NHSJ Nursing and Health Sciences Journal

Volume 3, Number 4 (December 2023)
e-ISSN: 2798-5067
p-ISSN: 2798-5059

Determination of University Students' Readiness and Anticipation Levels about the E-Learning Process

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Article Info:
Submitted:
13-11-2023
Revised:
22-11-2023
Accepted:
23-11-2023

DOI:
https://doi.org/10.53713/nhsj.v3i4.310

ABSTRACT

This cross-sectional study was conducted to determine university students' readiness and anticipation levels regarding the e-learning process. The population of the study consisted of nursing students (1st, 2nd, 3rd, and 4th grade) in the Health College of a university. No random sampling was performed. Volunteer students enrolled in the department during the 2018-2019 academic year who agreed to participate in the study constituted the study sample. Data were collected using the "Personal Information" form, which included questions about students' socio-demographic characteristics prepared by the researchers based on literature reviews, the "Scale of Readiness and Anticipations for the e-Learning Process", and the "Scale of Satisfaction with the e-Learning Process". Data were analyzed using the SPSS 25 package program. The significance level was accepted as $p<0.05$. The mean age of the students was 21.5±1.8 and 67.2% of them were female. The total score average of the readiness and expectation scale related to the e-learning process of the School of Health students (101.14±1.52) and the total score average of the Satisfaction Scale related to the e-learning process (102.96±2.26) were found at a high level. As a result, it has been determined that the students participating in the study believe that they have personal characteristics that can receive education in e-learning environments. In addition, it has been found that students are satisfied with the communication features and usefulness of their e-learning environment.

Keywords: e-learning; readiness; satisfaction; distance education

INTRODUCTION

With the influence of globalization, the period called 'Information Age' has begun in human history. The use of computers and the internet has a great impact on the transition to this period (Mutlu et al., 2004; Duran et al., 2006). With these developments, e-learning has gained importance (Olpak & Kılıç Çakmak, 2009; Peltek, 2009; Altınparmak et al., 2011; Çelen et al., 2011; Shahoodh, 2016; Sezgin et al., 2018). E-learning involves the situation where all or most of the teaching is delivered remotely by an instructor to the learner (Nath et al., 2012). When looking at the literature, there are various definitions about e-learning. Many educators have viewed learning as a method used to present information to students (Shahoodh, 2016; Doruk et al., 2017). With the rapid spread of the e-learning method, various positive and negative aspects of this method have emerged. The student can decide on e-learning time, learn at his own learning pace, whenever he wants, as much as he wants, access training from anywhere with internet access, access training and information over and over again, have constant access to trainers and subject experts in environments such as e-mail and forums, Saving costs can be considered among the positive aspects of this method (İTÜGOV., 2012). However, there are also negative aspects such as the lack of internet, the student not wanting to study alone in a programmed way, isolating himself from people, and losing motivation as a result of these negative situations (Olpak & Kılıç Çakmak, 2009; Zelyüt, 2017). Piskurich (2003) states that the underlying reason why individuals are negatively labeled from the e-learning process is mostly due to their not being ready for the e-learning process. For this reason, it is of great importance to determine the readiness levels of individuals for online learning before starting the studies (Yurdugül & Demir, 2017).

It is seen that information technologies are at the forefront in studies on the readiness process (Stephen et al., 2006; Hanafizadeh & Khodabakhshi, 2009; Gülbahar, 2012). In some studies, in addition to information technologies, it is discussed in four dimensions: personal characteristics, information and communication technologies and access to them,

Volume 3, Number 4 (December 2023)
e-ISSN: 2798-5067
p-ISSN: 2798-5059

motivation of people who learn and teach, and difficulties experienced (Dada, 2006; Stephen et al., 2006; Hanafizadeh & Khodabakhshi, 2009; Watkins et al. al., 2004). Although studies on the readiness process are limited, many studies mention the necessity of determining students' readiness levels for e-learning in order to effectively implement e-learning (Hung et al., 2010; Yurdugül & Alsancak-Sırakaya, 2013; Yurdugül & Demir, 2017). Since the studies on the concept of readiness for e-learning are limited, its components are not fully known. However, in the studies conducted by Hung and his friends, the readiness process; They stated that it consists of 6 components: computer self-efficacy, internet self-efficacy, online communication self-efficacy, self-learning, learner control and motivation for e-learning (Hung et al., 2010). In her study, Gülbahar (2012a) considers the factors affecting readiness in e-learning as personal characteristics, access to technology, technical skills, motivation and attitude, and success.

