. Hence, it became clear that online educational resources and environments can help students develop the self-directed learning skills necessary to function well in online settings (Dabbagh & Kitsantas, 2004).

It has been highlighted in the previous studies that self-directed learning is one of the basic skills in the 21st century that will help individuals to continue lifelong learning (Guglielmino, 2013) and that students generally have more freedom of choice in an online learning environment than in face-to-face education (Williams & Hellman, 2004), which increases self-directed learning skills (Boekaerts, 1999). Because online learning settings foster self-regulated learning, as Selvi (2019) suggested, a self-directed learner takes more responsibility for learning and can make more independent choices. Independence is at the center of self-directed learning. In this case, it can be said that online learning environments have a positive role in supporting self-directed learning.

In addition, in a study conducted by Smith et al. (2003) with adult learners, it was found that one of the two elements reported by students for success in online learning environments was "having the capacity to navigate easily in the online environment" and the second was "self-control in online environments". There are also studies (Wei & Chou, 2020) indicating that students' discussion scores and satisfaction levels in online learning environments are directly related to their self-efficacy levels in computer/internet use. However, the problem seems that the items in this sub-dimension indicate that students are not very good at avoiding distractions from other online activities such as web browsing and instant chat and maintaining concentration on online learning tasks. Distractions have been variously emphasized in the literature as one of the crucial problems experienced in online learning environments (Resnik & Dewaele, 2021).

Moreover, the findings also indicate that participants are, to a certain extent, inclined towards active conversation and cooperation, which are essential for successful online language learning. Furthermore, a typical participant expresses a certain level of confidence in using online communication tools, including email and discussion boards, to communicate with peers and instructors. In online learning environments, students need to be able to possess specific skills to be successful (Gameel & Wilkins, 2019), such as communicating comfortably orally and in written form, uploading assignments, and getting feedback from the tutor. In addition, online learning, as long as it offers innovative and interactive content and is manageable, creates a desire and motivation to learn and makes learning attractive. (Dhull & Arora, 2017).

Although it is noteworthy that the participants did not have high self-confidence in this regard, it is worth emphasizing that these inadequacies can be compensated. This finding coincides with a previous study in which EFL learners rated themselves less motivated, negligent, inactive, and inept regarding technology (Karatas & Tuncer, 2020). Researchers emphasize that students frequently need more knowledge about effective learning techniques and how to use them (Dirkx et al., 2019) to fully understand and implement

strategy use in learning. So, it is essential that students and teachers are aware that these strategies can be taught and learned. It is also vital for teachers to include educational activities that foster these strategies (Lodge et al., 2018). Furthermore, peer contact during active participation in collaborative learning might benefit from learning a language. Participants' appreciation of the advantages of learning from and alongside peers, which promotes a cooperative and encouraging learning environment, is reflected in their belief in the effectiveness of peer coaching.

At this point, various factors that affect students' achievement in online environments that need to be underlined should not be overlooked. For example, some studies indicate that learners' perceived self-efficacy in internet use directly indicates their readiness level and success (Chung et al., 2020). Of course, having a certain level of knowledge is inevitable to navigate comfortably in the online environment. Indeed, some scholars have defined OLR as e-readiness—having the skills necessary to use electronic resources like the internet, e-learning materials, and multimedia technology (Kaur & Zoraini Wati, 2004; Watkins, 2003). In general, it indicates that individuals have the necessary abilities for written interactions in an online learning environment. Despite the dynamic and complex relationship between self-directed learning and OLR, it is seen that the effects of the variables differ significantly in both. For example, none of the independent variables of the study was found to be effective on SRL. However, "self-reported competency in using the internet" and "learning experience" variables were found to have a significant effect on OLR. Demir Kaymak and Horzum's (2013) study found a similar result, which states that OLR is positively related to interaction and experience in the online learning environment. Additionally, similar studies found that the use of technology and students' technical competencies significantly affects their OLR (Cho, 2012; Naresh et al., 2016; Watulak, 2012).

