



THE EFFECT OF E-LEARNING EXPERIENCE ON READINESS, ATTITUDE, AND SELF-CONTROL/ SELF-MANAGEMENT

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ABSTRACT

Aim/Purpose	This study aimed to reveal the effect of the previous Internet-based education (IBE) experiences of the students' readiness, attitude, and self-control / self-management variables towards the e-learning process, and also to determine their opinions.
Background	The institutions have made efforts to ensure the continuity of education through their learning management systems and the necessity of addressing the e-learning process from the perspective of students once again showed itself as an undeniable fact. Accordingly, the necessity to consider holistically the variables of readiness, attitude, and self-control/self-management, which affect students' adaptation to e-learning process, has once again emerged based on the relevant literature.
Methodology	This research based on the simultaneous mixed method considering the previous IBE experiences of 75 Computer Education and Instructional Technology (CEIT) students taking part in the study in Turkey. The quantitative results of the study were analyzed based on the single-group pretest-posttest weak experimental design. Qualitative results were obtained through the structured interview form and set an example for the case study.

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Contribution	<p>The results showed that regardless of students' previous Internet-based education (IBE) experience, it is seen that increasing and continuous experience has a significant effect on the readiness, attitude and self-control / self-management variables towards the e-learning process. The main contribution of experimental results showed that IBE experience is effective on individuals' perceptions of internet self-efficacy, and has an impact on the self-learning skills of individuals. In addition to this, the e-learning experience has an impact on individuals' self-evaluation. It is also seen that the certificate presented to learners in the e-learning environment has a positive effect on students' attitudes towards e-learning processes. Finally, the experiences of e-learning processes, the methods used to transfer the content in the learning environment, the motivation and feedback provided to the learner also support the significant difference obtained in terms of readiness, attitude and self-control / self-management.</p>
Findings	<p>After the findings were analyzed holistically in depth, it has been observed that; if the contents offered to students in e-learning environments support their professional development, in this case, their attitudes, readiness (excluding the sub-dimension of learner control), and self-control/self-management skills for these environments differ significantly in the posttest. It is also among the results that students having previous IBE experience have not higher awareness levels on online communication self-efficacy, technology use self-efficacy, readiness for e-learning, e-learning predisposition, self-reinforcement, self-control management, although significantly found. The findings regarding the effectiveness of the experimental process are as follows: Although it is possible for the students having previous IBE experience to use these experiences within the course for their personal development, it has been seen that the observed differences regarding students' readiness, attitude, and self-control/self-management towards e-learning processes arise from the experimental operation.</p>
Recommendations for Practitioners	<p>It is recommended for the policy-makers and practitioners that while e-learning platforms were designing, using different methods for delivering the content is as important as making the interaction meaningful and sustainable. In addition to this, to develop a positive attitude it is recommended that individuals' participation of an e-learning platform should be supported with a certificate.</p>
Recommendations for Researchers	<p>Researchers should test the obtained results by a well-structured e-learning platform with their recorded activities on the platform (e.g. in which section was used mostly by a learner etc.). Hence, the impact of IBE experiences might be discussed in an up level framework.</p>
Impact on Society	<p>Actually, this study is based on a mix design and the results were also meaningful especially considering the implacable global pandemic. It is clearly understood by this process that e-learning is very important. In line with this, to support the e-learning process (e.g. with the method while delivering the content, well-structured feedback, motivation strategies etc.) and make it sustainable, the increasing of individual's readiness, attitude, and self-control through the IBE would be indispensable.</p>
Future Research	<p>Future studies might focus on the longitudinal methods. It is worth to find out how the students experiences affect the sustainability of the course content, and what should the program developer make to improve their course content in line with the findings of longitudinal studies.</p>

Keywords e-learning experience, readiness, attitude, self-control / self-management, mixed-method

INTRODUCTION

Although e-learning, distance-learning, or online learning are sometimes used in the same sense, there are studies on the differences of these concepts in terms of scope and meaning, and it is stated that some contradictions continue in terms of semantic integrity (J. L. Moore et al., 2011). E-learning, which is defined as an innovative method of teaching and learning to provide Web-based learning, internet-based education, and education using electronic media by using the internet, extranet, intranet, hypertext through computer network technologies (M. G. Moore & Kearsley, 2012), makes advances and continues its journey by making continuous locus changes in electronic environments by providing more information to reach more people as time passes with different application models (synchronous and asynchronous) of technological innovations (Gülbahar, 2017).

It is seen that e-learning applications in the world have widespread with the rapid developments in technology and social transformations (Duffin, 2020; Pappas, 2019). In the United States, the number of students who attended at least one online course among university students between 2016 and 2018 increased by 30%. Palvia et al. (2018) state that 1.6 million people participated in e-learning in India in 2017 and expect the participation to increase to 9.6 million in 2021. Studies in different countries share these expectations in the same way. In a study conducted in Germany, it was seen that 74.7% of the students had the desire to take online courses (StudyinginGermany.org, 2020). While the number of distance learning students at the bachelor's level in Turkey in 2015 was 24811 (Cabı & Ersoy, 2017), the number rose to 44 475 in 2020 (YÖK, 2020). Accordingly, it is thought that online courses and remote teaching applications will become increasingly common. However, despite this prevalence, there are some problems in achieving the effectiveness of remote teaching. In their research, Bilgiç and Tüzün (2015) have expressed the hardships experienced in web-based remote teaching programs as student-related, lecturer-related, administrative, technical, and others. In the study, the problems encountered by students are seen as not meeting the students' expectations, and thus they leave the system such reasons: the students' feeling of loneliness in a center, late responses to student e-mails, students with low computer literacy, low student readiness, students' technical inadequacy, low participation to live classes and lack of communication between academic staff and students. Besides, it can be thought that the inability of the families to provide sufficient support to the students due to their increased workload at home increase the problems that students experience in remote teaching (Can & Köroğlu, 2020). Although there are many consequences of these problems, one of the most significant results, according to Yukselturk and Inan (2006), is that students quit online courses.

LITERATURE REVIEW

Readiness

Many factors are affecting the e-learning process that results in leaving online learning environments. (Wei & Chou, 2020) state that the concept of e-learning readiness affects participants' learning performance in online classes. Students' e-learning readiness is defined as "their ability to use e-learning resources and multimedia technologies to increase the quality of learning" (Kaur & Zoraini Wati, 2004). Another definition made by Borotis and Poulymenakou (2004) is "to be mentally and physically ready for certain online learning experiences and actions" (As cited in Engin, 2017). When e-learning is considered as a system, the inputs can be variables such as readiness, instructional design, and content design, and outputs can be variables such as success, satisfaction, and participation. Therefore, if any problems occur in the e-learning process outputs, the inputs should be checked. To reveal the problems encountered by students in e-learning, several variables (e.g., grade level) have

been examined as inputs in many studies (Yurdağül & Demir, 2017). Since remote teaching is a method carried out using knowledge and communication technologies, it requires different competencies than face-to-face education, and it is necessary to determine whether the students have these competencies. (Kalelioğlu & Baturay, 2017). In other words, it can be said that only individuals having sufficient e-learning competencies are ready for e-learning and successfully benefit from remote teaching.