Satisfaction is the satisfaction of expectations, emotions, and compatibility resulting from a life-related event or an action (Sener & Humbert, 2003; Korkmaz et al., 2015). Student satisfaction: It is the blending of design, operation, usability, and application dimensions during online learning (Sener & Humbert, 2003; Gülbahar, 2012b). Learners' satisfaction levels can be affected by factors such as learners' ability to use online technology devices, their personal competencies, the technical competencies of instructors, and the ability to establish adequate interaction between learner-learner and learner-instructor (Machado, 2007; Palmer & Holt, 2009; Ilgaz & Gülbahar, 2015).

It is thought that this study will contribute to the literature by determining university students' readiness and expectation levels for e-learning and obtaining a scientific result. In addition, the results obtained will shed light on researchers and practitioners on how students can be more ready for e-learning and how their expectation levels can be made appropriate. For this reason, this research was conducted to determine students' readiness and expectation levels regarding the e-learning process.

METHOD

Study Design and Sampling

This cross-sectional study was conducted to determine the readiness and expectation levels of the students of the Nursing Department of a university's School of Health regarding the e-learning process.

The research was conducted between November 2018 and January 2019 with students from the Nursing Department of the School of Health of a university. The population of the research consisted of students from the Nursing Department of the School of Health of a university studying in the fall semester of 2018-2019 (N: 371). The number of samples to be included in the study was calculated as 189 people, assuming a reliability level of 95% and a margin of error of 5%. No sample selection method was used in the study. Kırklareli University Nursing Department students who agreed to participate in the research, spoke Turkish and had no communication problems were included in the study.

Data Collection

Data were collected using the Personal Information Form, which includes questions about socio-demographic characteristics prepared by the researchers, the Readiness and Expectation Scale for the E-Learning Process, and the Satisfaction Scale for the E-Learning Process. Data collection lasted approximately 15-20 minutes for each student.

1. Personal Information Form
   In the questionnaire created by the researchers by scanning the literature, questions such as age, gender, grade level, place of residence, monthly income of the family, cigarette/alcohol use, parents' survival status, education level, job status, number of siblings, presence of a personal computer, frequency of internet use were included. It consists of questions aimed at obtaining information about the e-learning process.
2. Readiness and Expectation Scale for the E-Learning Process
   The scale developed by Gülbahar (2012); It consists of a total of 5 dimensions and 26 questions: Personal Characteristics, Access to Technology, Technical Skills, Motivation and Attitude, and Factors Affecting Success. There are 4, 4, 8, 4 and 6 questions in each dimension of the scale, respectively. The scale is a 5-point Likert type and the Cronbach alpha reliability coefficient was found to be 0.93. (Gülbeyaz,2012a). In this study, the Cronbach alpha reliability coefficient of the total Readiness and Expectation Scale for the e-Learning Process was calculated as 0.94, and the scale was found to be reliable with all its factors ($\alpha > 0.70$).
3. Satisfaction Scale Regarding the E-Learning Process
   The scale was developed by Gülbahar in 2012 and consists of 4 dimensions and 29 questions: Delivery and Usability, Teaching Process, Teaching Content, Interaction and Evaluation. There are 7, 8, 4 and 10 questions in each dimension of the scale, respectively. The scale is a 5-point Likert type and the total Cronbach alpha reliability coefficient of the

Volume 3, Number 4 (December 2023)
e-ISSN: 2798-5067
p-ISSN: 2798-5059

scale is 0.97 (Gülbeyaz, 2012a). In this study, the Cronbach alpha reliability coefficient of the "Satisfaction Scale with the e-Learning Process" was calculated as 0.98, and the scale was found to be reliable with all its factors (α > 0.70).

