

Examining of preparatory and first-year students' online learning readiness and presence in English language courses

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Highlights

- University students' readiness and presence are important for effective online education
- Preparatory and freshmen students' online readiness and presence were high during Covid-19 pandemic
- University students' online readiness and presence differ various demographic variables
- Before commencing university, students can take comparable online education orientation programs from public or university continuing education services.

Abstract

This study aims to investigate university students' readiness and presence towards online teaching in the context of various variables. The study is designed as survey research, one of the quantitative models. The sample of the study consists of 318 preparatory and first-year university students studying at a university in the Eastern Anatolian Region of Turkey. The data were obtained using the "Readiness for Online Learning Scale" and "The Community of Inquiry Model" scale. Descriptive statistics and inferential were used in the analysis of the data. As a result of the study, it was revealed that university students' readiness levels for online learning and their social, cognitive and teaching presence were high. In addition, it was determined that university students' readiness levels and perceptions of presence differ statistically according to age, gender, education level, monthly income of the family and connection device. The implications were discussed in terms of theoretical insights and administration for online learning.

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1. Introduction

Higher education has recently changed from traditional education to technology-oriented teaching, especially with technological advances. The increasing use of technology in education has enhanced student learning competencies and teaching options (Cappel and Hayen, 2004). Online education has been implemented in higher education institutions worldwide, especially since the Covid-19 epidemic. Naidu (2006) proposed that online learning involves employing electronic means online or offline for educational purposes. According to Durak et al. (2020), a significant number of individuals within the university community have utilized video conferencing platforms such as Zoom, Google Meet, and Learning Management Systems (LMS) to facilitate the sharing and delivery of their educational courses. These instructional aids demonstrate efficacy in fostering the development of communicative competence and facilitating the practice of pronunciation skills (Kohnke & Moorhouse, 2022). As online learning requires students and teachers to master new abilities, educators and learners should have technical knowledge about using computers in online learning, and students' learning styles, preferences, and methods affect teaching (Kılıç et al., 2016). These developments in technology have also been reflected in language teaching, and

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it has become clear that technology-supported language learning is more beneficial in a way that is independent of time and space (Filiz & Kurt, 2022). Indeed, Alabay (2021) stated in his study that online language education is more beneficial than face-to-face education. In addition, students and teachers' attitudes regarding online communication and engagement also affect the learning process, according to studies (Alexander et al., 2003). Furthermore, digital technology presents new possibilities and issues for second language education and online language teaching (Reinhardt, 2022). Consequently, scientists are interested in how language teachers might use linguistic information more effectively by using appropriate technology in an educational environment (Tseng et al., 2020).

Online learning has been utilized globally and in Turkey in recent years, in form of emergency remote teaching in all schools and higher education at the K12 level especially since March 2020 amid the coronavirus outbreak (Saritaş & Barutçu, 2020). Due to the pandemic, technology has been utilized in online education, particularly through Google meet and Zoom (Lockee, 2021). Students who participated in online education faced numerous issues and were unprepared (Adedoyin & Soykan, 2020). Students may face insufficient computer literacy and an excessive workload, boredom, worry, and dissatisfaction (Aristovnik et al. 2020); autonomous learning, time management, and motivation maintenance in online education (Lee et al. 2021). Various studies have investigated the satisfaction levels of students with regard to education, revealing that university students' satisfaction levels towards online education were found to be moderate (Atasoy et al., 2020; Şimşek et al., 2021; Turan et al., 2022; Önal & Önal, 2023). The achievement of students in online learning is contingent upon their ability to effectively self-manage and feel at ease with the learning environment (Smith et al., 2003). The current situation has revealed that students may encounter various challenges in the realm of online education. These challenges encompass technological obstacles, such as the absence of essential electronic tools, as well as pedagogical challenges, internal (loyalty, cooperation) and external (gamification, feedback) factors (Uçar and Saritepeci, 2022) including deficiencies in digital skills among both teachers and students. Additionally, social difficulties may arise due to the limited human interaction between teachers and learners in the online learning environment (Ferri et al., 2020). Kaymak and Horzum (2013) have explored the impact of online readiness on students' growth and achievement in the context of online learning. The utilization of online education is currently widespread, and there is a possibility that digital learning will emerge as the predominant educational paradigm due to advancements in technology and the implementation of novel teaching approaches. When conducting research on online learning, it is of utmost importance to ascertain the readiness and presence of students towards emerging technologies and systems (Çakır & Horzum, 2015; Tang et al., 2021; Telli & Altun, 2020).

