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The Effect of Students' Distance Education Self-Efficacy Beliefs on Their Readiness for Online Learning and Their Academic Life Satisfaction

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Abstract

This study aimed to determine the effect of higher education students' distance education self-efficacy beliefs on their readiness for online learning and academic life satisfaction. In addition to this purpose of the study, it was also aimed at determining the effect of higher education students' readiness for online learning on their academic life satisfaction. A relational screening model was used in this quantitative study. The population of the study consisted of 18,157 students enrolled in the spring semester of 2022-2023 at Kafkas University in the east of the Republic of Turkiye. The sample of the study consisted of 621 students. Data collection tools used in this study were the "Distance Education Self-Efficacy Beliefs Scale," the "Online Learning Readiness Scale," and the "Academic Life Satisfaction Scale." Since the data met the assumptions of parametric analysis, parametric analysis techniques were used. Based on the results of the study, it was determined that students' distance education self-efficacy beliefs and readiness for online learning were high, while their academic life satisfaction was moderate. Moreover, it was determined that distance education self-efficacy beliefs had an effect of 91% on readiness for online learning and 75% on academic life satisfaction. Another result of the study is that the level of readiness for online learning has an effect of 69% on academic life satisfaction.

Keywords: Distance Education, Self-Efficacy, Readiness, Academic Life Satisfaction

Introduction

Technological advances and developments have had an impact on educational processes as in many other fields, and thus, with the use of various online learning tools by instructors and students, the place and time of education have become more flexible than ever before. In addition to the innovations in online learning tools, in many parts of the world after the COVID-19 pandemic, education at all levels was carried out exclusively through online methods for a certain period due to the emergence of distance education as a necessity rather than a choice (Williamson et al., 2020). Thus, the effectiveness and efficiency of distance education in achieving learning outcomes have become much more important (Helm et al., 2021; Lynch, 2020). The concepts of distance education and online learning are frequently used in the literature (Kentnor, 2015; Moore et al., 2011) to explain the communication and interaction processes experienced in the process of transferring learning outcomes from instructors to students in different physical environments through technological tools (Aydemir, 2018). Distance education can be defined as learning that takes place through interactions between the instructor and the learner despite being in different environments (Harry et al., 2013), while online learning is learning that takes place using digital tools (Farmer, 2019). However, many sources use these two concepts interchangeably (Moore & Kearsley, 2011; Unger & Meiran, 2020; Yüksel, 2021).

Akıncı and Pişkin-Tunç (2021) emphasize that to increase the quality of distance education, especially the teaching and evaluation process and the selection of materials, should be made in accordance with the objectives. It is also known that various individual characteristics of students such as information and technology literacy, educational satisfaction, attitude towards online learning, distance learning self-efficacy, and readiness for online learning affect the online learning process (Altunçekiç, 2022; Ezziane, 2007; Harsasi & Sutawijaya, 2018; İlhan & Çetin, 2013; Jewitt, 2006; Oliver, 2001). As a result of the

gains in distance education processes, students' academic life satisfaction also differs (Bajwa et al., 2016). Academic life satisfaction is very important for successful university years, which is necessary for the realization of students' personal, educational, and professional expectations (McKenzie & Schweitzer, 2001; Odacı et al., 2021). Since this study is designed based on the variables of distance learning self-efficacy, readiness for online learning, and academic life satisfaction, the relevant variables were first explained. Then, the studies in the literature were evaluated.

