

# The Investigation of Pre-service English Teachers' Information Searching and Commitment Strategies on the Web

Cihat Atar [1], Hakkı Bağcı [2]

<http://dx.doi.org/10.17220/mojet.2020.01.006>

[1] cihatatar@sakarya.edu.tr  
Educational Faculty, Sakarya  
University

[2] hbagci@sakarya.edu.tr  
Vocational School of Adapazarı,  
Sakarya University

## ABSTRACT

This study aims to designate pre-service English teachers' information searching and commitment strategies on the web. In accordance with the 21st century skills, searching for information on the web has become a vital skill and it cannot simply be taken for granted. In the literature, there are no studies on Turkish pre-service English teachers' strategies regarding searching information on the web and the commitment strategies they use. Accordingly, quantitative data in the form of a scale are collected from 131 pre-service teachers and a semi-structured interview is used to collect qualitative data from 16 (out of the 131) pre-service teachers studying English language teaching at a state university in Sakarya, Turkey. This study has a mixed method design and The Scale for Web Information Searching and Commitment Strategies which was developed by Wu and Tsai (2005) and adapted into Turkish by Geçer and İra (2014) has been used as a collection tool for the quantitative part and a semi-structured interview developed by the researchers has been undertaken to obtain qualitative data and improve the validity and reliability of the study. The findings suggest that pre-service English teachers in this context have a high level of competence (at I agree level) in four of the factors and they have a medium level competence in "technical properties and visuality" and "using a single source" factors. As for the effects of the variables, daily internet use and the sources used to acquire knowledge are observed to have no significant effect. However, gender (only on "checking formal and expert websites") and grade (on "checking formal and expert websites" and "the appropriateness of the content for the goals") are observed to have a significant effect. This study has implications for information searching and commitment strategies on the web, pre-service teachers and their use of technology for pedagogic purposes.

**Keywords:** *Information searching, commitment strategies, searching on the web, pre-service English teachers, 21st century skills*

## INTRODUCTION

Today, we live in a world which is in a state of quick changes. In fairly short timelines, the technology that is used in our lives changes drastically. For instance, only fifteen years ago, , overhead projectors, power point slides and looking for some information on google would be mentioned while talking about the pedagogic use of technology. However, in the recent decade the prospects of using technology for pedagogic purposes have increased exponentially and now, we have many applications, blogs (Özdemir & Aydın, 2017), tools and social media websites (Aydın, 2014; Bağcı & Atar, 2018; Balçıkanlı, 2015; Börekçi & Aydın, 2019; Çakır & Atmaca, 2015; Solmaz, 2019) that are created thanks to Web 2.0 tools (Cephe & Balçıkanlı, 2012). This increase is also observed in pedagogic areas as well, which offers beneficial results (Çetin Köroğlu & Çakır, 2017). However, these opportunities also create other problems such as the reliability and the quality of the information on the web. In this sense, it can be argued here that

information searching is a significant skill in the modern world. As prospective teachers, pre-service teachers will directly undertake the role of teaching and they may affect hundreds or even thousands of students. In this sense, web searching skill is indispensable for teachers of the 21st century. Accordingly, this study aims to study pre-service English teachers' information searching and commitment strategies on the web (ISCSW) to find out their level and unearth some potential implications to help educate pre-service teachers more efficiently in accordance with the requirements of our age. Pre-service teachers are the focus as they will be future teachers and affect hundreds of students.

To sum up, the goal of this study is to investigate pre-service English teachers' information searching and commitment strategies on the web and identify their views about this issue. The following research questions are formed accordingly.

1. What is pre-service English teachers' level in information searching and commitment strategies on the web?
2. Do the levels of the participants vary significantly with regard to gender, grade, daily internet use and using different sources?
3. What are pre-service English teachers' views on information searching strategies on the web?

### Literature Review

ISCSW is a very recent topic especially in the Turkish context. When the literature on the adapted scale (Geçer & İra, 2014) used in this study is checked, four studies are found. None of these studies focuses on pre-service English teachers exclusively and all of them utilize a quantitative approach. Only one of them (Geçer, 2014) has pre-service teachers as participants, but it does not provide any specific findings regarding that group. Accordingly, these four studies will be reviewed as they share a similar context.

Geçer (2014) studied information search and commitment strategies in faculty of education using a quantitative methodology. The participants are 431 pre-service teachers studying in the 1st and 4th grades. This study has pre-service English teachers as participants as well; however, they are not studied individually and the researcher groups the participants under social sciences and hard sciences. The most frequent strategy the participants use is "organizing the information". Students studying social sciences are found to have higher scores (mean: 3.86) for "checking different sources".

İra and Kolburan Geçer (2017) investigate the relationship between university students' web searching strategies and their epistemological beliefs. The findings demonstrate that university students that think that learning depends on effort use strategies of using different sources and organizing information while those who think that learning is dependent upon ability use strategies of technical and visual properties. Kolburan Geçer, İra, Yenal, Bozcan, Yalçınkaya and Dinçer (2017) study pre-service primary school and physical education teachers. This is a quantitative and correlational survey study. The strategy that gets the highest point is found as "appropriateness for the goal" and a significant difference is detected in "checking different sources" regarding gender.