1.1. Theoretical Framework

Online readiness has gained importance as online trainings have become more popular. Online readiness refers to people's willingness to use network-based tools (Dada, 2006). It's important to measure and enhance online readiness (Rohayani & Sharipuddin, 2015). Online education leads to social communication challenges and less student participation than face-to-face education (Robb & Sutton, 2014). It is crucial to identify online education's potential challenges and solutions (İlhan and Çetin, 2013). Online learning eliminates physical and time limits and provides rapid feedback on student achievement. Online readiness influences the online education process. Personal motivation, time management, email, using asynchronous and synchronized live chat platforms like Meet and Zoom, and accepting responsibility for learning are vital for online learning (Tang et al., 2021). The indicators of individuals' readiness for online learning, as supported by the findings of Martin et al. (2020), include knowledge of course design and course communication, time management skills, and technical competences. The study focused on preparatory and first-year students' online learning readiness.

This study also aims to examine students' social (SP), cognitive (CP), and teaching presence (TP) perceptions within the Community of Inquiry Model (COI) proposed by Garrison et al. (2000). The COI paradigm recognizes that teaching presence affects both social and cognitive presence (Garrison et al., 2010), while accepting social presence as a mediating element between cognitive and teaching presence

(Garrison et al., 2010), cognitive presence as the focus and achievement of the learning experience (Vaughan & Garrison (2005)). The COI model is a framework that describes the student-teacher-content interaction. Each component supports the others through proper discourse favorable online learning environment, and relevant knowledge, according to Garrison (2000). While Garrison et al. (2010) emphasize the COI model's need for teachers to be in the online classroom employing SP, CP, and TP strategies, Authors et al. (2019) argue that these factors are strong predictors for student satisfaction. Garrison et al. (2010) noted that the three components of the (COI) and their interaction are critical to enhancing and maintaining online education quality. Garrison et al. (2010) stated “teaching presence facilitates social and cognitive presence and plays an important role in online learning and expresses the role of the teacher and their responsibilities in the teaching environment”. Lanyshevsky (2013) and Tayeh (2021) asserted that the active role of the teacher in online learning as in face-to-face education affects student satisfaction and positively affects students in fulfilling their responsibilities. Cognitive presence contributes to problem-solving and critical thinking in higher education, is a practical research process used to construct meaning and validate understanding, and expresses the individual's presence in the learning process and is the most stimulating factor in the online learning environment. In all disciplines, learner perceptions of cognitive and teaching presence are more essential than affective learning results, and online teaching is rated highest (Lim & Richardson, 2021). To effectively address online learning settings, support students' online learning achievements, and have productive online learning experiences, students' social, cognitive, and teaching presences should be determined. This study aims to identify preparatory and first-year university students' online presence and readiness and contribute to the literature.

2. Literature

In research on student readiness for online education, higher education students were psychologically ready (Demir Öztürk & Eren, 2021; Martin et al. 2020; Alsancak Sırakaya, 2016; İlhan & Çetin 2013), motivated (Rafique et al. 2021), and technically and technologically ready (Linjawi and Alfadda, 2018). The extensive usage of communication technologies is increasing students' computer-internet and online communication self-efficacy (Aktaş & Çaycı, 2013). Computer skills and technical knowledge affect students' readiness (Wei and Chou, 2020), and low readiness levels in higher education significantly affect online learning motivation (Martin et al., 2020).

Research investigating the representation of students in literary works is a prevalent topic in academic literature as well. Based on prior research, it has been established that the presence of social elements has a significant impact on various aspects of students' experiences. Specifically, social presence has been found to affect students' levels of satisfaction (Bulu, 2012), the degree of entertainment they derive from their educational activities (Mackey & Freyberg, 2010), the level of interaction they engage in (Sung & Mayer, 2012), as well as their ability to engage in cooperative learning (Mackey & Freyberg, 2010). There is a positive correlation between university students' perspectives on social and cognitive presence and their academic advancement, according to earlier research by Guo et al. (2021) and Kılıç et al. (2016). The authors, Moore and Miller (2022), underscored the significance of social, cognitive, and teaching presence in relation to student achievement within the context of higher education. Conversely, Rosser-Majors et al. (2022) highlighted the importance of effectively utilizing COI variables in online instruction, as doing so can enhance students' adherence to the course and overall success, thereby enhancing their academic achievements. Developing a sense of social, cognitive, and teaching presence is imperative within the context of online learning and necessitates ongoing attention and effort (Wallace, 2021). According to Ay and Dağhan (2022), the efficacy of the COI process in online education has been observed among students. They further suggest that this model has the potential to target the diverse characteristics of students. Additionally, the authors recommend conducting further research to examine the impact of various factors on the COI process. The previous studies (Aksoy et al., 2022) have explicitly emphasized the importance of ongoing research on students' perceptions of presence in the context of online teaching.

