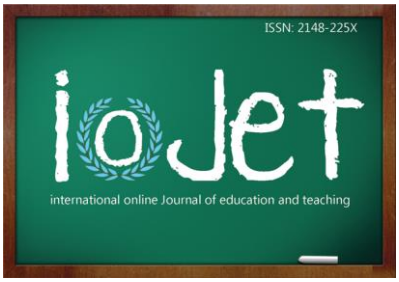

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EVALUATION OF THE TURKISH AND ENGLISH LANGUAGE PRE-SERVICE TEACHERS' WEB-BASED INSTRUCTION ATTITUDES IN PANDEMIC PERIOD: CYPRUS CASE

Research article

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EVALUATION OF THE TURKISH AND ENGLISH LANGUAGE PRE-SERVICE TEACHERS' WEB-BASED INSTRUCTION ATTITUDES IN PANDEMIC PERIOD: CYPRUS CASE

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Abstract

With the pandemic, face-to-face education has been replaced by online education almost all over the world. This new situation in education necessitated the consideration of variables that are different from variables addressed in previous studies. The aim of the study is to reveal the factors that affect the web-based teaching attitudes of Turkish and English language pre-service teachers enrolled in a language education program in Northern Cyprus and the extent of these effects. In this context, four new variables were addressed in this study. i) pre-service teachers' preference between face-to-face education and online education, ii) pre-service teachers' status of having received online education before the pandemic, iii) attitude levels of pre-service teachers from the same discipline (language education) but in different departments (English or Turkish), and iv) grade levels (students enrolled in the respective undergraduate program after the onset of the pandemic had only online education by the time they moved to second year in the respective program, whereas students of higher grade levels had face-to-face education before the pandemic and online education with the start of the pandemic). This study designed in the quantitative research approach and is based on the descriptive survey model. The research was carried on during the 2020-2021 academic year. With the using aim in the research, data was collected from the pre-service teachers who randomly selected from 12 universities that has Turkish and English language teaching departments. The data were collected using "Web Based Instruction Attitude Scale". In this research, it was found that the attitudes of the pre-service teachers, who had online education experience, towards web-based learning, were high and their resistance to web-based learning was low. It was revealed that pre-service teachers, who preferred face-to-face education, showed resistance to web-based learning.

Keywords: Web-based instruction attitudes, online education, pre-service teachers, pandemic period

1. Introduction

In the modern era, internet-based applications are extensively utilized by people of all age groups, ranging from young children to grown-ups, through computers and mobile gadgets. The widespread use of internet technologies and innovative teaching methods have increased the prevalence of web-based instruction (Muhametjanova & Akmatbekova, 2019). Web-based instruction, whether used alone or in conjunction with traditional learning methods, has become

prevalent worldwide, thanks to virtual tools like virtual course materials, virtual reality, different presentation software, synchronous or asynchronous e-conference systems, simulation, and more (Venkatesh & Sathyalakshmi, 2020). According to Simonson, Zvacek, and Smaldino (2019), web-based instruction presents a significant opportunity for people facing challenges with attending classes due to issues of time and location, or those who wish to enhance their knowledge in specific areas independently. Kaya (2006) suggests that web-based instruction is an appealing approach as it offers a crucial solution to address inequality of opportunity, providing lifelong education prospects to individuals as required, assisting in accomplishing both personal and social objectives, utilizing educational technologies, and fostering self-learning abilities. With the aid of advancing web-based platforms and technologies, distance education facilitates the provision of learning environments that are not restricted by time and place, allowing individuals to learn at their convenience (Gökçe Bilgiç & Tüzün, 2015). Distance education was a beneficial approach for learning before the Covid-19 pandemic due to its advantages in terms of saving time, reducing costs, and overcoming geographical limitations. Therefore, during the pandemic, distance learning environments became a mandatory educational option. However, this transition created challenges for learners to adapt to the new learning format and effectively utilize the digital learning systems.