In studies on learners' readiness for e-learning, the readiness concept components were generally examined in sub-dimensions like individual characteristics such as technology use, access, and motivation; environmental variables such as learning environments; and the factors affecting success (Gülbahar, 2012). Online communication skills including, computer and internet use competencies (Hung et al., 2010; Khan, 2005; Yu, 2018; Yükseltürk & İnan, 2006), self-directed learning, learner control, motivation (Hung et al., 2010; Khan, 2005; Smith, 2005; Yükseltürk & İnan, 2006), time management (Roper, 2007; Yükseltürk & İnan, 2006), attitude (Martin et al., 2020; Sun & Wilson, 2008) have been observed within the scope of individual characteristics. In a literature review conducted between 2004 and 2013, it was revealed that technology and learner variables were the most studied e-learning components in terms of readiness (Mosa et al., 2016). In addition to these variables, also some studies examine the effects of individuals' previous e-learning experiences on readiness (Fogerson, 2005). Joosten and Cusatis (2020) state that more research is needed on the impact of e-learning experiences on readiness.

Attitude

Attitudes play a significant role in analyzing students regarding how learners use new learning environments. Because attitudes emerge as the determinants of behaviors (Çelik & Uzunboylu, 2020). Attitude is the posture of an individual taken when establishing a relationship with an object, person, or situation or before starting a behavior, in other words, the state of getting ready or being ready for action (Dündar et al., 2017). This preparedness or readiness is related to individuals' socio-cultural backgrounds, previous knowledge, and learning experiences (Ojo & Olakulehin, 2006).

The quality of the e-learning perceptions is another crucial point regarding learners' e-learning experiences (Al-Samarraie et al., 2018). In studies on e-learning experience, some inconsistencies are observed in the results of the relationship between the learners' previous experiences and variables such as motivation and attitude (Yoo & Huang, 2013). Besides, it is a complicated situation to identify tools to increase learners' e-learning competencies and change their minds towards online learning. In his study, Sezer (2016) states that students generally find useful the feature of accessing learning resources independently of time in e-learning but have negative thoughts about the limitations of communication in e-learning. In their study conducted with university students, Zhu et al. (2020) stated that students generally have positive attitudes towards e-learning and that positive attitudes motivate students to participate in e-learning more. This situation suggests that learners' attitudes towards e-learning environments stem from the tools, approaches, and different variables used. It can be said that attitudes have a powerful influence on individuals' willingness to benefit from e-learning.

Self-control/Self-management

Self-management is included in some theories to explain remote teaching. Keegan (1986) divided remote teaching theories into three categories: independence and self-management, the industrialization of teaching, interaction and communication. In his Independent Study Theory, Wedemeyer (1981) states that the essence of remote teaching is the learner's independence. Considering the applications in the world, especially at the higher education level, multimedia-based on more technology and applications should be developed by pedagogical approaches. In this new system, the learner should have more responsibility in the learning process. Earlier, Micheal Graham Moore's Independent Study Theory (1973), introduced in the 1970s, also tried to explain remote teaching with a similar approach. According to Moore's theory, institutions, particularly in higher education, are structured

under two measurable variables: dialogue, which is two-way communication, and learner's self-control skill. Dialogue emphasizes the communication between the learner and the institution. This communication has comprehensive content. Besides personal communication, it is significant for the institutions to shape their programs according to learners' requirements; and this configuration requires a structuring according to needs analysis. According to Micheal Graham Moore, learners in the traditional education style are dependent on the instructor, and the instructor is much more active than the learner in the learning process. In remote teaching, since there is a physical distance between the lecturer and the learner, the learner takes more responsibility in the learning process. However, some learners' self-control skills are high while others' are low. Individuals with low self-control skills need more support in determining learning goals, conducting the learning process, and accessing information resources (Schlosser & Simonson, 2009).

It is seen that self-control/self-management has been examined with various sub-dimensions in studies. For example, Garrison (1997) considered sub-dimensions as self-regulation, self-monitoring, and motivation. Within self-control, learners determine a goal in their learning process and manage their learning processes by reaching learning resources to achieve that goal. Besides, learners develop their learning strategies in this process. This situation requires learners' self-control/self-management skills for their e-learning practices.

THE RELATIONSHIP BETWEEN THE VARIABLES IN THE STUDY

It is observed that the concepts of readiness, attitude, and self-control/self-management discussed in the current study meet on the common ground of success when considered holistically with the experiences of students in e-learning environments. It can be said that readiness for e-learning is a recognized framework in terms of success and student attendance in e-learning. Besides, according to Watkins et al. (2004), e-learning readiness generally indicates which criteria should exist for successful online learning. Success can only be defined by these criteria. For example, in some studies, student success grades (Durmuş, 2003), learning outcomes (Kauffman, 2015), student satisfaction and perception (Süral, 2012), and learners' class attendance rates (Wladis et al., 2016) have been evaluated within the scope of success. However, it should be kept in mind that changing behavior is more challenging than changing beliefs. It is emphasized that learner engagement in online learning environments includes cognitive, emotional, and behavioral attachment and that these structures are interactive with each other (Fredricks, 2015). Therefore, considering that attitudes are the determinants of behaviors, and taking into account their cognitive, affective, and behavioral dimensions (Kothandapani, 1971), it is thought that handling the dynamics (different tools, methods, approaches, etc.) of learners' e-learning environments and their readiness together will be significant in predicting the future success of e-learning environments. Also, while the cognitive dimension of learner engagement is addressed within the use and self-regulation processes of cognitive and metacognitive strategies (B. A. Greene, 2015), emotional attachment is seen as the level of learner's emotional reactions to the learning task, such as care, boredom, happiness, anxiety, positive attitude, satisfaction, and the perceptions of the subject's value (Chapman, 2003). Finally, the behavioral attachment includes clear and visible behaviors such as participating in academic and social activities, attending classes, obeying rules, asking questions in the classroom, taking part in discussions, and doing homework (Fredricks et al., 2004). From this point of view, it can be said the learners' having e-learning experience creates an opportunity to gain e-learning competencies, move forward in class-attendance and academic success, and develop a positive attitude. For this reason, the students taking learning responsibilities, especially in e-learning environments, might reach higher academic success levels by improving their positive attitude and self-control/self-management skills towards e-learning environments. In studies conducted in this context, it is seen that the levels of self-control of learners differ in parallel with their academic achievements (Barnard-Brak et al., 2010), and learning outcomes are affected by self-control/self-regulation skills and class participation (Zhu et al., 2016).

PURPOSE AND IMPORTANCE OF THE STUDY

During the global pandemic period, education has been severely disrupted, as in many sectors. In many countries, schools have been closed, and face-to-face teaching has been suspended. Online environments have begun to be used to ensure the continuity of education. Although the institutions have made efforts to ensure the continuity of education through their learning management systems, the necessity of addressing the e-learning process from the perspective of students once again showed itself as an undeniable fact. It is thought that some deficiencies in the applications related to the e-learning process, such as the lack of technological equipment (The Organization for Economic Co-operation and Development [OECD], 2020) and the lack of experience and support of faculty members in using and integrating technology effectively (Bao, 2020), make the adaptation of students to the process difficult. Accordingly, the necessity to consider holistically the variables of readiness, attitude, and self-control/self-management, which affect students' adaptation, has once again emerged based on the relevant literature. This study investigates the effect of pre-service teachers' Internet-Based Education (IBE) experiences on readiness for e-learning, attitude for e-learning, and self-control/self-management. By supporting the results obtained within this purpose with qualitative research methods; besides investigating the effect of the certificate presented to the participants in IBE environments on their perspectives to e-learning processes, also researching the participants' opinions about the e-learning program they enrolled in, getting their views about the experiences in the e-learning process and taking their ideas on the contributions of the e-learning process are among the aims of the study.

In this context, this study seeks answers to the following questions:

- 1) What is the effect of students' previous experience with IBE on their readiness, attitude, and self-control/self-management levels?
According to the students' previous IBE experience,
- 2) What is the impact of the e-learning process on readiness, attitude, and levels of self-control/self-management?
 - a) What are the students' opinions about the program they enrolled in the e-learning process during the experimental process?
 - b) What are the positive and negative opinions of the students about the e-learning process during the experimental process?
 - c) What is the significance of the certificate presented to learners in IBE environments on students' attitudes towards e-learning processes?