Hence, a comprehensive analysis of the factors influencing online learning in higher education, along with an exploration of existing research on the continuity of online learning, will yield novel and efficacious approaches and methodologies. For the purpose of this study, participants were selected from a group of preparatory and first-year students, as they are likely to experience online learning in the presence of other students and instructors for the first time. The identification of potential challenges can assist pertinent organizations and individuals in the process of preparing and strategizing for online education. Certain students encounter difficulties when it comes to online learning, particularly in terms of their readiness (Ferri, 2020). The existing body of literature indicates there is a lack of research focused on preparatory and first-year students (Alshammari et al. (2018); Lee & Ting (2021). Consequently, this study aims to contribute novel resources to address this gap. There is a lack of research investigating the influence of familial wealth on the readiness and perceptions of presence among online students. Revealing the impact of indicated variables on the readiness and presence of students will contribute to the advancement of the field. Literature shows that online readiness demands ongoing study (Wallace, 2021). We anticipate the enhancement of education quality and efficiency to be facilitated by the improvement of individuals' social, cognitive, and teaching readiness for online education. The assessment of students' social, cognitive, and educational presence is crucial for optimizing the efficiency and efficacy of online education planning. The objective of this study is to assess the levels of readiness and presence among preparatory and first-year university students for online English classes, with a focus on various demographic factors including gender, education level, family income, age, and connecting device. Within the framework of this particular context, the present study aims to elucidate and provide insights into these questions.

1. What is the level of social, cognitive and teaching presence and readiness of university preparatory and first-year students for online learning?
2. Is there a link between university preparatory and first-year students' social, cognitive, and teaching presence and their online learning readiness?
3. Does university preparatory and first-year students' online learning readiness and presence differ by gender, education level, family income, age, and connecting device?

3. Methodology

3.1. Research Model/Design

This study used a quantitative cross-sectional survey to examine preparatory and first-year university students' online readiness and presence toward online education, as well as the influence of gender, department, age, family income, and course attendance on online readiness and presence. In a cross-sectional survey model, variables across a particular time interval are collected by a single measurement according to their features, and researchers aim to discover the characteristics of a group and determine how that group is distributed by one or more variables (Fraenkel et al., 2012). This study also employed relational and comparative models to uncover variable relations and independent variable effects on dependent variables.

3.2. Data Collecting Tools

The survey has three components. In the first part, students fill out a demographics questionnaire. In the second part, the Online Learning (OLRS) developed by Hung et al. (2010) and adapted to Turkish by İlhan and Çetin (2013) was used to measure the university students' readiness levels for online learning. The scale comprises 18 items and five factors: Computer and Internet Self-Efficacy (CISE), Self-Learning (SL), Learner Control (LC), Motivation to learn (MTL), and Online Communication Self-Efficacy (OCSE). The scale ranges from strongly disagree (18 points) to strongly agree with points (90 points). Scale reliability was .95. The increase in the scores obtained from the sub-dimensions of the OLRS and the overall scale indicates a high level of readiness for online learning (İlhan & Çetin, 2013).

The final part of the survey comprised Community of Inquiry Survey (COISURVEY) scale developed by Garrison et al. (2000) and modified to Turkish by Olpak and Kılıç Çakmak (2018) to measure the university students' social (SP), cognitive (CP), and teaching presence (TP). The scale consists of 34 Likert-type items linked to teaching presence, social presence, and cognitive presence. Strongly disagree (34) and strongly agree (170) were the scale's extremes. Internal consistency coefficients were .96 for TP, .95 for SP, and .97 for CP. Internal reliability was .95 in this study. The fact that the scores obtained from the overall scale and its sub-dimensions are close to the highest possible score indicates that students have a high level of online presence (Olpak & Kılıç Çakmak, 2018).

3.3. Sampling or Study Group

This study was conducted with 318 preparatory and first-year students studying at a state university in the Eastern Anatolia Region of Turkey. Optionally, preparatory class students undergo one year of preparatory education in this discipline before beginning their studies in their field of specialization. Consequently, they are expected to have rectified their weaknesses in their respective sectors. First-year students, on the other hand, begin their study without preparatory education. Information on demographic data about the participants is given in Table 1. The convenience sampling method was used in the selection of students.

Table 1.

Demographic Information of the Students

		Frequency	% (percent)
Gender	Female	193	60.7%
	Male	125	39.3%
Age	17- 20	175	55.0%
	21- 23	111	34.9%
	24 and above	32	10.1%
Income of family	0-3000 TL	224	70.4%
	3000-5000 TL	59	18.6%
	5000 TL and above	35	11.0%
Education level	Associate	121	38.1%
	Undergraduate	197	61.9%
Class	Preparatory	27	8.5%
	First-year	291	91.5%
Connecting device	Smartphone	255	80.2%
	Computer	63	19.8%

3.4. Validity and Reliability

The researchers employed two distinct surveys in their study. The study utilized the Online Learning Readiness Scale (OLRS) which was originally developed by Hung et al. (2010) and later its' reliability and validity was conducted and adapted to Turkish by İlhan and Çetin (2013) to assess the readiness of students for online learning. They found the reliability of the scale as 0.95. The second instrument employed in this study was the Community of Inquiry Survey (COISURVEY) scale, originally developed by Garrison et al. (2000) and its' reliability and validity was conducted and adapted to Turkish by Olpak and Kılıç Çakmak (2018). This tool was utilized to assess the social presence (SP), cognitive presence (CP), and teaching presence (TP) of students. According to Olpak and Kılıç Çakmak's (2018) study, the internal consistency coefficients for TP, SP, and CP were .96, .95, and .97, respectively. The study demonstrated a high level of internal reliability, with a coefficient of .95. Hence, it is evident that the instruments employed in the research exhibited a high degree of reliability and validity.