While competence is defined as the knowledge and skills needed to perform a task in the right way (Şahin, 2004), self-efficacy, which was introduced to the literature by Albert Bandura, is defined as the individual's ability to plan and execute the actions needed to achieve their goals (Bandura, 1997). Schunk (1989) explains self-efficacy as an individual's efficacy beliefs in the process of achieving new knowledge-skills through the effective use of knowledge-skills. In other words, self-efficacy is the belief that an individual has in any subject (Sakız, 2013). Individuals' high self-efficacy beliefs can contribute to the achievement of relevant outcomes (Olivier & Shapiro, 1993; Zimmerman, 1995). For this reason, students with high levels of distance learning self-efficacy can support the benefits derived from the distance learning process (Alqurashi, 2016; Tang & Tseng, 2013). It is well-established that there is a relationship between self-efficacy beliefs and readiness (Ferguson et al., 2016; Mahat et al., 2012). The notion of preparedness, initially introduced by Thorndike, refers to the cognitive, affective, and behavioral characteristics required for successful learning (Senemoğlu, 2012). Understanding students' readiness levels during the learning process can aid in establishing attainable goals, designing appropriate content, and organizing educational processes (Blignaut & Els, 2010; Harman & Çelikler, 2012). Online learning readiness is defined as an individual's preparedness to learn in online environments (Rohayani, 2015). Learners' readiness levels and self-efficacy beliefs may impact their overall life satisfaction (Brockett, 1985; Köksal et al., 2015; Yağcı et al., 2021). Life satisfaction pertains to how individuals assess the overall quality of their lives in all circumstances (Veenhoven, 1996). Life satisfaction can be influenced by various factors, including parents, friends, financial conditions, health, safety, and in-school and out-of-school activities (Duffy, 2004; Martikainen, 2009). Academic life satisfaction is the summation of students' evaluations of their current academic environment and their overall perception of higher education. It is recognized that students who have high academic satisfaction have more positive attitudes towards learning and, therefore, reap greater benefits in academic achievement (Nogueira et al., 2019).

When the literature is reviewed, it can be noticed that studies on distance learning self-efficacy, readiness for online learning, and academic life satisfaction often examine differentiation according to variables such as gender, age, grade level, computer and Internet ownership (Bircan & Zabun, 2021; Chung et al., 2020; Demir-Öztürk & Eren, 2021; Gömleksiz & Pullu, 2020; Güney & Mete, 2022; Severino et al., 2011; Ünal et al., 2021; Yelpaze & Yakar, 2019; Yıldız & Seferoğlu, 2020). In addition, studies have examined various areas, including distance education self-efficacy and self-regulation (Puzziferro, 2008; Sun & Rueda, 2012), academic achievement (DeTure, 2004), e-learning style (Özaydi-Özkara & Ibili, 2021), motivation (Wang et al., 2008), satisfaction (Jan, 2015) and academic life satisfaction (Koca et al.,), readiness for online learning and attitude towards online learning (Hergüner et al., 2020), academic achievement (Çiğdem & Öztürk, 2016; Pham & Dau, 2022; Wang et al. 2022), satisfaction (Kumar, 2021), perception of online learning (Hung et al., 2010), academic life satisfaction and academic achievement (Balkıs, 2013; Dallı, 2014), and academic procrastination (Çıkrıkçı & Erzen, 2020).

This study was conducted since there is a need for a study to determine the relationship and effect levels between distance education self-efficacy, readiness for online learning, and academic life satisfaction in the literature. The study aimed to determine the distance education self-efficacy beliefs, readiness for online learning, and academic life satisfaction levels of higher education students. Additionally, it aimed to determine the level of relationship between distance education self-efficacy beliefs, readiness for online learning, and academic life satisfaction of higher education students. Another aim of this study is to determine the effect of higher education students' distance education self-efficacy beliefs on their readiness for online learning and academic life satisfaction and to determine the effect of higher education students' readiness for online learning on their academic life satisfaction. The research model and questions created within the scope of the study are presented in the method section.

METHOD
Research Design and Research Questions

A relational survey model was used in this quantitative study. The reason for using the relational survey model is that relational survey studies can determine the relationship, effect, and predictive power between variables (Bahtiyar & Can, 2016; Karasar, 2013). This study aimed to determine the relationship and effect between distance learning self-efficacy beliefs, readiness for online learning, and academic life satisfaction. The research model established in this direction is presented in Figure 1 & 2.
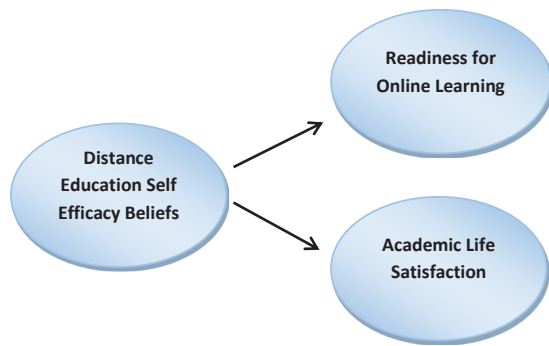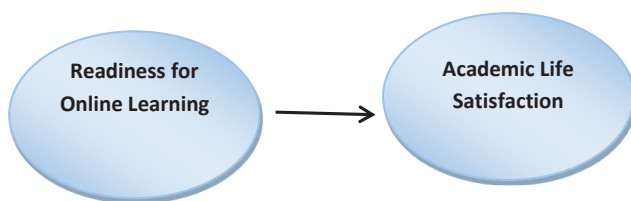
Fig. 1: Research Model 1