Accordingly, this study is;

- a. Up-to-date, specifically to raise awareness about IBE environments during the global pandemic process we live in,
- b. Original, in terms of the variables addressed, and the methodology based on the e-learning process,
- c. Necessary for revealing the dynamic variables of the e-learning process during the pandemic period,
- d. Functional, in terms of its application recommendations towards education and training environments.

METHOD

RESEARCH MODEL

This study was planned and carried out as an example of mixed-method research. Mixed method research, defined as a research designs that include at least one quantitative and one qualitative method by J. C. Greene et al. (1989), is considered the concepts of a study or subsequent studies with the

combination of qualitative method and quantitative method approaches (Creswell, 2003). In this direction, this study was planned and carried out with a concurrent, mixed-method, which was conducted by combining quantitative and qualitative research questions and collecting data simultaneously. The first part is an example of a scanning model, one of the quantitative research methods. In the stage where the quantitative research method was carried out, single group pretest-posttest weak experimental models were utilized. Experimental designs are research designs that aim to discover cause-and-effect relationships between variables (Büyüköztürk, 2016). The stage in which the qualitative research method was carried out in the second part is an example of a case study. Case studies are qualitative research approaches where the researchers examine in depth one or more situations limited in time by identifying situations and situational themes with data collection tools (observations, interviews, audio-visuals, documents, reports) containing multiple sources (Tavşancıl & Aslan, 2007). By using these two approaches together, it is thought that the research problem presented in the study will be dealt with more integrally and holistically and will be better understood.

The concurrent mixed-method allows the researcher to triangulate the results separately obtained from the research's quantitative and qualitative components and to verify, support, or cross-validate the findings within a single study (Creswell, 2003). An easily accessible sampling method was used in the qualitative part of the study. Easily accessible or convenient sampling is based on fully available, easy-to-reach items (Baltacı, 2018). The "structured interview form" developed by the researchers was used in the qualitative part of the study as a data collection tool. An interview is one of the most widespread data collection methods in qualitative terms because it is used influentially in revealing individuals' data, opinions, experiences, and emotions, besides using the speech, the most common form of communication (Yıldırım & Şimşek, 2005, p. 127). In the preparation stage, special attention was paid to include questions to determine satisfaction and experiences on the interview form used as a data collection tool.

WORKING GROUP

The study group comprised 75 Sakarya University Education Faculty, Computer Education and Instructional Technologies Department senior students in the Internet-Based Education (IBE) course in the spring term. The IBE course is compulsory in the relevant department. Students have taken part in the e-learning environments introduced by the Google platform, supporting their professional development within the experimental process. The study group's demographic information is given in Table 1 and Table 2 below.

Table 1: Distribution of Participants by Gender

GENDER	FREQUENCY (F)	PERCENTAGE %	GENDER
Female	35	46,7	Female
Male	40	53,3	Male
Total	75	100,0	Total

As seen in Table 1, the study group consists of 75 people in total, 46.7% (f=35) are female, 53.3% (f=40) are male.

Table 2: Distribution of Participants Having Previous Internet-Based Education Experience

HAVE YOU STUDIED WITH AN IBE BEFORE?	FREQUENCY (F)	PERCENTAGE %	HAVE YOU STUDIED WITH AN IBE BEFORE?
Yes	42	56,0	Yes
No	33	44,0	No
Total	75	100,0	Total

Table 2 shows the participants' previous IBE experience findings. While 42% of the participants ($f=56.0$) had previous IBE experience, 33% ($f=44.0$) did not have IBE before.

Table 3: Distribution of Participants Having IBE Experience by Their Purpose of Experiencing

THEME	SUB-THEME	CODE	PARTICIPANT
Goal	Lesson	Remote teaching lesson	K1, K6, K8, K10, K12, K13, K18, K21, K23, K24, K25, K26, K27, K30, K31, K33, K37, K39, K45, K60, K62, K68, K69, K70, K71, K72, K75
	Self-improvement	Foreign language education	K2, K56
		Studying another department at university	K40, K50
		For certification	K16, K29, K49, K51, K58, K65, K67

As seen in Table 3, two sub-themes as "Lesson" and "Personal Development" were determined in the interviews conducted to determine the participants' aims in taking part in IBE. It is seen that most of the participants (28 participants) had such an experience because they took lessons with remote teaching. Also, some participants have had such experience for their improvement in some areas such as foreign language education, studying in another department (Public Administration, Computer Programming, Business), and getting certification (software certificate, Google Instructor certificate, effective communication strategies, and body language certification, Udemy, Teachable, Vidobu paid certificate programs).

DATA COLLECTION TOOLS

Readiness for e-learning

Readiness for E-Learning scale developed by Yurdugül and Demir (2017) consists of 6-factors and 33-items in total as follows: Computer self-efficacy-CSE (5-items), internet self-efficacy-ISE (4-items), online communication self-efficacy-OCS (5-items), self-learning (SL) (8-items), learner control-LC (4-items) and motivation for e-learning MEL (7-items). However, it has been determined that two supreme concepts, Technology use self-efficacy (TSE) and Autonomous learning (AL), include these six factors. While the TSE concept covers CSE, ISE, and OCS sub-dimensions, the AL concept covers SL, LC, and MEL sub-dimensions. The scale designed in a 7-point Likert type aimed to measure university students' readiness for e-learning. The items of the scale ranged from "not suitable for me (1)" to "completely suitable for me (7)." The scale can produce a maximum score of 231 points and a minimum of 33 points. Higher scores on the scale mean more readiness for e-learning. The reliability coefficient calculated with Cronbach's Alpha for the whole scale was 0.93. The Cronbach Alpha reliability coefficient calculated for its sub-dimensions is 0.84, 0.85, 0.84, 0.88, 0.91 and 0.95, respectively. There is no reverse item on the scale.

Attitude towards e-learning

The scale of Attitude for E-Learning, developed by Haznedar and Baran (2012), comprises two sub-dimensions, including 20 items: e-learning predisposition-PEL (10-items) and avoiding e-learning-AEL (10 items). While the item "e-learning makes learning easy" is an example of the PEL sub-dimension, the "I think I will encounter too many problems when I take lessons with e-learning" item is an example of the AEL. It is also possible that the scale is used with only one factor. Accordingly, while the reliability coefficient calculated with Cronbach Alpha for the whole scale was 0.93, it was

calculated 0.93 for the PEL sub-dimension and 0.84 for the AEL. The scale has a 5-Likert type grading: (1) Strongly Disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Strongly Agree. While the lowest score on the scale is 50, the highest score is 250. The AEL sub-dimension items of the scale have been reverse coded.

Self-control-self-management

The self-control/Self-management scale, developed by Mezo in 2009 and adapted into Turkish language by Ercoşkun (2016), consists of three dimensions (Self-Reinforcing (SR), Self-Evaluating (SE), and Self-Monitoring (SM)) and 16 items in total. The reliability coefficients calculated by the test-retest method have been reported 0.75 for the whole scale, 0.70 for the SR, 0.62 for the SE, and 0.66 for the SM. The scale is a 6 point Likert scored between "0-It does not describe me at all" and "5-It completely describes me." The scores obtained from the scale range between 0 and 80. The 7th, 8th, 9th, 10th, and 11th items of the scale have been reverse coded.

The structured interview form-i (pre-test)

In the structured interview Form-I, the questions about the participants' genders, their previous IBE experiences, and their purposes for participating in IBE are included.