The COVID-19 pandemic, which came upon the whole world in a matter of few months, deeply affected not just the global economy but also the education sector, giving rise to the temporary suspension of education activities that are held face-to-face (Lassoued, Alhendawi & Bashitialshaaer, 2020; Petzold, 2020; Rieley, 2020; Dhawan, 2020). The studies with a focus on online education activities during the COVID-19 pandemic process revealed a number of problems such as students' low levels of motivation towards distance education, problems encountered in teaching some of the subjects that would normally require face-to-face interaction, difficulties experienced in breaking the habit of face-to-face education in favor of web-based education, inability to teach applied courses on online platforms, inability to apply the assessment and evaluation methods effectively in a distance education setting, low internet speeds, inability to control the confidentiality and security of data, and students' lack of education in respect of the use of technological tools and equipment required for web-based learning (Atasoy, Özden & Kara, 2020; Chen, Kaczmarek & Ohyama, 2020; Dubey & Pandey, 2020; Ferraro et al., 2020; Lassoued, Alhendawi & Bashitialshaaer, 2020; Machynska & Dzikovska, 2020). These problems, which occur in the main axis of web-based education, may differ according to the level of education, age groups, previous experience of web-based education, ability to adapt to the transition to online education and many other variables.

The fact that the concept of web-based teaching has gained importance in the world resulted in this contemporary learning model to be addressed in numerous scientific studies from the perspectives of different stakeholders. In these studies, the attitude, acceptance and satisfaction levels of the stakeholders towards web-based teaching have been investigated. Variables addressed in the studies on attitudes towards web-based teaching are very diverse. To give a few examples to the variables addressed in the studies conducted in the last 10 years in particular; Chen and Tseng (2012) and Motaghian, Hassanzadeh and Moghadam (2013) investigated the levels of acceptance and adoption in respect of e-learning; Chen (2014) investigated commitment to e-learning; El-Masri and Tarhini (2017), Sattari, Abdekhoda and Gavgani (2017), and Salloum et al. (2019) investigated the performance expectancies, motivational levels and perceived ease in respect of web-based teaching; Akgün (2018) investigated web-based learning by gender, daily internet use, and self-efficacy; Hussain et al. (2018) investigated web-based learning by whether the system used for web-based teaching is enjoyed by the users and by the characteristics of the system; and Lee, Song and Hong (2019) investigated web-based teaching on the basis of student participation.

According to the researches, it is seen that there is a gap in the issues of how language teacher candidates behave towards distance education, how their past experiences affect distance education processes, and what kind of resistance and attitude they have developed against the transition from face-to-face education to distance education, especially after the Covid-19 pandemic is over. This situation reveals the need for new research on the attitudes, readiness, and resistance to change of language teacher candidates in web-based education. This sudden transformation from face-to-face education to distance education necessitated the consideration of variables that are different from the above-mentioned variables addressed in previous studies. In this context, in this study, four new variables were addressed: i) pre-service teachers' preference between face-to-face education and online education, ii) pre-service teachers' status of having received online education before the pandemic, iii) attitude levels of pre-service teachers from the same discipline (language education) but in different departments (English or Turkish), and iv) grade levels (students enrolled in the respective undergraduate program after the onset of the pandemic had only online education by the time they moved to second year in the respective program, whereas students of higher grade levels had face-to-face education before the pandemic and online education with the start of the pandemic). Accordingly, it is aimed with this study to contribute to the literature by evaluating whether the above-mentioned variables affect pre-service teachers' attitudes towards web-based teaching. For this purpose, following research questions were determined;

1. Do pre-service teachers' scores on the effectiveness of web-based teaching significantly differ according to the variables of “pre-service teachers' preference between face-to-face education and online education”?

2. Do pre-service teachers' scores on the effectiveness of web-based teaching significantly differ according to the variables of “pre-service teachers' status of having received online education before the pandemic”?

3. Do pre-service teachers' scores on the effectiveness of web-based teaching significantly differ according to the variables of “the department pre-service teachers have enrolled in”?

4. Do pre-service teachers' scores on the effectiveness of web-based teaching significantly differ according to the variables of “grade level of the pre-service teachers”?

5. Do pre-service teachers' scores on the resistance to web-based teaching significantly differ according to the variables of “pre-service teachers' preference between face-to-face education and online education”?

6. Do pre-service teachers' scores on the resistance to web-based teaching significantly differ according to the variables of “pre-service teachers' status of having received online education before the pandemic”?