Fig. 2: Research model 2

The research questions aimed at being answered along the axis of the research model are grouped under four headings:

1. What are the distance education self-efficacy beliefs, readiness for online learning, and academic life satisfaction levels of higher education students?
2. Is there a significant relationship between higher education students' distance education self-efficacy beliefs, readiness for online learning, and academic life satisfaction?
3. What is the level of effect of higher education students' distance education self-efficacy beliefs on their readiness for online learning and academic life satisfaction?
4. What is the effect of higher education students' readiness for online learning on their academic life satisfaction?

Population and Sample

While the study population consisted of 18,157 (associate degree: 6,289; undergraduate: 11,868) students studying at Kafkas University in the east of the Republic of Turkiye, it was determined that at least 376 students should be reached based on the sample calculation process (*calculated with 95% reliability and 5% error criteria*). However, data were obtained from 621 individuals by reaching the maximum number of individuals that could be reached. The sample was randomly selected. The reason for this is to give each individual an equal right to be selected. The distribution of the sample according to various characteristics is shown in Table 1.

Table 1: Population and Sample

Variables		n	%
Gender	Female	410	55.0
	Male	211	45.0
Higher Education Level	Associate	241	29.8
	Undergraduate	346	59.6
	Graduate	34	10.6
Grade	Below 2.00	61	8.9
	2.01-3.00	335	54.3
	3.01-4.00	225	36.7
Year	1	302	33.7
	2	83	38.9
	3	125	17.1
	4	111	10.3

Data Collection Instruments

The data of the study were obtained using the *Distance Education Self-Efficacy Belief Scale-DESEB* (Altunçekiç, 2022), *Online Learning Readiness Scale-OLRS* (İlhan & Çetin, 2013), and *Academic Life Satisfaction Scale-ALSS* (Odacı et al., 2021). The DESEB scale consists of 19 items and three sub-dimensions (*Application Dimension-AD, Content Knowledge Dimension-CKD, Interaction Dimension-ID)* and the OLRS consists of 18 items and five sub-dimensions (*Computer and Internet Use Self-Efficacy Dimension-CIUSED, Self-Learning Dimension-SLD, Learning Control Dimension-LCD, Learning Motivation Dimension-LMD*, and *Online Communication Self-Efficacy Dimension-OCSED*), while the ALSS consists of 8 items and two sub-dimensions (*Academic Environment Satisfaction Dimension-AESD and Personal Satisfaction Dimension-PSD*). The means obtained from the five-point Likert scales are evaluated as follows: "1.00-1.80=Very low, 1.81-2.60=Low, 2.61-3.40=Moderate, 3.41-4.20=High, 4.21-5.00=Very high". The validity and reliability of the data collection instruments were previously tested during the development of the scales. In addition, to ensure the validity and reliability of the study, the validity and reliability of the data collection instruments were also verified in this study. In this context, the content and face validity of the data collection instruments were tested by three educational experts with at least a Ph.D. degree. While the construct validity of the data collection instruments was tested using confirmatory factor analysis (CFA), the reliability of the data was tested using the Cronbach's alpha internal consistency coefficient (CA). The diagrams and goodness of fit values obtained in CFA are shown in Figure 3 and Table 2.
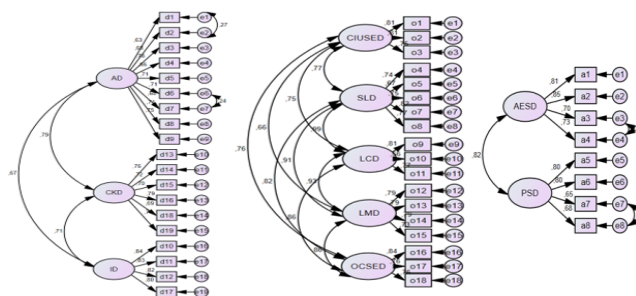
**Fig. 3. CFA diagrams of DESEB, OLRS and ALSS
(from left to right)**