Research data was collected by face-to-face interview method. Data collection was set at approximately 15-20 minutes for each participant.

Data Analysis

The data were analyzed with the SPSS 25 package program. In the analysis of the data, frequency, percentage and mean-standard deviation, and Cronbach's alpha coefficient were examined for the reliability coefficient of the scale. The results were evaluated with a 95% confidence interval and a significance level of $p<0.05$.

Ethical Considerations

Before starting the study, written permission was obtained from the School of Health of a university and the Ethics Committee of the Institute of Health Sciences. Written and verbal consents were obtained from the individuals participating in the study and were included in the study.

Research Questions

What are the readiness levels of university students regarding the e-learning process? What are the expectation levels of university students regarding the e-learning process?

RESULT

In Table 1, the distribution of sociodemographic characteristics of the students participating in the study was given. 67.2% of the students participating in the study were female and their average age was 21.5±1.8. It was found that 37.6% of the students were in the 4th grade and 54.4% stayed at home. The mothers and fathers of 45.6% of the students were primary school graduates. Most of the students had fathers working while their mothers were not working. 72.4% of the students had a personal computer. 82.4% of them used the internet throughout the day (Table 1).

Table 1. Distribution of Sociodemographic Characteristics of Students (n=125)

Variables	Category	Frequency	Percentage
Age	Mean: 21.5±1.8	Min:17	Max:31
Gender	Woman	84	67.2
	Male	41	37.8
Class	1st grade	22	17.6
	Grade 2	12	9.6
	Grade 3	44	35.2
	Grade 4	47	37.6
Where You Live	Home	68	54.4
	Dormitory	52	41.6
	Family	2	4
Do you smoke?	Yes	42	33.6
	No	83	66.4
Do you drink alcohol?	Yes	46	36.8
	No	79	63.2
Monthly Income Status	Income Less Than Expenses	15	12.0
	Income Equals Expenditure	88	70.4
Are Mom and Dad Life?	Both Right	118	94.4
	One Is Right	7	5.6
Mother's Education Status	Primary school	57	45.6
	Secondary school	37	29.6
	High school	26	20.8
	University	5	4

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e-ISSN: 2798-5067
p-ISSN: 2798-5059

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Variables	Category	Frequency	Percentage
Father's Education Status	Primary school	43	34.4
	Secondary school	28	22.4
	High school	34	27.2
	University	20	16
Mother's Employment Status	Running	39	31.2
	Nonoperating	86	68.8
Father's Employment Status	Running	103	82.4
	Nonoperating	22	17.6
Number of Siblings	No	9	7.2
	One	52	41.6
	Two	34	27.2
	Three and Above	30	24
I Have a Personal Computer	There is	90	72.4
	No	35	28
Internet Usage Frequency	Once a week	7	5.6
	Once a day	15	12
	All Day Long	103	82.4

Table 2 gives the mean scores of the students' readiness and expectation scale and sub-dimensions regarding the E-learning process. The mean scores of the sub-dimensions of the scale such as personal characteristics, access to technology, technical skills, motivation and attitude, and factors affecting success were respectively; 13.96±0.35, 15.27±0.34, 32.41±0.56, 15.16±0.31, 24.33±0.34. The mean total score was 101.14±1.52 (Table 2).

Table 2. Mean Scores of Students' Readiness and Expectation Scale and Sub-Dimensions of the E-learning Process (n=125)

Scale subdimensions	$\bar{x}$	SD	Min	Max
Personal Characteristics	13.96	0.35	4	20
Access to Technology	15.27	0.34	5	20
Technical Skills	32.41	0.56	13	40
Motivation and Attitude	15.16	0.31	4	20
Factors Affecting Success	24.33	0.34	17	30
Scale total	101.14	1.52	51	130

*Min= Minimum value Max= Maximum value $\bar{x}$= mean SD=Standard deviation

Table 3 shows the mean scores of the students regarding the e-learning Process Satisfaction Scale and its sub-dimensions. The mean scores of the Transmission and Usefulness, Teaching Time, Teaching Content, Interaction and evaluation sub-dimensions of the scale were respectively; 25.24±0.60, 28.45±0.63, 14.57±0.34, 34.68±0.87. The mean total score was calculated as 102.96±2.26 (Table 3).