7. Do pre-service teachers' scores on the resistance to web-based teaching significantly differ according to the variables of “the department pre-service teachers have enrolled in”?

8. Do pre-service teachers' scores on the resistance to web-based teaching significantly differ according to the variables of “grade level of the pre-service teachers”?

1.1. Aim and Importance

The objective of this study is to reveal the factors that affect the web-based teaching attitudes of pre-service teachers enrolled in a language education program in Northern Cyprus and the extent of these effects. This research reveals the reasons and levels of teacher candidates' resistance and attitude to web-based teaching.

The research is important in terms of contributing to revealing how the resistance to web-based teaching can be managed effectively in order to increase the level of student achievement. It is also important in terms of guiding the researches that will facilitate the adaptation to new web-based technologies by determining the factors affecting the attitudes of language teacher candidates towards online learning. Overall, the research holds significance in understanding the dynamics of web-based education and improving the quality of language teacher education.

2. Method

2.1 The Research Model

This study designed in the quantitative research approach and is based on the descriptive survey model. Survey research is the type of research that aims to collect and analyze the necessary data to identify certain characteristics of a group and to reach a conclusion (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz & Demirel, 2016). In this study, pre-service teachers' opinions regarding web-based instruction attitudes in the context of efficiency of web-based instruction and resilience of web-based instruction sub-dimensions in online environments was investigated. The research's independent variables consist of online training experiences, pre-service teachers' educational choices, university department, and grade levels independent variables.

2.2. Study group

The total study universe consisted of the pre-service teachers who studying in the Turkish language teaching and English language teaching departments of state and private universities in Northern Cyprus. The research was carried on during the 2020-2021 academic year. With the using aim in the research, data was collected from the pre-service teachers who randomly selected from 12 universities that has Turkish and English language teaching departments.

The participant pre-service teachers were picked by way of simple random sampling method that every part in the universe has the same chance to attend the sample group (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2016). 396 participants were filled the online questionnaires, all participants were willing for the research. 23 participants were not included in the evaluation because they filled in the questionnaires incompletely. A total of 373 questionnaires were evaluated. The participants consist of Turkish language pre-service teachers and English language pre-service teachers. The sample involved 208 (%55.8) English language pre-service teachers and 165 (%44.2) Turkish language pre-service teachers. The participants who previously received online education on the web 100 (%26.9) pre-service teachers and other 273 (%73.1) pre-service teachers didn't receive online education. While 285 (%76.4) pre-service teachers preferred face-to-face education other 87 (%23.6) pre-service teachers preferred online education. The participants occurred from 1st grade level 112 (%30) pre-service teachers, 2nd grade 94 (%25.2) pre-service teachers, 3rd grade 97 (%26) pre-service teachers and 4th grade 70 (%18.8) pre-service teachers.

2.3. Data Collection

In the research, the quantitative method was used and the data were collected using "Web Based Instruction Attitude Scale".

Web Based Instruction Attitude Scale (WBIAS): The scale was enhanced by Erdoğan, Bayram and Deniz (2007) to evaluate the students' attitudes towards web-based instruction. The study group used to create the scale comprise 127 e-MBA master students. WBIAS was

designed in five-point likert type and include two sub-dimensions that “Efficiency of web-based instruction (EWBI)” (17 items), “Resilience of web-based instruction web-based instruction (RWBI)” (9 items) in the scale totally 26 items there are. The scale items are answered as strongly I disagree (1), I don’t agree (2), undecided (3), Agree (4), Totally I agree (5). Internal consistency coefficient Cronbach alpha value calculated as .917 for whole scale. The explanatory factor analysis revealed that the total amount of variance explained by both factors is 47.308%. Confirmatory Factor Analysis (CFA) goodness of fit values were found out RMSEA = .036, SRMR = .047, NNFI = .82, GFI= .87, AGFI= .86, CFI = .91 and RFI = .79 the results obtained from CFA showed that the scale factor structure is within acceptable limits.