The structured interview form-ii (post-test)

The structured interview Form-II contains questions asked to the participants after the experimental procedure, for example, "How did getting or not getting a certificate affect your attitude towards e-learning processes," "Explain your opinions about the program on Google's IBE platform you enrolled in (the program content, the methods used, transferring the content, feedback, motivation factors, etc.), "Share your positive and negative opinions about this experience you have gained in IBE."

THE COLLECTION OF DATA

In the data collection process, the Form-I created for the study purposes was distributed to the students enrolled in the course at the beginning of the spring semester. Form-I and Form II consists of data collection tools to be obtained based on quantitative methods and structured interview to be obtained based on qualitative methods. The data obtained based on qualitative methods in the study have differed at the beginning and end of the experimental process. Online forms have been utilized to collect data. The answer to the measurement tool, which contains data to be obtained based on quantitative methods, is approximately 10 minutes, furthermore, it takes almost 12 minutes to answer the structured interview Form-I and the structured interview Form-II.

DATA ANALYSIS

In the study, the SPSS 20 program was used in the analysis of quantitative data. According to the descriptive statistics for the obtained data, the maximum-minimum values, mean and standard deviations, and kurtosis-skewness values were presented. One-sample t-test based on a single group pre-test-posttest weak experimental model was one of the statistical methods used in the quantitative part of the study. In the analysis of qualitative data, content analysis was performed. The data obtained were subjected to content analysis. Content analysis is a research method that includes a series of processes performed to make inferences from the text. The desired results may be related to the message itself, as well as to the sender or the addressee of the message. Content analysis can be used for many purposes (Weber, 1990). The agreement percentage of the two researchers for the theme, sub-theme, and codes revealed as a result of the content analysis was examined.

VALIDITY AND RELIABILITY

Internal validity and external validity of the experimental study

If the participants threatening internal validity are selected, in this case, it is substantial that the group has similar experiences. The life-experiences of the individuals in the group related to the subject covered in the study were examined, and it was determined that they had received the same scores from the measurement tools, and the effectiveness of the experimental procedure was tested on participants determined to have similar experiences. Maturation of the participants is another factor threatening internal validity, and this factor is explained as the differentiation occurring in the lives of the subjects outside the boundaries of the experiment (Büyüköztürk, 2016). In the study, it is possible to minimize this threat by having the participants in an internet-based learning environment where the same dynamics are present. The internal validity threat caused by the data collection tool was also reduced by collecting the data by the same person and with the same measurement tool.

The validity of qualitative study

To ensure internal validity, the interview questions were examined by two field experts, one assessment and evaluation specialist, and one language expert; the ultimate form was created after these examinations. Then, a pilot study was conducted on four pre-service teachers to measure the operability of these questions, and the interview questions were prepared sharper and more understandable based on the feedback given by the teacher candidates. After the implementation, the interview answers were examined separately by two researchers. The "agreements" and "disagreements" were discussed within the themes and sub-themes created considering the data, and required arrangements have been made on the common theme and sub-themes of the answers towards the questions of "the attitude towards e-learning processes," and "the opinion towards the program in terms of the experience gained within the study." The reliability formula proposed by Miles and Huberman (1994) was used to calculate the study reliability. $\text{Reliability} = \frac{\text{Agreement}}{\text{Agreement} + \text{Disagreement}}$. The calculation gave the research reliability 97%. Reliability calculations above 70% are considered reliable for research (Miles & Huberman, 1994). Eventually, the result obtained here is considered reliable for the research.

FINDINGS

DESCRIPTIVE FINDINGS

Table 4: Descriptive statistics of the scales

	<i>N</i>	Min	Max	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
CSE (pre)	75	23,00	35,00	31,64	3,339	-,819	-,341
CSE (post)	75	26,00	35,00	32,96	2,310	-1,052	,538
ISE (pre)	75	22,00	28,00	26,92	1,600	-1,370	,693
ISE (post)	75	23,00	28,00	27,33	1,287	-1,941	2,646
OCS (pre)	75	23,00	35,00	31,89	3,497	-,958	-,189
OCS (post)	75	24,00	35,00	32,95	2,625	-1,221	,815
SL (pre)	75	32,00	56,00	48,12	6,526	-,568	-,590
SL (post)	75	37,00	56,00	50,28	4,572	-,685	,077
LC (pre)	75	16,00	28,00	25,28	3,228	-,995	,062
LC (post)	75	20,00	28,00	25,85	2,306	-,822	-,193
MEL (pre)	75	15,00	49,00	39,03	8,384	-,591	-,502

	<i>N</i>	Min	Max	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
MEL (post)	75	25,00	49,00	41,75	6,284	-,678	-,340
TSE (pre)	75	72,00	98,00	90,45	7,060	-,733	-,446
TSE (post)	75	77,00	98,00	93,24	5,104	-,848	-,073
AL (pre)	75	72,00	133,00	112,43	15,969	-,499	-,576
AL (post)	75	85,00	133,00	117,88	10,682	-,368	-,207
RFE_TOP (pre)	75	150,00	231,00	202,88	21,365	-,482	-,729
RFE_TOP (post)	75	170,00	231,00	211,12	14,123	-,305	-,453
PREDISPOSITION (pre)	75	26,00	50,00	40,76	5,761	-,147	-,560
PREDISPOSITION (post)	75	27,00	50,00	42,12	6,020	-,386	-,604
AVOIDANCE (pre)	75	19,00	50,00	37,35	7,815	-,406	-,335
AVOIDANCE (post)	75	14,00	50,00	39,81	6,622	-,792	1,794
AFE_TOP (pre)	75	48,00	100,00	78,11	11,798	-,160	-,311
AFE_TOP (post)	75	59,00	100,00	81,93	10,952	-,231	-,876
SMON (pre)	75	11,00	30,00	24,33	3,957	-,630	,454
SMON (post)	75	15,00	30,00	25,80	3,602	-,751	,282
SEVA (pre)	75	7,00	25,00	20,17	4,176	-,932	,782
SEVA (post)	75	7,00	25,00	21,08	3,965	-1,008	,820
SREIN (pre)	75	7,00	25,00	18,83	4,560	-,415	-,607
SREIN (post)	75	8,00	25,00	19,11	4,474	-,523	-,685
SCM_TOP (pre)	75	40,00	78,00	63,33	9,146	-,359	-,377
SCM_TOP (post)	75	47,00	80,00	65,99	7,842	-,055	-,876

When Skewness and Kurtosis values are examined in Table 4, it can be said that the data are regularly distributed (Mertler & Vannatta, 2005). In other words, Skewness and Kurtosis coefficients for factor scores indicate no deviation from the normal distribution. Thus, in accordance with these results, parametric tests were used to analyze the data. Table 4 also reports the pre and post-test scores for each RFE, AFE, and SCM scale and sub-dimension. When the pre and post-test scores are compared, it is seen that the treatment slightly increased the participants' RFE, AFE, and SCM.

QUANTITATIVE FINDINGS

Research question 1: What is the effect of students' previous IBE experience on readiness, attitude, and self-control/self-management levels of the e-learning process?

In Table 5, when analyzed the t-test results for independent samples to compare pre-test scores of RFE, AFE, and SCM scales and subscales of participants with and without internet-based education experience, it was determined there was a significant difference in favor of the participants, who did not have previous Internet-based education experience, in the sub-dimensions of OCS ($t=2,587$, $p<0.05$); TSE ($t=2.524$, $p<0.05$), RFE_TOP ($t=2.188$, $p<0.05$), PREDISPOSED ($t=2.376$, $p<0.05$), SREIN ($t=2.611$, $p<0.05$) and SCM_TOP ($t=2.644$, $p<0.05$).