In the CFA diagrams presented in Figure 3, it was determined that the item factor loadings of all items were greater than .50. Therefore, according to Jöreskog and Sorbom (1993), it was concluded that each item was significant for the scales as a whole. To improve the fit index values obtained in the CFA, a modification process was performed between items 1-2 and 6-7 in the DESEB and between items 3-4 and 7-8 in the ALSS. The final fit indices obtained in the CFA are presented in Table 2. Basic range values for CFA are presented in the "Data Analysis – Procedure" section.

Examining Table 2, it is evident that the fit index values obtained in the CFAs performed on the data collection tools are within the basic range values. In addition, the Cronbach's

Alpha internal consistency coefficients (CA) obtained to verify the reliability of the data collection instruments are presented in Table 3.

According to Yıldız and Uzunsakal (2018), CA values are categorized as insufficient when ranging from 0 to .40, low when ranging from .41 to .60, moderate when ranging from .61 to .80, and high when ranging from .81 to 1. Thus, the data obtained from the data collection tools has a high level of reliability. Finally, based on the analyses and controls conducted to validate and ensure the reliability of the study, it can be confidently stated that the data collection tools are valid, and the data collected are reliable.

Data Analysis– Procedure

For the ethical conduct of the study, the necessary permissions to use the scales and collect were obtained, and the participation process was based on the principle of volunteerism. In addition to the ethical measures taken, the ethical suitability of the study was approved by a state university. In the data analysis process, the normality of the distribution was checked first. In this context, the values obtained are presented in Table 4.

Decisions were made by evaluating the data in the table. According to George and Mallery (2021) and Uysal and Kılıç (2022), the reference intervals for skewness/ kurtosis should

Table 2: Fit Indices and Basic Range Values

Fit Indices	Results			Evaluation (Accept:A/Goog:G)		
	DESEB	OLRS	ALSS	DESEB	OLRS	ALSS
CMIN/DF	3.759	4.899	3.745	*A*	*A*	*A*
RMSEA	.067	.079	.067	*A*	*A*	*A*
GFI	.911	.900	.975	*G*	*G*	*G*
AGFI	.885	.863	.947	*A*	*A*	*G*
CFI	.939	.932	.983	*A*	*A*	*G*
RMR	.062	.048	.035	*A*	*G*	*G*
TLI	.929	.917	.972	*A*	*A*	*G*
DF	147	125	17			
CMIN	552.569	612.376	63.665			

Table 3: CA Values of the Data Collection Instruments

DESEB	CA	OLRS	CA	ALSS	CA
AD (9 Items)	.899	CIUSED (3 Items)	.831	AESD (4 Items)	.877
CKD (6 Items)	.875	SLD (5 Items)	.864	PSD (4 Items)	.832
ID (4 Items)	.892	LCD (3 Items)	.802	**ALSS (8 Items)**	.898
DESEB (19 Items)	**.937**	LMD (4 Items)	.858		
		OCSED (3 Items)	.832		
		OLRS (18 Items)	**.948**		

Table 4: Data on Checking the Normality of Distribution

Scales-Sub-Dimensions		Kolmogorov Smirnov			Shapiro Wilk						
	St.	Sd	p	St.	Sd	p		Skewness	Kurtosis	$\overline{\text{X}}$	S.S.
DESEB	AD	.069	621	.000	.982	621	.000		-.382	.194	3.19	.83
	CKD	.129		.000	.937		.000		-.902	.709	3.54	.89
	ID	.081		.000	.970		.000		-.015	-.786	2.78	1.05
	DESEB	.072		.000	.980		.000		-.467	.411	3.21	.78
OLRS	CIUSED	.123	621	.000	.966	621	.000		-.350	-.112	3.30	.95
	SLD	.113		.000	.962		.000		-.599	.678	3.43	.83
	LCD	.135		.000	.961		.000		-.389	.420	3.28	.88
	LMD	.151		.000	.938		.000		-.785	.645	3.60	.87
	OCSED	.140		.000	.924		.000		-.806	.801	3.60	.93
	OLRS	.085		.000	.959		.000		-.754	.926	3.45	.77
ALSS	AAED	.085	621	.000	.971	621	.000		-.195	-.436	3.17	1.02
	PSD	.115		.000	.948		.000		-.714	.709	3.53	.88
	ALSS	.071		.000	.978		.000		-.385	.229	3.35	.87