2.4. Data Analysis

Within the research 396 data were collected and checked up, 23 surveys were not included in the study because of the missing or incorrect data. The data obtained from 373 questionnaires were transferred to the computer and a data series was revealed. The SPSS 23 [statistical packages for Social Sciences for Windows] was utilized for the analysis of the research data set. Frequency and percentage values were calculated to find out the demographic characteristics of participants (department of education, grade level, web training experience, preferences for face to face or online education). In the rendering of the research data, the arithmetic averages as to the sub-dimensions of web-based instruction attitude of pre-service teachers, the ranges were discovered to be 1.00–1.79 “quite low”, 1.80–2.59 “low”, 2.60–3.39 “medium”, 3.40–4.19 “high”, while the range of 4.20–5.00 was assesed as “quite high”.

The initial analyzes were focused at evaluating the measurement properties of the scales. Preliminary analyzes were conducted to confirm that there was no violation of the assumption of normality and linearity. For this aim, before initiating the analysis of the research data, we controlled frequency values. In this context, nine missing values were detected inacceptable and discharged them from the analysis (Tabachnick & Fidell, 2013). After this process, normal distribution tests and variance homogeneity analyzes were implemented. Analyzes results for the distribution of normality of data were within acceptable limits. Skewness and kurtosis values were calculated to be less than ±1.5 and the histograms distributions were satisfactory. Tabachnick and Fidell (2013) and Pett (1997), said that the skewness and kurtosis values to be within ±1.5 limits for normal distribution. The analyzes reveal that the research variables showed a normal distribution. In this analysis process, we used independent t-test and one-way ANOVA analyzes.

2.5. Ethical Consent of the Research

In this study, all the rules set out in the scope of the "Directive on the Ethics of Scientific Research and Publication in Higher Education Institutions" were adhered to. Participants were informed of the topic and purpose of the study, and their written and verbal consent was obtained, indicating that the data would be used in scientific research.

Ethics committee consent information

Name of the committee that made the ethical evaluation: Final International University Ethics Commission

Date of ethical evaluation decision: 16.06.2020

As a result of the meeting, it was decided that " Your research project titled "Distance teacher education: Evaluation of pre-service teachers' attitudes towards online learning and online self-regulatory learning skills" was approved by the Ethics Committee"

3. Findings and Comments

According to pre-service teachers' opinions, we examined sub-dimensions of web-based instruction [Efficiency of web-based instruction (EWBI) and resilience of web-based instruction (RWBI)]. In this process an independent samples t-test was run on random sample to examine whether there are significant differences between pre-service teachers who previously received online training on the web and those who did not. Results can be seen in Table 1.

Table 1. *Online Education Experience Status t-test Results*

Variables	Receive n=100		Not receive n=273			
	$\bar{x}$	SD	$\bar{x}$	SD	t	*p*
EWBI	3.20	1.01	2.92	.94	2.467	.014
RWBI	3.07	1.04	3.37	1.00	-2.546	.011

As predicted in Table 1, an independent samples t-test results indicated that pre-service teachers who previously received online training on the web and those who did not receive online training shows a significant difference in EWBI sub-dimension [t(371)=2.467, p<.05]. When examined the mean differences in EWBI sub-dimension for pre-service teachers who had received online training previously ($\bar{x}$=3.20) have higher score than pre-service teachers who had not received online training before ($\bar{x}$=2.92). These results suggest that having previous online course experience makes a significant difference in the efficiency of web-based instruction. In RWBI sub-dimension pre-service teachers who previously received online training on the web and those who did not receive online training shows a significant difference [t(371)=-2.546, p<.05]. In terms of means RWBI sub-dimension for pre-service teachers who had not received online training previously ($\bar{x}$=3.37) have higher score than pre-service teachers who had received online training previously ($\bar{x}$=3.07). These results suggest that lack of online course experience makes a significant difference in resistance to web-based instruction.

In this analysis, to explore pre-service teachers' education preferences for face to face or online and compare in sub-dimensions EWBI and RWBI of web-based instruction was aimed. For this purpose, independent samples t-test was performed to analyze whether there are significant differences between pre-service teachers preferences for face to face or online training. Results can be seen in Table 2.