Table 5: T-test results for independent samples to compare pre-test scores of RFE, AFE, and SCM scales and subscales of participants with/without Internet-based education experience.

DIMENSIONS_PRETEST	IBE EXPERIENCE	N	X	Sd	df	t	p
CSE	Yes	42	31,64	3,339	73	1,775	0,08
	No	33	32,96	2,310			
ISE	Yes	42	26,92	1,600	61,373	1,632	0,108
	No	33	27,33	1,287			
OCS	Yes	42	31,89	3,497	73	2,587	0,012*
	No	33	32,95	2,625			
SL	Yes	42	48,12	6,526	73	1,846	0,069
	No	33	50,28	4,572			
LC	Yes	42	25,28	3,228	73	0,591	0,556
	No	33	25,85	2,306			
MEL	Yes	42	39,03	8,384	73	1,770	0,081
	No	33	41,75	6,284			
TSE	Yes	42	90,45	7,060	73	2,524	0,014*
	No	33	93,24	5,104			
AL	Yes	42	112,43	15,969	73	1,805	0,075
	No	33	117,88	10,682			
RFE_TOP	Yes	42	202,88	21,365	73	2,188	0,032*
	No	33	211,12	14,123			
PREDISPOSITION (PEL)	Yes	42	40,76	5,761	73	2,376	0,020*
	No	33	42,12	6,02015			
AVOIDANCE	Yes	42	37,35	7,815	73	-0,076	0,940
	No	33	39,81	6,622			
AFE_TOP	Yes	42	78,11	11,798	73	1,076	0,285
	No	33	81,93	10,952			
SMON (SM)	Yes	42	24,33	3,957	73	1,852	0,068
	No	33	25,80	3,602			
SEVA	Yes	42	20,17	4,176	73	1,100	0,275
	No	33	21,08	3,965			
SREIN (SR)	Yes	42	18,83	4,560	73	2,611	0,011*
	No	33	19,11	4,474			
SCM_TOP	Yes	42	63,33	9,146	73	2,644	0,010*
	No	33	65,99	7,842			

EXPERIMENTAL DESIGN FINDINGS

Research question 2: What are the effect of the e-learning process on readiness, attitude, and self-control/self-management levels, considering students' previous IBE experience?

Table 6: The results of paired sample t-test in terms of pre and post-tests

DIMENSIONS	MEASURE	N	X	Sd	df	t	p
CSE	Pretest	75	31,64	3,339	74	-5,096	0,000**
	Posttest	75	32,96	2,310			
ISE	Pretest	75	26,92	1,600	74	-2,360	0,021*
	Posttest	75	27,33	1,287			
SL	Pretest	75	48,12	6,526	74	-3,275	,002**
	Posttest	75	50,28	4,572			
LC	Pretest	75	25,28	3,228	74	-1,623	,109
	Posttest	75	25,85	2,306			
MEL	Pretest	75	39,03	8,384	74	-3,391	,001**
	Posttest	75	41,75	6,284			
AL	Pretest	75	112,43	15,969	74	-3,570	,001**
	Posttest	75	117,88	10,682			
AVOIDANCE	Pretest	75	37,35	7,815	74	-2,968	,004**
	Posttest	75	39,81	6,622			
AFE_TOP	Pretest	75	78,11	11,798	74	-3,213	,002**
	Posttest	75	81,93	10,952			
SMON	Pretest	75	24,33	3,957	74	-3,296	,002**
	Posttest	75	25,80	3,602			
SEVA	Pretest	75	20,17	4,176	74	-2,131	,036*
	Posttest	75	21,08	3,965			

Table 6 shows the paired sample t-test results of the experimental procedure for the participants with and without internet-based education experience. Accordingly, it is seen there is a significant difference in the experimental procedure CSE ($t=-5,096$, $p<0.01$), ISE ($t=-2,360$, $p<0.01$), SL ($t=-3.275$, $p<0.01$), MEL ($t=-3,391$, $p<0.01$), AL ($t=-3,570$, $p<0.01$), AVOIDANCE ($t=-2.968$, $p<0.01$), SMON ($t=-3,296$, $p<0.01$) and SEVA ($t=-2,131$, $p<0.05$) sub-dimensions and the total score of the AFE_TOP ($t=-3,213$, $p<0.01$) scale in favor of the post-test.

Research question 2a: What are the students' opinions about the program they were enrolled in the e-learning process during the experiment, considering students' previous IBE experience?

As seen in Table 7, the previously-IBE-experienced participants' opinions about the program in the study take place in the sub-dimensions of "Methods Used, Transferring the Content, Motivation, Feedback and Measurement, and Assessment" sub-dimensions. Participant K39 shared her/his experiences on the program by saying, "it was a very successful platform in terms of the content transfer.

Both the lecture videos and the lecture notes written under the videos were comprehensible. By presenting us with a badge at the end of each lesson as feedback and motivation elements, the platform motivated us by showing how far we progressed and how many lessons remain to achieve the certificate.”

Table 7: Qualitative analysis of the views on "the theme of opinion for the program as a result of the experience gained within the study."

HAVING EXPERIENCE	SUB-THEME	CODE	PARTICIPANT
Yes	The Methods Used	By doing-By living	K6, K8
		Verbal lecture	K8, K13, K31, K68
		Case study	K8
		Demonstration	K56
		Constructivism	K70
	Transferring the content	Sufficiency	K3, K7
		Video	K1, K7, K12, K22, K68
		Video and written text	K10, K13, K21, K24, K25, K26, K39, K45, K49, K62
	Motivation	Progressive	K1, K12, K23, K25, K30, K31, K33, K37, K40, K45, K50, K51, K56, K59, K60, K62, K65, K69, K72, K75
		Rosette	K7, K8, K22, K24, K39, K40
		Certificate	K13, K62
		Individual study	K27, K29, K40, K45, K71
		Verbal reinforcer	K65, K68
	Feedback	Live support	K22, K70, K71
Instant feedback		K6, K7, K8, K10, K21, K23, K24, K25, K26, K31, K50, K51, K58, K59, K60, K62, K68, K69, K70, K75	
assessment and evaluation		K7	
No	No effect	Due to measurement & assessment system	K4, K5, K9, K41, K42, K44, K46, K48, K52, K53
	It has become a factor providing motivation	It helped him/her to complete the process	K55, K57, K61, K74
		He/she wanted it for business life	K11, K14, K15, K17, K19, K20, K28, K32, K34, K35, K36, K38, K43, K47, K54, K63, K64, K66, K73
	The methods used	Small steps	K66, K74
		Demonstration	K52
	Transferring the content	Video	K9, K11, K14, K19, K28, K32, K34, K35, K41, K42, K43, K46, K47, K52, K54, K55, K57, K61, K63, K73

HAVING EXPERIENCE	SUB-THEME	CODE	PARTICIPANT
		Text	K14, K28, K43, K52, K55, K61
		Case study	K9, K20
	Motivation	Rosette	K9, K11, K17, K19, K28, K35, K41, K42, K43, K54, K57, K74
		Certificate	K36, K41, K43, K46, K54, K57, K73
		Verbal reinforcement	K9, K14, K28, K63, K64
	Feedback	Insufficient	K11
		Hint	K43, K46, K48
		Live support	K9, K61, K73
		Instant	K14, K19, K20, K32, K35, K42, K43, K47, K53, K54, K55, K63, K66
	Assessment	Section end	K11, K14, K19, K28, K32, K35, K41, K42, K43, K46, K47, K52, K53, K54, K55, K57, K63, K74
		Process-oriented	K15

Not having any previous IBE experience, the opinions of the participants regarding the program take place in the sub-dimensions, "No Effect, Motivation Provider, Methods Used, Transfer of Content, Motivation, Feedback, Assessment." Stating his/her opinions on the program, K5 says that "The program content consists of the subjects such as when you have a business website or mobile application on the internet, how to reach more customers, how to analyze them, and how to adjust SEO, SEM. So I have learned that it is necessary to work systematically for permanent business life in the internet world. I understood that some expenses should be made for success first. I saw I could not do such a job alone. I perceived the necessity of buying ads, using Analytics programs to analyze customers. More people can be reached, and content is transferred with applications such as SEO. The principal thing is to be able to market your work. I found out that marketing is three-time harder than producing. Giving importance to customer opinions and providing blogs for their comments seems a significant way to get feedback to our site or app. If the user comments negatively, it means you need to fix things, if they give good comments, then you will be motivated. By this time, I had opened several websites and blogs. I could not reach even 50 people in any of them. Now, I am more conscious. I think, if I ever have a business of my own, I will develop a fully systemized website and mobile application by sparing no expense. I will include all the systems such as Market Finder, Analytics, and SEO settings that I can follow every business activity." After this statement, the participant is understood that he/she could integrate the program he had attended with his life.