be in the range of +1/-1. In this study, it was decided that the distribution meets the assumptions of a normal distribution based on the skewness and kurtosis values in the range of +1/-1, scatter plots, and the mean and standard deviation data. Therefore, the Pearson correlation coefficient (r), one of the parametric tests, and structural equation modeling were used to determine the relationship/effect between the variables. The fit index values obtained in the SEM and CFA were based on the values specified by Ahmad et al. (2016), Baumgartner and Homburg (1996), Browne and Cudeck (1993), Hooper et al. (2008), İlhan and Çetin (2014), Kline (2011), and Schermelleh-Engel and Moosbrugger (2003). The fit indices considered in this context are as follows: Chi-Square Test of Fit (CMIN/DF) reference value, RMSEA, GFI, AGFI, CFI-TLI, and RMR. The reference ranges for the fit indices are as follows: Good: CMIN/DF=0<χ2/sd≤3; RMSEA=0≤X≤.05; GFI=.90<X≤1; AGFI=.90<X≤1; CFI=.95<X≤1; RMR=0≤X≤.05; TLI=.95<X≤1 / Accept: CMIN/DF=3<χ2/sd≤5; RMSEA=.05≤X≤.08; GFI=.90<X≤1; AGFI=.80<X≤.90; CFI=.90<X≤.94; RMR=0.05≤X≤.10; TLI=.90<X≤.94 (Baumgartner & Homburg, 1996; Browne & Cudeck, 1993; Hooper et al. 2008; İlhan & Çetin, 2014; Kline, 2011; Schermelleh-Engel & Moosbrugger, 2003). Although there are clear limits on the fit index values, Schermelleh-Engel, Moosbruger and Müller (2003) stated that it is not easy to determine the limits on the fit index values and that approximate values can also be accepted. The results of the CFA and path analysis were evaluated in light of this approach. The analysis of the study was performed using statistical package programs (SPSS 22 and AMOS 20).

FINDINGS

To answer the first question of the study, "*What are the distance education self-efficacy beliefs, readiness for online learning, and academic life satisfaction levels of higher education students?*", the mean ($\overline{\text{X}}$) and standard deviations (SD) of the scale sub-dimensions and overall are presented in Table 5.

According to Table 5, while the overall OLRS ($\overline{\text{X}}$ =3.43; sd=.83) and the SLD dimension (($\overline{\text{X}}$ =3.54; sd=.89) were high, the remaining four dimensions of the OLRS - CIUSED ($\overline{\text{X}}$ =3.19; sd=.83), LCD ($\overline{\text{X}}$ =2.78; sd=1.05), LMD ($\overline{\text{X}}$ =3.21; sd=.78), and OCSED ($\overline{\text{X}}$ =3.30; sd=.95) – were moderate. This finding shows that students evaluate their own level of readiness for online learning at a high level. The overall DESEB ($\overline{\text{X}}$ =3.45; sd=.77) and two dimensions – CKD ($\overline{\text{X}}$ =3.60; sd=.87) and ID ($\overline{\text{X}}$ =3.60; sd=.93) – were high, while the AD ($\overline{\text{X}}$ =3.28; sd=.88) dimension was moderate. This result reveals that the distance education self-efficacy beliefs of the students are evaluated as high level by themselves. Additionally, overall ALSS ($\overline{\text{X}}$ =3.35; sd=.87) and the AAED dimension ($\overline{\text{X}}$ =3.17; ss=1.02) were moderate, while the PSD dimension ($\overline{\text{X}}$ =3.53; sd=.88) was high. This indicates that students' academic life satisfaction with the online learning process is moderate.