3.5. Research Procedures

During the 2021-2022 pandemic, students took an online English course. Google Meet and Google Classroom were used for synchronous and asynchronous online classes. Instructors carried out question-and-answer sessions and student presentations to make online lessons interactive. Teachers gave students

tasks and exercises via Google Classroom, email, or WhatsApp to reinforce the material after class. Online classes were obligatory, and the lecturer has given course videos via Google Classroom for students who could not attend. Therefore, all students then had the opportunity to watch these lecture videos whenever and wherever they wanted. Within the scope of the study, data were gathered from the students through an online survey at the end of the semester. The students participated in the study voluntarily. An online survey link was shared with 800 students, 318 students filled out questionnaires, and the University's ethics committee commission approved the study.

4. Data Analysis and Results

In this study, the total scores of the scale and sub-dimension responses created continuous variables, and these scores were factored into the calculation. Examining the skewness and kurtosis coefficients determined if the continuous measurements were distributed normally or not. The skewness and kurtosis coefficients for all scales fell within the range of ± 1.5 , and parametric tests were conducted in accordance with Tabachnick, et al. (2007), as the measurements were normally distributed. For continuous variables in the study, descriptive statistics include mean, standard deviation, minimum, and maximum; for categorical variables, descriptive statistics are expressed as numbers and percentages. The independent sample t-test and one-way analysis of variance (ANOVA) were used to compare scale scores according to categorical groupings. Using Levene's test for equality of variances, the homogeneity of the variances was examined, and it was established that the variances were distributed homogeneously. After doing an analysis of variance, the "Duncan test" was utilized to identify the various groups. Efe et al. (2000) reported that these tests found even tiny changes between groups to be statistically significant, and Lawrence et al. (1984) noted that the test was straightforward and successful for data comprising more than two experimental groups and a completely random design. The linear link between scales and sub-dimensions was determined by correlation analysis, and Pearson correlation coefficients were produced. The Pearson Correlation coefficient ranges from -1 to 1, and a relationship level of ± 70 or higher indicates a strong association between the variables (Karasar, 2007). In the computations, a significance threshold of 5% was assumed, and the SPSS (IBM SPSS for Windows, version 25) statistical package program was utilized.

Descriptive statistics

Table 2 contains descriptive statistics about the students' scale and sub-dimension scores. Table 2 shows a relationship between preparatory and first-year university students' social, cognitive, and teaching presence and their online learning readiness.

Table 2.

Overall descriptive statistics for scale and sub-dimension total scores.

	N	Min.	Max.	M	SD
COISURVEY	318	34.00	170.00	122.22	40.74
TP	318	13.00	65.00	48.06	16.36
SP	318	9.00	45.00	31.12	10.86
CP	318	12.00	60.00	43.04	14.90
OLRS	318	18.00	90.00	63.83	20.65
CISE	318	3.00	15.00	9.80	3.49
SL	318	5.00	25.00	18.12	6.08
LC	318	3.00	15.00	10.24	3.53
MTL	318	4.00	20.00	15.00	5.32
OCSE	318	3.00	15.00	10.64	3.87

Table 2 shows that students' social, cognitive, and teaching presence were high. Teaching presence is the highest, followed by cognitive and social presence. When students' online teaching readiness levels are analyzed, it is seen that both computer internet self-efficacy and learner control of students are at medium level, while. Self-learning, motivation to learn, readiness levels, and online communication self-efficacy were also high.

Relationship between variables

Table 3 shows the comparison test results between social, cognitive, teaching presence, online learning readiness, and student sub-dimensions.

Table 3.

The relationship of scale and sub-dimensions to each other

	M	SD	COI SURVEY	TP	SP	CP	OLRS	CISE	SL	LC	MTL
TP	48.06	16.36	.965	1							
SP	31.11	10.86	.956	.872	1						
CP	43.04	14.90	.976	.905	.927	1					
OLRS	63.83	20.65	.760	.717	.720	.766	1				
CISE	9.80	3.496	.613	.545	.629	.618	.841	1			
SL	18.12	6.08	.767	.725	.719	.778	.949	.785	1		
LC	10.24	3.53	.688	.651	.650	.692	.940	.766	.847	1	
MTL	15.00	5.32	.711	.688	.642	.720	.944	.666	.873	.879	1
OCSE	10.64	3.87	.689	.652	.665	.682	.927	.734	.809	.870	.883

Table 3 shows the comparison test results (Pearson Correlation Coefficient) between social, cognitive, teaching presence online learning readiness, and its sub-dimensions. Examining the table's data shows that all scales and sub-dimensions have a positive linear comparison ($p < 0.05$, $r = .652-.976$). The presence scale and online learning readiness scales are statistically related ($p < 0.05$, $r = .760$).