Table 2. *Pre-service Teachers' Preferences for Face to Face or Online Training t-test Results*

Variables	Face to face n=286		Online n=87			
	$\bar{x}$	SD	$\bar{x}$	SD	t	*p*
EWBI	2.68	.78	4.04	.76	-14.25	.001
RWBI	3.62	.84	2.20	.76	13.95	.001

When examined the Table 2, the t-test results between pre-service teachers who prefer face to face training and those who prefer online training indicated a significant differences in EWBI sub-dimension [t(371)=-14.25, p<.05]. When considering the mean differences, pre-service teachers' opinions' score who prefer online training ($\bar{x}$=4.04) is higher than pre-service teachers' score who prefer face to face training ($\bar{x}$=2.68). These results reveal that pre-service teachers who prefer online training make a significant difference compare to pre-service teachers who

prefer face to face training in the efficiency of web-based instruction. In RWBI sub-dimension pre-service teachers who prefer face to face training and those who prefer online training indicated a significant difference [t(371)=13.95, p<.05]. Comparing means for RWBI sub-dimension, pre-service teachers' score who prefer face to face training ($\bar{x}$=3.62) is higher than pre-service teachers who prefer online training ($\bar{x}$=2.20). These results points out that pre-service teachers who prefer online training have less resilience towards web based instruction.

In this analysis, taking into account the independent variable of the department of education, we investigated sub-dimensions EWBI and RWBI of web-based instruction. To achieve the targeted findings, independent sample t-test was enforced to examine whether there are significant differences between pre-service teachers opinions according to the department/field of education. The results can be seen in Table 3.

Table 3. *Pre-service Teachers Opinions According to The Field of Education t-test Results*

Variables	Pre-service Turkish Teacher n=165		Pre-service English Teacher n=208			
	$\bar{x}$	SD	$\bar{x}$	SD	t	*p*
EWBI	3,11	,98	2,90	,94	2,083	,038
RWBI	3,11	1,00	3,44	1,01	-3,139	,002

As can be seen in Table 3, the t-test results between pre-service teachers' opinions whose education department is Turkish language pre-service teachers and other group English language pre-service teachers demonstrated a significance difference in EWBI sub-dimension [t(371)=2.083, p<.05]. When examined the mean differences toward EWBI sub-dimension, pre-service teachers who Turkish language pre-service teachers ($\bar{x}$=3.11) have a higher score than pre-service teachers who English language pre-service teachers ($\bar{x}$=2.90). These results showed that pre-service teachers who Turkish language pre-service teachers make a significant difference compare to pre-service teachers who English language pre-service teachers in the efficiency of web-based instruction. In RWBI sub-dimension pre-service teachers who Turkish language pre-service teachers and English language pre-service teachers' opinions indicated a significant difference [t(371)=-3.139, p<.05]. In RWBI sub-dimension comparing the mean scores of pre-service teachers' views, the English pre-service teachers' score ($\bar{x}$=3.44) is higher than the Turkish pre-service teachers' score ($\bar{x}$=3.11). These outcomes showed that pre-service teachers who English language pre-service teachers have more resilience towards web based instruction.

In this part, it is aimed to examine pre-service teachers' views on the EWBI and RWBI sub-dimensions of web-based instruction according to their grade levels. Firstly, it was checked that the assumptions were met by performing normality checks and Levene's test in order to perform a one-way ANOVA. The assumption of homogenity of variances was found meaningful using Levene's Test, [F(3.369) =.629, p>.05]. For this purpose, a one-way ANOVA test was applied to analyze whether there are significant differences between sub-dimensions and pre-service teachers' grade levels in Table 4.

Table 4. *ANOVA Results According to Grade Level for EWBI and RWBI Sub-dimensions*

Variables	1.Grade n=112		2.Grade n=94		3.Grade n=97		4.Grade n=70		F	*p*	Difference
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD			
EWBI	3.27	.952	2.71	.883	2.83	.996	3.17	.928	7.65	.001	**1**\2∧3, **4**\2
RWBI	2.94	.997	3.50	.959	3.53	1.064	3.24	.935	7.97	.001	**1**\2∧3

\ = difference, ∧=and

When Table 4 is examined, we found a statistically significant difference between groups for EWBI sub-dimension [F(3.369)=7.655, p<.05]. Post hoc analyses using the Tukey post hoc test revealed that in the first grade pre-service teachers favour for ($\bar{x}$=3.27) there were significant differences in the efficiency of web based instruction compared to the second grade ($\bar{x}$=2.71) and third grade ($\bar{x}$=2.83) pre-service teachers. Likewise, a significant differences in favor of fourth grade was found between second grade ($\bar{x}$=2.71) and fourth grade ($\bar{x}$=3.17) pre-service teachers. On the other hand, no significant difference was found between fourth grade and first and third grade.