In order to answer the second question of the study, "*Is there a significant relationship between distance learning self-efficacy beliefs, readiness for online learning, and academic life satisfaction of higher education students?*" the Pearson correlation coefficient "r" between the variables was calculated, and the results are presented in Table 6.

Table 5: Mean and Standard Deviations for DESEB, OLRS, and ALSS

	SUB-DIMEwNSIONS	n	$\overline{\text{X}}$	S.S.	Significance
OLRS	CIUSED (3 Items)	621	3.19	.83	Moderate
	SLD (5 Items)		3.54	.89	High
	LCD (3 Items)		2.78	1.05	Moderate
	LMD (4 Items)		3.21	.78	Moderate
	OCSED (3 Items)		3.30	.95	Moderate
	OVERALL		3.43	.83	High
DESEB	AD (9 Items)	621	3.28	.88	Moderate
	CKD (6 Items)		3.60	.87	High
	ID (4 Items)		3.60	.93	High
	OVERALL		3.45	.77	High
ALSS	AAED (4 Items)	621	3.17	1.02	Moderate
	PSD (4 Items)		3.53	.88	High
	OVERALL		3.35	.87	Moderate

Table 6: The Relationship Between DESEB, OLRS and ALSS

	Scales	DESEB	OLRS	ALSS
DESEB	r	1		
	p	-		
OLRS	r	.808*	1	
	p	.000	-	
ALSS	r	.581*	.583*	1
	p	.000	.000	-

Note. *p<.01

Table 6 shows that there is a high/positive/significant relationship between students' distance learning self-efficacy beliefs and their readiness for online learning (r=.808, p<.01); a medium/positive/significant relationship between students' distance learning self-efficacy beliefs and their academic life satisfaction (r=. 581, p<.01); and a moderate/positive/significant relationship between students' readiness for online learning and their academic life satisfaction (r=.583, p<.01).

In order to answer the third question of the study, "*What is the level of influence of distance learning self-efficacy beliefs of higher education students on their readiness for online learning and academic life satisfaction?*" structural equation modeling (SEM) and path analysis were used, and the results are presented in Figure 4 and Table 7.

Table 7 shows that there are significant relationships between students' distance learning self-efficacy beliefs and their readiness for online learning (ß=.906, R^2=.82, p<.05)
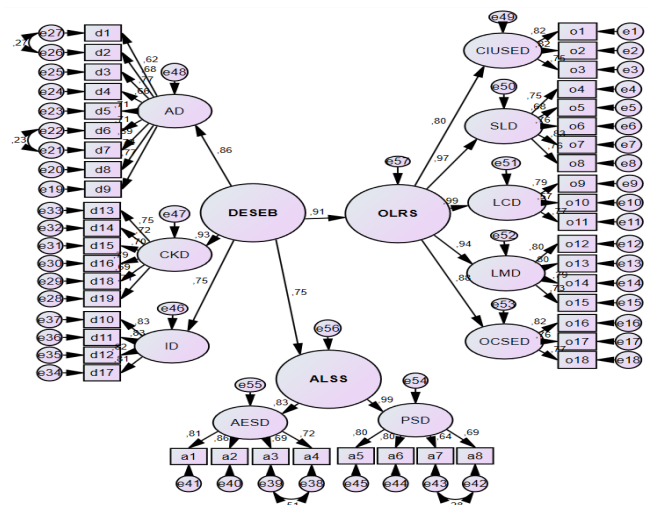
Fig. 4. Research model-1 Path Analysis-1
(DESEB→OLRS; DESEB→ALSS)

Table 7: Fit Indices of Research Model 1 Path Analysis-1

Index	Reference		Value	Result		
	Good	Accept				
CMIN/DF	$0<χ2/sd≤3$	$3<χ2/sd≤5$	2.99	**G**		
RMSEA	$0≤X≤.05$	$.05≤X≤.08$	.057	**A**		
GFI	$.90<X≤1$	$.80<X≤.90$	.82	**A**		
AGFI	$.90<X≤1$	$.80<X≤.90$	80	**A**		
CFI	$.95<X≤1$	$.90<X≤.94$	90	**A**		
RMR	$0≤X≤.05$	$0.05≤X≤.10$	.067	**A**		
TLI	$.95<X≤1$	$.90<X≤.94$	90	**A**		
DF			936			
CMIN			2796.454			