Online learning readiness and presence according to gender

Table 4 shows the t-test results revealing differences in the presence and online learning readiness of the students according to gender.

Table 4.

Comparison findings of scale and sub-dimensions by gender

		N	M	SD	t	p	d
COISURVEY	Female	193	128.43	35.48	3.24	.001	.391
	Male	125	112.64	46.27			
TP	Female	193	50.66	14.20	3.38	.001	.372
	Male	125	44.04	18.59			
SP	Female	193	32.24	9.71	2.31	.021	.282
	Male	125	29.37	12.28			
CP	Female	193	45.52	13.25	3.59	.001	.411
	Male	125	39.21	16.47			
OLRS	Female	193	66.30	18.04	2.51	.013	.290
	Male	125	60.04	23.71			
CISE	Female	193	9.85	3.19	.28	.777	.000
	Male	125	9.73	3.93			
SL	Female	193	18.98	5.42	3.01	.003	.333
	Male	125	16.80	6.79			
LC	Female	193	10.62	3.13	2.23	.026	.282
	Male	125	9.67	4.02			
MTL	Female	193	15.83	4.63	3.33	.001	.392
	Male	125	13.72	6.03			
OCSE	Female	193	11,00	3.50	1.93	.055	.282
	Male	125	10.10	4.35			

As seen in Table 4, computer-internet self-efficacy and online communication self-efficacy sub-dimension scores do not differ by gender ($p > 0.05$). Teaching, social, cognitive presence, self-learning, learner control, and motivation to learn demonstrate a statistical difference in favor of female students ($p < 0.05$). Cohen (1988) categorized effect sizes as small (0.2), medium (0.5), and large (0.8). The effect size values are at a medium level.

Online learning readiness and presence according to age

Table 5 shows that all scale and sub-dimension scores were varied according participants' age ($p < 0.05$). Duncan test was used to compare groups. The Duncan multiple comparison test findings show that participants ages 17-20 and 24 and above are in the same group and have similar averages. 21-23-year-olds are very different from 17-20 and 24 and above ages. 21-24-year-olds had the lowest average scores.

Table 5.

Comparison findings of scale and sub-dimensions according to age

		Sum of Squares	df	Mean Squares	f	p	r
COISURVEY	Between Groups	21252.901	2	10626.451	6.629	.002	0.40
	Within Groups	504928.797	315	1602.949			
TP	Between Groups	3673.736	2	1836.868	7.120	.001	0.43
	Within Groups	81265.007	315	257.984			
SP	Between Groups	831.708	2	415.854	4.546	.011	0.28
	Within Groups	28815.741	315	91.479			
CP	Between Groups	2818.233	2	1409.117	6.567	.002	0.40
	Within Groups	67587.150	315	214.562			
OLRS	Between Groups	8798.135	2	4399.067	10.956	.000	0.63
	Within Groups	126480.686	315	401.526			
CISE	Between Groups	247.923	2	123.961	10.765	.000	0.52
	Within Groups	3627.376	315	11.515			
SL	Between Groups	621.184	2	310.592	8.803	.000	0.53
	Within Groups	11114.530	315	35.284			
LC	Between Groups	233.125	2	116.562	9.838	.000	0.58
	Within Groups	3732.250	315	11.848			
MTL	Between Groups	424.451	2	212.225	7.814	.000	0.47
	Within Groups	8555.536	315	27.160			
OCSE	Between Groups	319.846	2	159.923	11.324	.000	0.67
	Within Groups	4448.707	315	14.123			

When the impact value of students according to their age is examined, the teaching and cognitive presence are at a moderate level, and their social presence is close to the medium. When their readiness for online teaching is examined, the learner motivation (MTL) is at a moderate level, while the OLRs and all other sub-dimensions are at a high level ($r > .50$). Cohen (1992) categorized impact values as small ($r: .10$), medium ($r: .30$), and high ($r: .50$).

Online learning readiness and presence according to monthly family income

Table 6 shows the comparison test results between students' social, cognitive, teaching presence, and online learning readiness, and sub-dimensions.

Table 6.

Comparison findings of scale and sub-dimensions according to monthly family income

		Sum of Squares	df	Mean Squares	f	p	r
COISURVEY	Between groups	16308.32	2	8154.16	5.03	.007	.30
	Within groups	509873.36	315	1618.64			
	Total	526181.69	317				
TP	Between groups	2664.25	2	1332.12	5.10	.007	.31
	Within groups	82274.48	315	261.18			
	Total	84938.74	317				
SP	Between groups	828.39	2	414.19	3.56	.029	.22
	Within groups	36617.06	315	116.24			
	Total	37445.45	317				
CP	Between groups	2272.38	2	1136.19	5.25	.006	.32
	Within groups	68133.00	315	216.29			
	Total	70405.38	317				
OLRS	Between groups	6594.67	2	3297.33	8.07	.001	