ANOVA analysis was conducted for the RWBI sub-dimension of web based instruction. The assumption of homogenity of variances was found tenable using Levene's Test, [F(3.369) =.743, p>.05]. We found a statistically significant difference among three groups for RWBI sub-dimension [F(3.369)=7.973, p<.05]. Post hoc comparisons using the Tukey post hoc test indicated that the first grade pre-service teachers in favour for ($\bar{x}$=2.94) there was significant difference in the resilience of web based instruction compared to the second grade ($\bar{x}$=3.50) and third grade ($\bar{x}$=3.53) pre-service teachers. These findings could be interpreted as that the first grade pre-service teachers showed less resistance to web based instruction than second and third-grade pre-service teachers. However, there was no statistically significant difference between fourth grade pre-service teachers and others.

4. Discussion

In this research, we evaluated whether there are significant differences between students who previously received online training on the web-based instruction attitude of students and those who did not and who prefer face-to-face education and those who prefer online training. We also assessed whether there are significant differences between students whose education department is Turkish pre-service teachers and English pre-service teachers and their class.

From among the pre-service teachers who participated in the study, the attitudes of those, who received online education before, towards web-based teaching were found to be significantly higher than those who did not, and their resistance to web-based teaching were found to be significantly lower. This did not come as surprising since it is thought that pre-service teachers who had an experience of web-based learning took advantage of, and benefited from, online education. As a matter of fact, there is evidence that there is a positive and significant relationship between students' previous experience of online learning and their self-regulated learning skills in online environments (Chumbley, Haynes, Hainline, & Sorensen, 2018). The fact that pre-service teachers have personally experienced the advantages of online education over face-to-face education might have affected their attitudes towards web-based teaching positively. By the same token, pre-service teachers might have perceived online education as a less costly and more time-saving option.

In this study, the attitudes of the pre-service teachers, who prefer online education, towards web-based teaching were found to be significantly higher and their resistance to web-based teaching were found to be significantly lower, than those who preferred face-to-face education. This result can be attributed to the high motivational levels of pre-service teachers, who preferred online education, in respect of web-based teaching. As a reason, students who have a high level of motivation (or low level of anxiety) in respect of the use of technology might naturally have had a high level of attitude towards web-based teaching as well. Hence, the students, who already had the ability to use technology and high self-efficacy, might have preferred online education and subsequently had a high attitude towards web-based teaching. Moreover, their social presence in virtual learning environments (Yılmaz, 2017), their information and communications technology (ICT) readiness, and their desire to simultaneously carry out education and business life (Özyürek, Begde, Yavuz & Özkan, 2016)

might have positively affected their attitudes towards web-based teaching. The differences observed between the attitudes of pre-service teachers towards web-based teaching might also be related to their economic, social and cultural status (ESCS). It is highly likely that the inequalities caused by the low ESCS status of relatively disadvantaged pre-service teachers and the limitations in accessing information technology resources negatively affected their attitudes towards web-based teaching and their ICT skills. Indeed, Reime, Harris, Aksnes and Mikkelsen (2008) found that some students tend to prefer face-to-face education because they see themselves as disadvantaged, even though they have a positive perception towards web-based teaching. Furthermore, these relative limitations and inequalities might have caused them to put up resistance to web-based teaching.

On the other hand, it seems likely that the perceptions of the students that prefer face-to-face education, towards communication, interaction, operational distance (Moore & Kearsley 2011; Nwankwo, 2013) as well as their expectations of usability, functionality and interoperability would differ. In addition, pre-service teachers' technological competencies, their ICT literacy levels, the level of education/age during which they accessed ICT resources for the first time, their web-based learning experiences and the technical problems they experienced online are also considered to be effective in the differentation between the pre-service teachers' preference between face-to-face education and online education. Further, it may be useful to focus on the functionality of web-based interaction tools and how they are used rather than whether they exist in an online learning environment (Parker & Ingram, 2011). In this context, pre-service teachers' preferences in respect of online learning may vary depending on the ways, level and quality of their usage of web-based learning interaction tools, possible gaps in the communication and interaction levels, ICT barriers, their self-regulation skills, knowledge creation strategies, individual (learning) differences, their perceptions and experiences of online learning, and the extent to which communication and interaction occur in the teaching process.