Research question 2b: What are the students' opinions about the e-learning process during the experiment, considering students' previous IBE experience?

As seen in Table 8 Participants with Internet-based education experience expressed their opinions under two sub-dimensions as "Positive Opinions and Negative Opinions" regarding the process they experienced. Regarding the process, K1 declares that he has achieved a remarkable gain for lifelong learning and says that "I think the knowledge I gained will benefit me not only in my teaching profession but throughout my life." "The course content mostly consisted of articles. Courses rarely were included in video or audio format. Some lessons were not in the Turkish language." Like K1, who

also stated their negative opinions in their statements, K6 said, “the videos were in English, and there was no Turkish subtitle. Some English expression usages and insufficient Turkish resources caused me to have difficulties in understanding some parts.” They evaluated negatively that a part of the education was held in a foreign language. Besides, K21 said to have problems in getting support during the process by stating, “Not having a teacher was a disadvantage for me. Because it was impossible to get instant feedback for the problems. Since the topics were on the texts and reading was boring, I did not read most things. Attending the class at a specified time made me postpone the lesson. While studying, sometimes I lost my attention because of things around me, which lowered my motivation.”

Table 8: The qualitative analysis of the views on the theme of "opinion for the experience gained within the study."

HAVING EXPERIENCE	SUB-THEME	CODE	PARTICIPANT	
Yes	Positive opinions	Lifelong learning	K1	
		The certificate itself	K7, K25, K50, K56	
		Richness of content	K3, K22, K23, K24, K26, K30, K31, K33, K37, K65, K68, K71, K75	
		Professional development	K6, K8, K50, K59	
		Developing an attitude towards e-learning	K6, K18, K45, K49, K58, K62, K67, K69	
		Individual learning experience	K7, K13, K21, K23, K26, K27, K30, K39, K51, K60, K62, K68, K70	
		Accessibility	K2, K16, K24, K25, K26, K29, K37, K40, K59, K62, K65, K68, K70, K71, K72	
		Self-improvement	K13, K21, K27, K37	
		Free of charge	K26, K59, K62	
		Negative opinions	Not in the mother language	K1, K6, K65
	Less video		K1, K10, K62	
	No interaction		K2, K21, K23, K24, K71	
	Evaluation system		K3, K7, K8, K12, K13, K29, K39, K59, K60, K67, K69, K70	
	Insufficient feedback		K7, K8, K18, K24, K27, K31, K37, K70	
	Content is too long/missing		K25, K27, K30, K49, K50, K62	
	Lack of live support		K39, K40, K72, K75	
	Lack of motivation		K21, K22, K23	
	No	Positive opinions	The joy of e-learning	K4, K14, K17, K19, K20, K28, K32, K35, K38, K41, K42, K43, K44, K52, K53, K54, K55, K57, K64, K66, K73, K74
			Getting new information	K5, K15, K34, K36, K46, K47, K48, K61, K63

HAVING EXPERIENCE	SUB-THEME	CODE	PARTICIPANT
		Individual learning	K9, K11
		Certificate	K11
	Negative opinions	Content sharing	K4, K19, K28, K36, K42, K47, K53
		assessment and evaluation	K11, K17, K32, K34, K44, K48, K52, K55, K74
		Live support	K9, K28, K38, K43, K57
		Feedbacks	K54, K64
		Duration of application	K15, K63
		Not in the Mother Language	K61

One of the participants not having previous IBE experience, K4 expressed that he/she had pleasure in taking the responsibility of learning individually and evaluating it as an individual in the e-learning process by saying, “As a person being positive to e-learning but having no previous experience in this sense, I confirmed its usefulness by seeing e-learning in an actual application phase. It is an excellent program that can be attended to spread e-learning and break prejudices. In this process, I have seen again that it is more enjoyable to follow lessons on the internet than regular education. Indeed, this experience increased my already positive viewpoint one level more.” Expressing the negative situation regarding the process, K32 stated that, “the only negative point was that after watching the videos once, we passed the lessons because the system was showing us the answers.”

Research question 2c: On students’ attitudes towards e-learning processes, what is the effect of the certificate presented to learners in IBE environments, considering students’ previous IBE experience?

Table 9: Qualitative analysis of the views of the participants with/without IBE experience on the theme of attitude towards e-learning processes

HAVING EXPERIENCE	SUB-THEME	CODE	PARTICIPANT
Yes	Certified, Significant	The program courses	K2, K10, K12, K25, K27
		Business life	K1, K16, K24, K26, K29, K33, K37, K50, K51, K56, K58, K59, K60, K62, K65, K69, K71, K72
		The certificate itself	K12, K40, K68
		Self-improvement	K40, K67
	Not certified, significant	Business life	K6, K21
		The certificate itself	K6, K13
	it had an effect	The certificate itself	K3, K18, K21, K22, K23, K24, K25, K26, K29, K30, K33, K39, K40, K45, K50, K51, K59, K60, K62, K67, K69, K70, K72, K75
		Specialization in another field	K10, K12, K13

HAVING EXPERIENCE	SUB-THEME	CODE	PARTICIPANT
		Trust in the e-learning process	K7, K16
		trust in self-study	K27, K49, K62
		content of the training	K26, K39, K45, K65, K71
		Accessibility	K37, K56
	It had no effect		K1, K2, K6, K58
No	Certified, significant	The program courses	K9, K36, K43
		Business life	K15, K32, K34
		The certificate itself	K11, K14, K17, K54, K66, K74
	Not certified, significant	Business life	K20, K38
		The certificate itself	K61
	Certified, insignificant	consider it useless	K5, K41
		Individual improvement	K19, K35, K42, K44, K46, K47, K48, K57, K64, K73

As seen in Table 9, the 30 participants with IBE experience received certificates, and 29 of them found it significant and declared this on the form with "The program courses, Business life, The importance of the certificate itself, and Personal development" codes. Participant K1 suggested the contribution of obtaining a certificate to business life with his/her words, "I got a completion certificate at the end of the program. I think the certificate is important because I believe it will benefit me professionally." K67 expresses the support of the process for his/her personal development by saying, "Of course, getting a certificate out of your profession cannot be ignored. It is a motivating factor. Developing in different areas, learning new things, expanding horizons, and being successful in different subjects made me happy, self-confident, and better equipped." Seeing the certification significant, K68 said that "Getting the certificate was also important. I got the certificate. It can motivate that people obtain an actual document after completing a job."

Although four of the participants having previous IBE experience did not receive a certificate, they stated that gaining a certificate is substantial. K6 from these participants explained his thoughts by saying, "Getting a certificate is important because as a result, the certificate is concrete proof that a job has been accomplished, and it will also contribute to business life. However, I could not get the certificate because the program certificate was subject to a fee. That's why I'm a little sad."