	Within groups	128684.14	315	408.52			.48
	Total	135278.82	317				
	Between groups	163.44	2	81.72			
CISE	Within groups	3711.85	315	11.78	6.93	.001	.43
	Total	3875.29	317				
	Between groups	518.23	2	259.11			
SL	Within groups	11217.48	315	35.61	7.27	.001	.44
	Total	11735.71	317				
	Between groups	169.36	2	84.68			
LC	Within groups	3796.01	315	12.05	7.02	.001	.42
	Total	3965.37	317				
	Between groups	338.34	2	169.17			
MTL	Within groups	8641.64	315	27.43	6.16	.002	.37
	Total	8979.98	317				
	Between Groups	207.60	2	103.80			
OCSE	Within groups	4560.94	315	14.47	7.16	.001	.43
	Total	4768.553	317				

Table 6 shows that all scale and sub-dimension scores vary according students' family monthly income ($p < 0.05$). Duncan's test was used to compare groups. When the Duncan multiple test results are evaluated, individuals' families with monthly income of 3001-5000 and 5001 and above are similar on average, and their average scale and sub-dimension scores are statistically greater than those with monthly incomes between 0-3000 TL. The OLRs's income levels and sub-dimensions lead to considerable variances. When the effect size of the difference between the groups is examined, social presence is close to moderate while teaching and cognitive presence are moderate. When the OLRF is examined, its sub-dimensions are close to high.

Online learning readiness and presence according to education level

Table 7 shows the comparison test results between social, cognitive, teaching presence, online learning readiness, and sub-dimensions.

Table 7.

Comparison findings of scale and sub-dimensions according to education level

		N	M	df	t	p	r
COISURVEY	Associate	121	111.49	47.44	-3.75	.001	.20
	Undergraduate	197	128.81	34.52			
TP	Associate	121	44.08	18.80	-3.45	.001	.18
	Undergraduate	197	50.50	14.18			
SP	Associate	121	28.60	12.50	-3.28	.001	.18
	Undergraduate	197	32.66	9.43			
CP	Associate	121	38.80	17.00	-4.06	.001	.20
	Undergraduate	197	45.64	12.81			
OLRS	Associate	121	61.13	24.39	-1.83	.067	.09
	Undergraduate	197	65.50	17.84			
CISE	Associate	121	9.67	3.96	.52	.603	.000
	Undergraduate	197	9.88	3.18			
SL	Associate	121	17.30	6.93	-1.89	.059	.09
	Undergraduate	197	18.6345	5.45			
LC	Associate	121	9.8264	4.19	-1.67	.095	.14
	Undergraduate	197	10.5076	3.04			
MTL	Associate	121	14.1405	6.04	-2.28	.023	.09
	Undergraduate	197	15.5381	4.76			
OCSE	Associate	121	10.1818	4.45	-1.68	.093	.00
	Undergraduate	197	10.9340	3.45			

Table 7 shows that the OLRs scale and its sub-dimensions, computer-internet self-efficacy, self-learning, learner control, and online communication self-efficacy, do not differ according to education level ($p > .05$).

Teaching presence, social presence, cognitive presence, and motivation to learn sub-dimension scores on the COISURVEY scale demonstrate a statistically significant difference in favor of undergraduate students ($p < .05$).

Online learning readiness and presence according to class level

Table 8 shows the comparison test results between social, cognitive, teaching presence, online learning readiness, and student sub-dimensions.

Table 8.

Comparison findings of scale and sub-dimensions according to class level

		N	M	SD	t	p	r
COISURVEY	Preparatory	27	144.40	21.41	2.99	.003	.34
	First-year	291	120.16	41.51			
TP	Preparatory	27	58,00	6.82	3.35	.001	.41
	First-year	291	47.14	16.69			
SP	Preparatory	27	35.55	7.28	2.23	.026	.26
	First-year	291	30.70	11.06			
CP	Preparatory	27	50.85	9.30	2.87	.004	.30
	First-year	291	42.31	15.12			
OLRS	Preparatory	27	71.81	14.55	2.10	.036	.21
	First-year	291	63.09	21.00			
CISE	Preparatory	27	10.25	3.53	.70	.484	.16
	First-year	291	9.76	3.49			
SL	Preparatory	27	21.33	4.59	2.89	.004	.36
	First-year	291	17.83	6.12			
LC	Preparatory	27	11.25	2.90	1.55	.121	.19
	First-year	291	10.15	3.57			
MTL	Preparatory	27	17.48	3.35	2.54	.011	.34
	First-year	291	14.77	5.41			
OCSE	Preparatory	27	11.48	3.26	1.16	.244	.16
	First-year	291	10.57	3.92			

In Table 8, the OLRs scale and its sub-dimensions, computer-internet self-efficacy, self-learning, learner control, and online communication self-efficacy, do not differ according class level ($p > 0.05$). Teaching presence, social presence, cognitive presence, and motivation to learn sub-dimension scores on the COISURVEY scale demonstrate a statistically significant difference in favor of preparatory ($p < .05$).