Additionally, in this study, attitudes of language education pre-service teachers towards web-based teaching were evaluated based on the departments they were enrolled. As a result, it was found that the web-based learning attitudes of the pre-service teachers enrolled in English language teaching department were significantly lower and that their resistance to web-based learning was significantly higher than the pre-service teachers enrolled in the Turkish language teaching department. Based on this result, it has been concluded that pre-service teachers, whose mother tongue is Turkish, prefer face-to-face education while learning or teaching a foreign language. This result can also be interpreted as that pre-service teachers care more about the communication and interaction dimensions of foreign language teaching and thus that they prefer natural interaction and communication mechanisms in teaching methods and techniques. As a matter of fact, there are studies in the literature in which it was demonstrated that face-to-face education was more preferred than online education in foreign language education (Alhamami, 2018; Salcedo, 2010). On the other hand, these findings also give clues about the necessity of focusing on the quality of web-based foreign language teaching in the studies to be conducted, that is, in-depth and longitudinal studies on the use and applicability of Web 2.0 Tools in the online teaching process, the teaching methods and techniques used, and the online teaching experience and competencies of teachers.

Another finding of this study was that the pre-service teachers' attitudes towards, and resistance to, web-based teaching differed significantly according to the grade level they were in. First grade pre-service teachers' attitudes towards web-based teaching were found to be significantly higher and their resistance to web-based teaching was found to be significantly lower than those of the pre-service teachers in the 2nd and 3rd grades. This finding may be

attributed to the fact that 1st grade pre-service teachers enrolled in the university after the onset of the COVID-19 pandemic, thus that they received only online education and adopted online education as a teaching method as they had no experience other than online education. As a matter of fact, given that pre-service teachers in the 2nd and 3rd grades have been taught primarily using face-to-face teaching techniques before the onset of the pandemic, it may be that they compared online education with face-to-face education and decided in favor of face-to-face education. By the same token, pre-service teachers' resistance to online education may be related to their positive experiences in face-to-face education in previous years. On the other hand, no significant difference was found between the attitude levels of the 1st grade pre-service teachers and the pre-service teachers in the 4th grade. This result can be attributed to the high levels of motivation of the 4th graders in respect of online education, as they might think that they will graduate soon enough and will thus have to teach via web-based teaching during the pandemic period. Indeed, web-based learning attitudes of the 4th grade the pre-service teachers were found to be significantly higher than those of the the pre-service teachers in the 2nd grade. Chumbley et al. (2018) attributed their finding of senior students having higher attitudes towards web-based teaching to the wider online learning experiences of these students, assuming that students' online learning experiences increase with their grade levels. Another finding of the said study was the significant relationship between the grade level of students and their self-regulated learning skills in online environments.

5. Conclusion and Recommendations

In this research, it was found that the attitudes of the pre-service teachers, who had online education experience, towards web-based learning, were high, and their resistance to web-based learning was low. Based on this result, it has been concluded that it is important not to cease online education altogether but to continue to provide it in an understanding to support face-to-face education in the post-pandemic period. Therefore, it is very important to increase the number of studies on the effectiveness of a hybrid educational approach that comprises both face-to-face and online education, in the future.

Furthermore, it was revealed that pre-service teachers, who preferred face-to-face education, showed resistance to web-based learning. In parallel, it would be useful to conduct in-depth and detailed qualitative studies in order to understand the underlying factors that cause the pre-service teachers to show resistance to web-based learning. Similarly, it would be also beneficial to conduct studies, in which the effectiveness of face-to-face education and online education are compared in respect of foreign language education. In such a study, whether the attitudes of first-year pre-service teachers, who were found to have high attitudes towards online education in this study, will change after they started to receive face-to-face education in the post-pandemic period, should be investigated as well.

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