SEM Analysis Result						
Structural Relationship	Estimate(ß)	Standardized Estimate(ß)	S.E.	C.R.	R2	p
OLRS<----DESEB	**.951**	**.906**	**.037**	**25.588**	**.82**	*******
ALSS<----DESEB	**.763**	**.749**	**.046**	**16.535**	**.56**	*******

Table 8: Fit Indices of the Research Model 2 Path Analysis-2

Index	Reference		Value	Result	
	Good	Accept			
CMIN/DF	$0<χ^2/sd≤3$	$3<χ^2/sd≤5$	3.51	**A**	
RMSEA	$0≤X≤.05$	$.05≤X≤.08$	.064	**A**	
GFI	$.90<X≤1$	$.80<X≤.90$	.88	**A**	
AGFI	$.90<X≤1$	$.80<X≤.90$	86	**A**	
CFI	$.95<X≤1$	$.90<X≤.94$	93	**A**	
RMR	$0≤X≤.05$	$0.05≤X≤.10$	.055	**A**	
TLI	$.95<X≤1$	$.90<X≤.94$	92	**A**	
DF			294		
CMIN			1032.155		

SEM Analysis Results						
Structural Relationship	Estimate(ß)	Standardized Estimate(ß)	S.E.	C.R.	R^2	p
ALSS<---- OLRS	**.675**	**.691**	**.041**	**16.326**	**.48**	*******

and academic life satisfaction (ß=.749, R^2=.56, p<.05). This result indicates that distance learning self-efficacy belief levels of students explain 82% of their readiness for online learning and 56% of their academic life satisfaction. On the other hand, according to Figure 3, distance education self-efficacy beliefs had a 91% effect on readiness for online learning and a 75% effect on academic life satisfaction.

To answer the fourth question of the study, "*What is the effect of higher education students' readiness for online learning on their academic life satisfaction?*" a structural equation model (SEM) and path analysis were used, and the results are presented in Figure 5 and Table 8.

According to Table 8, it was determined that there is a significant relationship between students' readiness for online learning and their academic life satisfaction (ß=.691, R2=.48, p<.05). This finding indicates that students' readiness for online learning explains 48% of their academic life satisfaction. Moreover, it is seen in Figure 4 that the level of
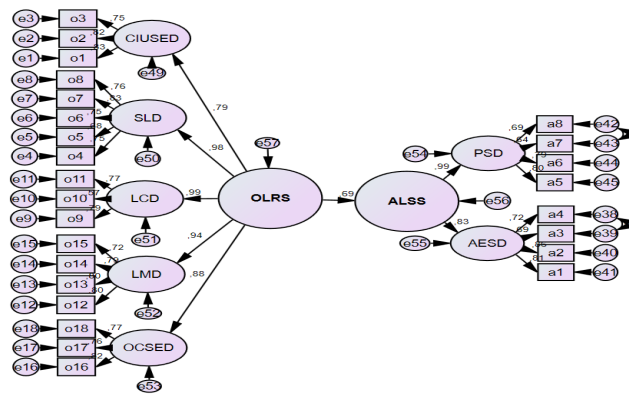
Fig. 5: Research Model 2 Path Analysis-2
(OLRS →ALSS)

readiness for online learning has a 69% effect on academic life satisfaction.

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

In this study aiming to determine the effect of distance education self-efficacy beliefs of students on their readiness for online learning and their academic life satisfaction and the effect of their readiness for online learning on their academic life satisfaction, data were collected from 621 higher education students. In the study, it was found that the distance education self-efficacy beliefs of the students and their readiness for online learning were high, while their academic life satisfaction was moderate. This result reveals that students evaluate themselves at a high level in terms of the competencies required in distance education processes, and it also shows that they are ready to learn online. However, the academic life satisfaction of the students during the distance education process is moderate. The striking point here is that although students' distance education self-efficacy and readiness for online learning are high, their academic life satisfaction is moderate. In other words, although the students describe themselves as sufficient in distance education and their readiness is high in this area, it was found that their academic life satisfaction is not as high. Another result revealed in the study is that there is a high level of positive relationship between students' distance education self-efficacy beliefs and their readiness for online learning. Additionally, it was determined that there is a moderately positive relationship between students' distance education self-efficacy beliefs, their readiness for online learning, and their academic life satisfaction. This indicates that as the students' distance education self-efficacy belief levels increase, their readiness for online learning and their academic life