Online learning readiness and presence according to connection device

Table 9 shows the comparison test results between social, cognitive, teaching presence, online learning readiness, and sub-dimensions.

Table 9.

Comparison findings of scale and sub-dimensions according to the connecting device

		N	M	df	t	p	r
COISURVEY	Smartphone	255	120.16	41.30	-1.82	.069	.12
	Computer	63	130.57	37.52			
TP	Smartphone	255	47.35	16.66	-1.56	.120	.09
	Computer	63	50.93	14.87			
SP	Smartphone	255	30.55	10.98	-1.86	.063	.14
	Computer	63	33.39	10.16			
CP	Smartphone	255	42.25	15.11	-1.90	.057	.14
	Computer	63	46.23	13.66			
OLRS	Smartphone	255	62.49	21.28	-2.36	.019	.18
	Computer	63	69.30	16.95			
CISE	Smartphone	255	9.584	3.54	-2.31	.021	.16
	Computer	63	10.71	3.14			

SL	Smartphone	255	17.77	6.27	-2.11	.035	.17
	Computer	63	19.57	5.00			
LC	Smartphone	255	10.05	3.60	-1.97	.049	.16
	Computer	63	11.03	3.14			
MTL	Smartphone	255	14.65	5.46	-2.35	.019	.21
	Computer	63	16.41	4.46			
OCSE	Smartphone	255	10.41	4.00	-2.12	.035	.14
	Computer	63	11.57	3.18			

In Table 9, the average sub-dimension scores of computer-connected students are high on the COISURVEY scale, but the averages do not differ according internet connection tool ($p>0.05$). The CRC scale and sub-dimension scores differ statistically in favor of computer-connected students ($p<0.05$). The effect sizes are low in all scales and sub-dimensions.

5. Findings and Discussions

This study aims to investigate university students' perceptions of their online learning readiness, their social, cognitive, and teaching presence in relation to their age, gender, education level, monthly family income, and connection device to online courses. In addition, the significance of the relationship between the scale and its sub-dimensions was investigated.

The study's participants were found to have strong social, cognitive, and teaching presence, which is in line with Kılıç et al (2016). Teaching and cognitive presence appear to be higher than social presence. To make their teaching more varied and efficient, teachers should present the course in several ways, encourage students to think critically and use a variety of resources. According to Jiang et al. (2021) and Khatoony & Nezhadmehr, (2020) online learning platforms facilitate the ability of educators to upload a variety of instructional materials and assignments, such as texts, pictures, video, or audio recordings. These platforms also enable teachers to engage in communication with students and provide support for learning in both traditional face-to-face and blended instructional settings. This study showed that university preparatory and first-year students are better prepared for online learning. Garrison et al. (2001) noted that the online teacher's role correlates with cognitive presence. Online students are less socially competent due to their inability to build intimate ties with peers (Marino & Reddick, 2013). To improve students' online social presence, it is essential to include activities that enhance student participation in group discussions (Wang et al., 2022).

University preparatory and first-year online learning readiness is around medium. Computer-internet self-efficacy and learner control were both moderate. Self-learning, learner control, motivation to learn, and online communication self-efficacy scored highest. Motivation for learning and online communication self-efficacy were all above average, showing university students were well-prepared in these areas, students can use online learning resources efficiently, and are not distracted by talking or surfing the web during instruction. Parallel to this conclusion Demir Oztürk and Eren (2021) found that university students were ready for online learning in some sub-dimensions such as online communication self-efficacy. Similarly, Alsancak Sırakaya (2016) found that university students were prepared in similar sub-dimensions. Additionally, Sevim-Çırak et al. (2023) found e-learning readiness of the students as high in their study. According to Aktaş and Çaycı (2013), the high levels of readiness for learning and online communication self-efficacy among students are due to the rising use of information and communication technology. Due to the extensive usage of social media platforms by students in their daily lives, the level of online communication might be considerable. They must have computer-internet skills, though. This may mean that K-12 information technology education is inadequate.

The positive correlation between the presence and online readiness indicates how well these scales work together. Ready-for-online learning students will have a high level of teaching, cognitive, and social presence. According to Authors et al. (2019) social, cognitive, and teaching presence affect online student satisfaction. Ağ and Dağhan (2022) and Wallace (2021) asserted that online readiness and social, cognitive,

and teaching presence are vital for online education, and students' high perceptions of these factors affect their online readiness.

Similar to Alsancak Sırakaya (2011), the impressions of social, cognitive, and teaching presence for online learning were stronger among female participants than male participants in this study. The readiness levels of female participants for online learning did not differ statistically in the CS and OCS sub-dimensions; however, there was a statistically significant difference in favor of females in the SL, LC, and MTL sub-dimensions. This result is in line with those of Gerçek et al (2010). In these sub-dimensions, female individuals demonstrated high perceptions of readiness and presence. The average scale and sub-dimension scores for female participants were greater than for male individuals. Reio and Davis (2005) reached similar conclusions. The reason may be that the female participants are more interested in English classes, more engaged, more ready to study languages, and more socially proficient in language use, especially on social media.