The results of the study emphasize that having experience or any training in online learning environments will have a positive effect on OLR. This association underscores the value of prior exposure or formal training in positively shaping individuals' preparedness for engaging effectively in online learning settings. In conclusion, individuals with prior experience or who have undergone specific training in online learning demonstrate a more favorable readiness to navigate and engage productively within online learning environments. This insight emphasizes the potential benefits of prior exposure or formal training in enhancing individuals' readiness for successful online learning experiences. In this respect, it coincides with the literature (Xie & Yang, 2020). Another emphasis that should be highlighted in the study is the effect of students' perceived technology competence on their OLR levels. In the literature, study findings indicate that perceptions of the learning environments used affect students' success in the learning process (Isha et al., 2021; Pan, 2020).

CONCLUSIONS

In conclusion, this study on foreign language learners' readiness for online learning and their self-directed learning skills has significantly contributed to the dynamics and complex patterns of online language education. Firstly, it was concluded that university students have a certain level of awareness about their own learning processes and the importance of self-directed learning in the language learning process. This level of awareness is one of the essential conclusions of the study, as it indicates that students are aware of their strengths and weaknesses and have the ability to identify their individual learning needs. The results also showed that the participants could monitor their own learning process, critical skills in self-directed learning, and critical thinking and problem-solving skills, which are vital in the foreign language learning process. On the other hand, it was revealed that they need improvement in developing their Interpersonal Skills and improving and diversifying learning activities. Although having a certain level of interest in different cultures and languages is a positive feature in terms of language learning, the motivating role of interpersonal interactions in the language learning process cannot be underestimated, and the weaknesses of the students in this regard are an issue that should be considered. The potential contribution of university students' social skills, such as maintaining positive relationships with the environment, easy cooperation, and a supportive learning environment to language learning, should be considered.

The second significant result is that university students' OLR levels, especially those who will take English courses through distance education throughout the year, are also at a medium level. Their inclination to

create and adhere to study plans, actively control their learning process, and seek assistance when needed, as well as their open-mindedness and readiness to acquire new skills, signifies their readiness for an online learning environment to some extent. The students' motivation towards online study environments highlights their adaptability and enthusiasm for new ideas and information in the online environment. Additionally, the results showed that the majority of college students possess the basic skills necessary for written interactions in an online learning environment. It was also concluded that the participants had little control over their online learning and needed further development in directing and managing their online learning processes. Moreover, it is noteworthy that students have a basic confidence level in using technology for online learning.

Finally, it was revealed that various independent variables had an impact on the participants' readiness levels for online learning. In particular, self-reported proficiency in using the internet and prior learning experience significantly impact students' readiness for online learning. In other words, students with higher levels of internet proficiency and those with more extensive learning experience feel more ready for online learning. Additionally, it should be noted that various independent variables do not have any effect on self-directed learning.

Implications & Limitations

The study's conclusions have significant implications and suggestions for foreign language instruction and educational settings. First and foremost, teachers should focus on supporting students to learn in a self-directed way by encouraging them to create clear learning goals, keep track of their progress, and modify their learning techniques as needed. In addition, it is essential to prioritize the development of students' interpersonal skills, which may be achieved through integrating group projects and peer cooperation opportunities into the curriculum, creating a nurturing learning environment. To accommodate a range of learning styles, language instructors should also incorporate interactive and multimedia components into their lessons to diversify the learning activities and create a lively online learning environment. Institutions should consider introducing online learning preparation programs to help students become more proficient online communicators, strengthen their control over the learning process, and design efficient study schedules. Additionally, providing internet competency training programs will provide students with crucial digital skills such as conducting effective online research, assessing online sources critically, and using digital tools for language learning. The community of foreign language teachers may improve students' readiness for self-directed language learning, foster supportive and stimulating learning settings, and help students become better equipped for language learning online by using these practices.

Author notes: A preliminary version of this article was presented in 21st INGED International Conference, which was held between 3-5 November 2023 in Kayseri, Türkiye.

Author contributions: **GG:** designing article & writing report of article; **MNK:** language editing & data collection; & **OK:** data collection & analyzing. All authors approved the final version of the article.

Funding: The authors received no financial support for the research and/or authorship of this article.

Ethics declaration: The authors declared that the study was approved by the Ethics Committee at Inonu University on 21 September 2023 (Approval code: code here). Written informed consents were obtained from the participants.

Declaration of interest: The authors declare no competing interest.

Data availability: Data generated or analyzed during this study are available from the authors on request.

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