The 38 certificated participants with previous IBE experience stated that getting a certificate had an effect on their attitudes to e-learning processes. Regarding the subject, K49 shared his findings of his confidence in individual work and his awareness of the ease of access by saying, "The subject headings were better comprehended because the activities were fully learned in the process and the individuals were taken full efficiency from the learning activities."

Among the participants not having previous IBE experience, 13 participants received certificates and deemed the certification significant, while three of them did not receive the certificate, although they considered it substantial. K11, who found that getting a certificate is notable for education life, said, "Having a certificate at the end of the course provided a meaningful motivation alongside the knowledge I got from the course. I think I was more motivated in the lessons in this way." He stated that the idea of reaching the certificate is significant.

Not having previous Internet-based education experience, K41, who received the certificate, evaluated the certification as significant by considering some problems they had experienced in the teaching process. K41 said, "I received a certificate from the Google Digital Workshop, but I completed

this by solving end-of-topic tests without watching lecture videos. I have concluded that in the existing (any) e-learning process, the program quality is determined by the assessment and evaluation system used rather than the information in its content. Because knowledge can be obtained. But if the measurement and evaluation system used is inefficient, I do not think this existing e-learning process will be helpful.”

CONCLUSION AND DISCUSSION

This study aimed to reveal the effect of the previous Internet-based education (IBE) experiences of the students of the Department of Computer Education and Instructional Technology (CEIT) on the readiness, attitude, and self-control / self-management variables towards the e-learning process, and also to determine the students’ opinions.

RQ 1. THE EFFECT OF THE STUDENTS’ STATUS OF HAVING PREVIOUS IBE EXPERIENCE ON READINESS, ATTITUDE, AND LEVELS OF SELF-CONTROL/SELF-MANAGEMENT

In the total score of students’ Readiness for e-learning (RFE) and the dimension of the Technology usage Self-Efficacy (TSE), a significant difference is observed in terms of their previous IBE experience. This situation is similar in the sub-dimension of the Online Communication Self-efficacy (OCS), which serves to explain the upper dimension TSE in explaining the RFE variable. Considering the Working Group’s previous IBE experience, the scores obtained from the sub-dimensions of RFE, TSE, and OCS can be suggested as inhomogeneous. Therefore, the effectiveness of the experiment has not been tested in these dimensions. The findings obtained as a result of the interviews parallel with the quantitative findings. In line with the obtained results, a significant difference is observed in terms of the students’ previous IBE experience in the total score of their readiness for e-learning (RFE) and technology use self-efficacy (TSE). This situation is similar in the online communication self-efficacy (OCS) sub-dimension explaining TSE, which is an upper dimension in explaining the RFE variable. Considering the previous experience of IBE in the study group, it can be said that the scores obtained from the RFE, TSE, and OCS sub-dimensions are not homogeneous (equal). Therefore, the effectiveness of the experimental process at these dimensions has not been tested. The findings obtained as a result of the interviews are also in parallel with the quantitative findings. Having previous IBE experience K8 expressed that “The methods used were teaching with definitions, verbal expression, teaching with the scenario, computer-aided education, case study method.” K66, who has no previous experience with IBE, stated that “The method used in transferring the content contributed to the teaching of the lesson in a fun and fluent way because it divided the lesson into small parts.” According to these statements, it is seen that the students with previous IBE experience declared five different methods used in the program, and the students who did not have previous IBE experience stated two different ways. It can be said that students with previous IBE experience have a higher level of awareness of the methods and techniques used in the course they are enrolled in, supporting the difference achieved in the sub-dimensions of TSE and OCS. Indeed, in the study of Callo and Yazon (2020), the results revealed that the respondent’s familiarity and capability, preparation, device and access connectivity, self-efficacy, and experience with technology significantly influence their readiness on the conduct of online teaching and learning modality. Besides, the findings obtained in the study show that students with previous IBE experience use IBE environments in the course and for personal development.

RQ 2. THE EFFECT OF THE E-LEARNING PROCESS ON READINESS, ATTITUDE, AND LEVELS OF SELF-CONTROL/SELF-MANAGEMENT

The findings obtained from the experimental process did not have a significant effect only on the learner control (LC) sub-dimension, besides, the total score obtained from the other RFE scales and

the experimental procedure performed in the sub-dimensions of computer self-efficacy (CSE), internet self-efficacy (ISE), self-learning (SL) and e-learning motivation (MEL) differ significantly in favor of the posttest. Accordingly, although it is possible for students having previous IBE experience to use this experience within the scope of the course and for personal development, in line with this purpose, it is thought that the difference obtained in terms of readiness, attitude, and self-control/self-management of students towards e-learning processes has been due to the experimental study. This finding is parallel with the qualitative findings from which students' views about the program were obtained. So much so that, regardless of whether or not students had previous IBE experience, e-learning process experiences support the difference achieved in favor of the posttest in terms of readiness, attitude, and self-control/self-management in the content transfer, motivation, and feedback subthemes. For example, K39, who had previous experience with IBE, says that "it was a very successful platform in transferring content. Both the course videos and the lecture notes written under the videos were very successful really to understand." Not having any IBE experience before, K52 states his/her opinions on the content transfer by saying, "video contents were shared both as transcripts and as documents. Thanks to this application, I also learned about the fields of usage of what I learned more easily. The platform also offered the user manuals of the program tools. There were guide buttons in the manuals where you could try the tools. In this way, I had the chance to examine the vehicles with the guide's help." Similarly, the findings on the motivation sub-theme from the interviews with the students support the difference in favor of the posttest in attitude, readiness, and self-management/self-control dimensions for students with and without previous IBE experience. For example, K40 with previous IBE experience reflected his thoughts as "I attended in the Digital Marketing courses. In the course, there is a badge-system. The badges are being presented as many as the number of courses to reach the certificate. In this system, when you complete the topics, the badges are being unlocked. I found this approach motivational. Inexperienced K9 expressed his/her opinions by stating, "badges are being presented when the subjects are completed, and I found this encouraging. When 26 badges are completed, you can enter the final exam. If you fail three times, you have one-week time to prepare again. During this time, you can listen to the lessons again. But you have to wait one week to take the final exam. The feedback in the process is in "Well done. Right" "You are very close" "Unfortunately, wrong" formations. Differently, the K27 participant is a specific indicator that the motivation sub-theme supports the significant difference obtained in favor of the post-test for SL, which is the sub-dimension of RFE. He/she says that "I attended 106 courses online under the subject of Digital Marketing. I was motivated to learn lessons by self-discipline and studied regularly." Besides, it can be said that the findings obtained in the feedback sub-theme support the difference obtained in favor of the posttest as a result of the experimental procedure for students with and without previous IBE experience. K71, one of the students with IBE experience, says that "The program helped me understand my department better. It is a very nice feature that I can watch the course again, and if I do not understand, I can return. Another feature of the program is to be able to reach the teacher via e-mail and get feedback when a problem occurs. We can see the trainer profile, announcements. Since we purchase the program, we can see how our learning will take place through announcements." While explaining his thoughts in the form, K73, who does not have previous IBE experience, says "We can get support by stating the problems we encountered in the help section. There are content and certification for motivational elements. I generally liked the platform." Accordingly, it can be said that the opinions obtained in the sub-themes of transferring the content, motivation, and feedback support the significant difference obtained in the dimensions of attitude, readiness, and self-management / self-control as a result of the experimental process, regardless of the previous experience of IBE. It can be said the learning environment's characteristics regarding the experimental setup are efficient on the result. Such that, Schmeck et al. (1991) state that the outcome of individual and environmental factors with which the learner interacts is significant in explaining learning styles. Ergün and Adibatmaz (2020) give examples of personal factors include intelligence, age, educational experience, and prior knowledge, while contextual factors include task structure, the complexity of information, learning objectives, and teaching methods. Accordingly, in light of the findings, it can be said that the content in the learning