When the students' readiness toward online learning and their presence to online learning were examined according to their level of education, it was discovered that the students' readiness toward online learning did not vary according to level of education, namely, whether the student was in the undergraduate or associate degree department did not affect their readiness for online learning. This result is parallel to olpak and Horzum's study (2015). In contrast, Hung et al. (2010) and Peng et al. (2006) discovered that learners in higher grades showed more computer and internet self-efficacy than students in lower grades. The difference may be due to the fact that students in upper grades may have attended computer classes for several years, resulting in enhanced computer and internet self-efficacy. The Social, cognitive, and teaching presence of students varied significantly according level of education, favoring undergraduates. This is because the test scores and academic success of associate degree students are lower than those of undergraduates. According to Daspit and D'Souza (2012), undergraduates display increased social, cognitive, and teaching presence. The research indicated that the online learning readiness and perceptions of the presence of preparatory students were superior to those of university first-year. This may be due to the fact that preparatory students were more eager to start university or concentrated more on the courses and new environment.

The average scores of participants with monthly incomes of 3001-5000 and 5001 and above on all scales and all sub-dimensions were higher than those with monthly incomes between 0-3000. Higher-income students are more prepared for online learning and had higher perceptions of social, cognitive, and teaching presence. The student's financial comfort increases their readiness for online courses and their perception of presence. This study also explored if students' online learning connecting device affected their readiness or impression of social, cognitive, and teaching presence. According to the scale, students' connection to the course with a mobile phone or computer did not affect their social, cognitive, or teaching perceptions of presence, but it did affect their readiness for online learning in all sub-dimensions (CS, SL, LK, MTL, and OCS) with a moderate effect size. This result is in line with Yakar and Yıldırım Yakar (2020) and Kırmacı et al. (2022). They stated the course's tool prepared students for online learning. Accordingly, it can be said that students who connect to the course via computer are more ready for online learning than students who are connected to the course with a mobile phone. It can be argued that utilizing a computer to access the course material is a more practical and suitable approach for online education.

In this study, which aims to reveal the readiness levels of university students for online learning and the presence, the effect of age factor was examined. As a result of the research, it was determined that the readiness levels of the students for online learning and their presence differed in all age ranges. It was determined that the participants in the 21-23 age range differed significantly from the participants aged 17-20 and 24 and over, and that the students in the 21-23 age range had the lowest score. It was also found that participants aged 24 and over had higher levels of readiness for online learning than participants aged 17-20 and 21-23. As a matter of fact, Hung et al. (2010) stated in their study that the students in the upper grade, that is, the older students, had higher levels of readiness for online learning compared to other students, and that they were more ready in skills such as computer and internet self-efficacy, learner control,

online communication self-efficacy. However, it was found that the perceptions of presence were higher in the 17-20 years and 24 and over age range than the participants in the 21-23 age range. This may be because participants between the ages of 17-20 are new so they are more eager and 24 and over have been more exposed to online education. Thus, it was determined that age is an important factor in determining students' readiness levels and perceptions of presence in online learning. In other words, as the student's experience with online communication increases, it can be said that the level of readiness for online education increases.

6. Limitations and Suggestions

There are also some limitations in this study, which examines the readiness and presence of university students for online learning. To begin with; the research was conducted only with the preparatory and first-year students of a university in eastern Turkey, which hinders the generalizability of the study. Therefore, it will be important to carry out the study at all grade levels and in different universities and different cultures in order to reach more generalizable and comparable results. In addition; this study is a quantitative study, the study can be carried out with a mixed research method so that the reasons why university students' readiness levels and perceptions of presence are low or high can be examined in more detail. In addition to these; the study can investigate the effects of these variables on students' readiness levels and presence by using different variables. It is obvious that decision-makers in the field of education should be aware of the fact that technology covers every area of our lives and that they should act with awareness of this fact in the planning and execution of education and training activities. It is recommended that middle and high school curricula incorporate practices for introducing online education to ensure students' readiness for university. By implementing this approach, it will provide support for students' social, cognitive, and teaching presence. Alternatively, students may have the opportunity to participate in comparable online education orientation programs offered by public education centers or university continuing education centers. This would allow them to gain firsthand experience with the online education system prior to commencing their university studies. The results of this study also showed that the readiness levels and presence of preparatory and first-year students who participate in education online vary according to age, gender, monthly income of the family, education level they study and even the communication tool they use to connect to the course. Therefore, these situations should be taken into consideration when making programs and it should not be forgotten that the problems arising from these variables should be tried to be reduced as much as possible. In addition, possible problems that students may encounter in online education should be identified in advance and measures should be taken. Educational planners and practitioners should organize programs that will provide university students with the computer and internet self-efficacy, learner control skill, online communication self-efficacy and similar skills required by the age and it is recommended to update them continuously according to the requirements of the age.

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