Table 3. Mean scores of the Students' Satisfaction Scale with the E-Learning Process and its sub-dimensions (n=125)

Scale subdimensions	$\bar{x}$	SD	Min	Max
Transmission and Convenience	25.24	0.60	7	35
Teaching Process	28.45	0.63	8	40
Instructional Content	14.57	0.34	4	20
Interaction and Evaluation	34.68	0.87	10	50
Scale total	102.96	2.26	29	145

*Min= Minimum value Max= Maximum value $\bar{x}$= mean SD=Standard deviation

Volume 3, Number 4 (December 2023)
e-ISSN: 2798-5067
p-ISSN: 2798-5059

DISCUSSION

In this part of the study, the findings of the scores of the readiness and expectation scale and the scores of the satisfaction scale regarding the e-learning process of the students were discussed.

In this study, the mean scores of the personal characteristics, access to technology, technical skills, motivation and attitude, and factors affecting success sub-dimensions of the readiness and expectation scale of the students regarding the e-learning process were respectively; 13.96±0.35, 15.27±0.34, 32.41±0.56, 15.16±0.31, 24.33±0.34. The mean total score was 101.14±1.52. This result shows that the score of the students from the scale is at a high level. In similar studies in the literature, the total score of the readiness and expectation scale for the e-learning process was found to be high (Korkmaz et al., 2015; Yılmaz et al., 2019; Türkmen et al., 2020; Uyar and Karakuyu, 2020; Nayci, 2021). These results are similar to the literature. It is thought that the reason for this is that students are young and can adapt quickly and easily to the technological development process.

In this study, the mean scores of the Transmission and Usefulness, Teaching Time, Teaching Content, Interaction and evaluation sub-dimensions of the Satisfaction Scale related to the e-learning process of the students were respectively; 25.24±0.60, 28.45±0.63, 14.57±0.34, 34.68±0.87. The total mean score was calculated as 102.96±2.26. The study shows that the score of the students from the scale is at a high level. In some studies conducted in the literature, the total score of the Satisfaction Scale related to the e-learning process was found to be at a moderate level (Deveci Topal, 2016; Bagci, 2018; Caliskan, 2019; Atasoy et al., 2020; Bawaneh, 2021) In the study conducted by Genç and Gümrükçüoğlu, the total scale score was found to be low (Genç and Gümrükçüoğlu, 2020). Different results are found in the literature. It is thought that the reason for the different results of this may be due to the fact that students are in different environments and cultures and have different sociodemographic characteristics.

CONCLUSION

When the analyzes conducted in this research were evaluated, it was determined that the students participating in the research had the readiness and expectation levels to receive education in e-learning environments. It was also determined that students were satisfied with the e-learning environment they used. In line with these results, it is necessary to support students in line with their needs to further increase their readiness and satisfaction levels for the e-learning process, and to organize training for students and educators in order to adapt to changing educational technologies. It is also recommended that the number of studies to be conducted on this subject be increased.

LIMITATIONS

One of the limitations of the study is that the research was conducted in only one department at a university and the sample size was low due to the high number of students who did not meet the inclusion criteria.

FUNDING DISCLOSURE

No financial support was provided for this research.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Introduction: İY, İMA; Method: IY, IMA; Results: İY, İMA; Discussion: IY, IMPLICATION; Result: IA, IMA

ACKNOWLEDGMENTS

The authors thank the participant for his/her support of the study.

Volume 3, Number 4 (December 2023)
e-ISSN: 2798-5067
p-ISSN: 2798-5059

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