environment, transfer method, motivation, and feedbacks are efficient, and these factors impact individual factors such as readiness, attitude, and self-management. The result obtained regarding the learner control sub-dimension is also thought to be related to learning styles and self-regulation skills. In the findings of Ergün and Adibatmaz (2020), it is stated that students, who set a learning goal, can manage their time in line with this goal, put effort, organize their learning considering their needs, pay attention to learning situations or the learning object, prefer to work with visual elements, enjoy doing research, can remember easily and study with visuals that facilitate retrieval, prefer to work independently, take responsibility for their learning, and believe in their learning ability, have higher levels of engagement. Following a more flexible, more learner-centered approach and including more autonomy, the online environments where there is no face-to-face learning, students face difficulties in self-regulation (Kuo et al., 2014; Niemi et al., 2002). Besides, the qualitative findings of the learners' positive and negative opinions about the experience they gained in IBE environments during the experimental process also support the results obtained by the experimental process. Regardless of the students' previous experience with the IBE, it is seen that those giving positive opinions draw attention to the certificate and individual learning via codes. Codes coming to the fore as a result of qualitative interviews are thought to support the significant difference achieved in the dimensions of self-learning (SL) and motivation for e-learning (MEL). For example, K7, who has previous IBE experience, explains his/her opinion by saying, "I am happy to get a certificate and to get information about a new subject. I think that the lessons given in these environments have a great impact on personal development. I think it is important for people to take responsibility for their learning. Since individual learning also takes place in internet-based educational environments, there is no impeding condition. I think that full learning can be possible with these environments." Not having previous IBE experience, K11 says that "It was nice that I could attend classes at my convenient time and continue with transcripts when I did not want to watch videos. It was motivating that the questions were so easy and thus easily enabling us to move to other lessons. Having a certificate is also very motivating. I got interesting information about digital marketing and advertisements. The narrators' speech was very fluent, so it did not bother people." On the other hand, qualitative findings of negative opinions stand out with the codes of content sharing, assessment and evaluation, interaction, feedback mechanism, and the program's foreign language, regardless of the students' previous experience with IBE. These qualitative findings obtained after the interviews support the quantitative findings of the AFE variable and AVOIDANCE sub-dimension. For example, that the e-learning environment is not in the mother language may impact learners' behavior of avoiding these environments. Similarly, the insufficient interaction expressed by learners may also affect attitudes towards e-learning environments. K6, who had e-learning experience before, said that "I did not encounter anything that would create a negative opinion in this training, but as in my previous statement, the videos were in English, and there was no Turkish written text. Using some expressions in English and the lack of references in Turkish caused me to have difficulty understanding some parts. Except for this situation, I cannot say that the program has a very negative side." While expressing his opinion, 61, who had no previous IBE experience, stated a parallel opinion by saying, "I had difficulty because some parts were in English."

In summary, it can be said that when the contents offered to students in e-learning environments support their professional development, their attitudes towards these environments, their readiness, and self-control/self-management skills differ significantly in terms of the posttest.

This finding can be explained by the personal development dimension of Moos' (1979) social climate theory. This dimension evaluates the primary aspects that the individual's personal development and self-improvement occur in a particular environment (Kiritz & Moos, 1974). Individuals' orientation towards the learning contents offered in e-learning environments in line with their personal goals and interests supports the result. The results obtained in terms of attitude and readiness variables in which CEIT students gain experience in e-learning environments regarding subjects closely related to their professional development during the experimental process can be explained by the technology

acceptance model (TAM) (Davis, 1989). Johnson (1973) expresses readiness as an individual's capacity to benefit or gain from education. TAM reveals the effect of perceived usefulness, perceived ease of use, and attitude variables on the intention to perform a behavior (Davis, 1989). Some studies stated that readiness is significant in the technology acceptance model (Cheung et al., 2011; Shabli & Yaacob, 2012). While benefit perception is a significant predictor of attitude and usage behavior in TAM, ease of use perception also affects perception of benefit. Students tend to develop a positive attitude towards e-learning environments based on the perception that e-learning contents, which are intimately related to their professional development, benefit them. This result is also in line with the qualitative findings from which the student opinions about the attitudes towards e-learning processes regarding the certificate presented were obtained. K6, who had previous IBE experience, revealed his/her view by saying, "Getting a certificate is important for me, because the certificate is tangible proof that there was an achievement there, and it will also contribute to business life. However, I could not get the certificate because the program certificate was subject to a fee. That's why I'm a little sad." and K15, who had no previous IBE experience, says that "Yes, I received the certificate. Of course, it is significant that it takes place on my CV." When evaluated together, it can be said that these expressions support the attitudes that the certificate can be useful in students' professional life in the future. When this finding is evaluated within the scope of TYYÇ, it can be said that instead of having a school diploma, the importance of having a certificate supporting individuals' professional development emerges (YOKAK, 2019). Because knowledge is changing and roles are transforming. Now, the knowledge obtained in the past is insufficient to solve the problems of today. The contents are offered to learners in e-learning environments have dynamics, including contemporary methods that will solve current problems. Since the certificate presented to the students at the end of the learning process can be considered as an indicator of this situation, the perception about the students' opinions about the certificate in a positive attitude might become because of this.

Similarly, in the study, there is a difference in terms of e-learning predisposition (PEL), which is the sub-dimension of the attitude for e-learning (AFE) variable, depending on the previous IBE experience. When this result is examined in depth with a qualitative question asked to students, it is revealed that the concrete output obtained at the end of the process is a factor affecting their attitudes on e-learning disposition, since the students with previous IBE experience more embrace the process. Besides, it is stated that the predisposition of students who have previous experience in e-learning environments can be explained by their awareness level. Students develop a positive attitude towards the process through the certificates offered to them in these environments. However, a similar situation is valid for those who have not previously experienced these environments. It is observed that presenting a certificate to students, who do not have previous IBE experience and taking part in an e-learning environment for the first time, can also guide their attitudes on e-learning environments. For example, it can be said that K53's expression "I have learned Google tools, I will be able to use Google tools in my classroom in the future" supports the difference obtained in the disposition sub-dimension of a student who has not taken an IBE before.

Finally, the results obtained in this study, in which students' previous IBE experiences were examined in terms of the self-control/self-control (SCM) variable, differ in terms of SCM total score and self-reinforcing (SR). Besides, in the findings where the student views about the program were obtained qualitatively, the "status of having IBE experience" differs from the "assessment and evaluation" perspective. When looking at the statement of K41, one of the students who did not have IBE experience before, "I tried to solve the general tests directly at the end of the course without wasting time with videos because I registered just to get a certificate," and the following situation stands out: It is possible to solve general tests without watching the lectures, but when you have one mistake, it leads you to watch the lectures without giving the chance to solve it again. But here, again, you can solve the end-of-the-topic tests without watching the videos and pass the general test at the end of the course and get the course badge for certification progress. It is suggested that the opinion "It is possible to get a certificate only by solving the tests" may be related to the self-reinforcing and self-control/self-management variable. Because, considering the alternative assessment and evaluation

approaches in contrast to traditional approaches in e-learning environments, this approach is significant for individuals to empower themselves in terms of self-control/self-management. Although at the end of the experimental process, students having no previous experience gained experience, at this point, there is an increasing experience of the group having previous IBE experience.

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