satisfaction can also increase. On the other hand, it can be concluded that academic life satisfaction can increase with an increase in students' readiness for online learning. The path analyses performed to test the research model revealed that the distance education self-efficacy belief had a 91% effect on readiness for online learning and a 75% effect on academic life satisfaction. Furthermore, it was determined that the level of readiness for online learning has a 69% effect on academic life satisfaction. Accordingly, it can be concluded that the positive change in the distance education self-efficacy beliefs of the students can lead to positive changes in their readiness for online learning and their academic life satisfaction. In addition, it can be concluded that the positive change in students' readiness for online learning can lead to positive changes in their academic life satisfaction.

In order to better understand the position of the study in the current literature, it was deemed appropriate to present studies related to this study by summarizing the research results. In this context, the results obtained in the study are summarized as follows:

- Students' distance education self-efficacy beliefs and readiness for online learning are high, while their academic life satisfaction is moderate.
- There is a high-level, positive relationship between students' distance education self-efficacy beliefs and their readiness for online learning, and a moderate-level, positive relationship between students' distance education self-efficacy beliefs and their readiness for online learning and their academic life satisfaction.
- Distance education self-efficacy beliefs have a 91% effect on readiness for online learning and a 75% effect on academic life satisfaction.
- The level of readiness for online learning has a 69% effect on academic life satisfaction.

Within the scope of the study results, there are different studies in related literature. Yıldız and Seferoğlu (2020) concluded in their study that students' distance education self-efficacy is high. While Deveci-Topal (2016) stated that students' academic life satisfaction is moderate, they also concluded that there is a significant positive relationship between students' readiness for online courses and their academic life satisfaction. Bircan and Zabun (2021) found a high level of relationship between internet use self-efficacy perceptions and readiness for online learning in the distance education process. Arslan (2022) stated that students'

computer self-efficacy perceptions positively affect their online learning readiness. Bubou and Job (2022) concluded that there is a strong/positive relationship between students' self-efficacy beliefs and their readiness for online learning. Jan (2015) revealed that academic self-efficacy beliefs affect the level of satisfaction with online learning. Amri and Alasmari (2021) found that students' high self-efficacy levels in online learning processes positively affect their academic achievement. Panergayo and Mansujeto (2021) concluded that there is a positive relationship between students' self-efficacy beliefs towards online learning and their adaptation to online learning environments. Deniz (2021) and Jeon (2016) revealed a positive relationship between self-efficacy beliefs and academic life satisfaction. Van-Zyl and Dhurup (2018) and Tian et al. (2022) found that there is a high level of correlation between university students' self-efficacy beliefs and their academic life satisfaction. Ramadhanu et al. (2019) and Yan-Li et al. (2022) concluded that a high level of readiness for online learning increases learner satisfaction. As can be seen, the results in the literature support the results obtained in this study. In conclusion, based on the comparison of the results of this study with other research results in related literature, it can be stated that the results of this study are supported by the results obtained in other studies.

Within the scope of the study results, recommendations are offered to contribute to education processes. Training, workshops, seminars, extracurricular activities, etc. related to distance education technologies (hardware, software, applications, etc.) can be planned to improve students' distance education self-efficacy beliefs and their readiness for online learning. Thus, students' academic life satisfaction can be increased. Blended learning models can be used to contribute to distance education processes. In this way, learning outcomes can be realized both at school and outside of school. This study is not without limitations. The existing limitations and the recommendations developed within the scope of these limitations are as follows: The sample of this study consists of 621 students studying at Kafkas University, located in the east of the Republic of Turkiye. Research related to the focus of this study can be conducted in different countries/regions and at different education levels (primary school, secondary school, and high school). This study was designed as a quantitative study. Therefore, it aimed to answer the research problems with a deductive approach. Existing problems can be explained in depth with an inductive approach through studies using qualitative or mixed designs.

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