Geçer and İra (2015) focus on the effects of demographic factors on web searching strategies. Using a correlational study, they check the effects of faculty, grade, gender, daily internet use and computer use quantitatively. Their results suggest that students use complex web searching and interpreting strategies. The participants suggest that they can synthesize the information that they gather from different websites. No significant difference is detected with regard to sub-factors. In the grade variable, it is found to have a significant effect on only "checking from formal and specialist websites" and "checking from different sources". Gender is observed to have a significant effect on "the appropriateness of the content for the purpose", "technical properties and visuality" and "using a single source" in favor of males. Frequency of daily internet use is observed to have no significant effects.

To sum up the literature review, the scale used in this study is still a virgin area and there are only a few studies on this topic. Moreover, the review suggests that all of the previous studies are quantitative in

nature and in this sense, the current study will contribute to the literature by utilizing a mixed method approach. The interview is expected to provide more details about what the participants think.

## METHODOLOGY

The design of the study is an explanatory sequential design (Creswell, 2012) as quantitative data are collected first and then qualitative data are collected. Therefore, this is a mixed method study which utilizes a scale for quantitative data collection and a semi-structured interview for qualitative data collection. The survey model is one of the research approaches that aims to describe a phenomenon as it exists in the past or present (Karasar, 2005). The aim is to describe a specific subject in its own context and reality. This study also utilizes correlational design to answer the second research question. Moreover, interviews allow researchers to gain insights into the views of the participants and in this sense, they provide qualitative and in-depth analysis, which increases the reliability and the validity of this study.

### The Participants

This study utilized convenience sampling and 131 pre-service teachers who studied English language teaching at a state university in Sakarya in the academic year of 2018-2019 participated in the study. Table 1 presents some information about the participants.

**Table 1: The Participants**

Variables		f	%
Gender	Male	53	40,5
	Female	78	59,5
Grade	1st grade	34	26,0
	2nd grade	43	32,8
	3rd grade	21	16,0
	4th grade	33	25,2
Daily Internet Use	0-3 hours	49	37,4
	3-5 hours	42	32,1
	More than 5 hours	40	30,5
Sources used to acquire knowledge	The internet	102	77,9
	Libraries	16	12,2
	Experts	13	9,9
Total		<b>131</b>	<b>100</b>

The table shows that 53 participants (50,3%) are males and 78 (59,5%) are females. The grade of the participants is distributed in a similar way in general. As for daily internet use, it is observed that around one-third of the participants spend 0-3 hours for surfing, one-thirds spend 3-5 hours and one-third of them spend more than five hours. Finally, most of the participants use the internet as the source of knowledge while a few others resort to libraries and experts as well.

### Data Collection Tools

The quantitative data were collected by The Scale for Web Information Searching and Commitment Strategies which was developed by Wu and Tsai (2005) and adapted into Turkish by Geçer and İra (2014). The scale has a 6-point Likert scale (1: I do not agree at all, 6: I definitely agree) and it consists of 23 items and 6 factors. These factors are: "checking different sources" with two items, "checking formal and expert websites" with four items, "the appropriateness of the content for the goal" with six items, "technical properties and visuality" with three items, "organizing information" with five items and "using a single source" with three items. The lowest point in this scale is 23 and the highest is 138. Cronbach Alpha internal reliability for the whole scale is .75. It is .47 for "checking different sources", .71 for "checking formal and expert websites", .73 for "the appropriateness of the content for the goal", .70 for "technical

properties and visuality”, .70 for “organizing information” and .58 for “using a single source”. The implementation of the scale on pre-service teachers in this study showed that the value of the Cronbach Alpha internal reliability is .77. Moreover, it is .53 for “checking different sources”, .77 for “checking formal and expert websites”, .75 for “the appropriateness of the content for the goal”, .60 for “technical properties and visuality”, .66 for “organizing information” and .66 for “using a single source”.

The qualitative data were collected through a semi-structured interview form that was prepared by considering the points in the scale above and also, the issues raised by the researchers as a result of the literature review, which were discussed by expert opinion. The participants were asked six questions:

1. Which search engines do you use?
2. What kind of information do you search on the web?
3. Do you do searches about education? If yes, what kind of issues do you search for?
4. Can you easily find the things you look for? Can you explain why you can or cannot do it?
5. Do you think that searching on the web is a skill? Why or why not?
6. Do you think that searching information on the web is a skill that should be possessed by teachers?

### Data Analysis

In the scale, the highest point for each scale is six while it is one for the lowest. SPSS 18.00 (Statistical Package for the Social Sciences) was used to analyze the data and 0.05 was set as the significance level. Descriptive statistics such as frequency, mean and percentages were also utilized. In addition, the Levene Test was undertaken to see whether the data has normal distribution in the comparison of the data according to gender, grade, daily internet use and the sources used to acquire knowledge. While studying the differences of a variable between two groups that have normal distribution, independent-samples t-test was used, while the Mann Whitney-U test was used in cases where there was not a normal distribution. While searching for the variables that have more than two sub-groups, one-way variance analysis was undertaken when there is normal distribution and the Kruskal Wallis H test was used when there is not a normal distribution.

The qualitative data were analyzed through Descriptive Analysis. In Descriptive Analysis, the data are interpreted according to the pre-defined themes or may be grouped and reported according to the research questions. Direct quotations from the respondents are frequently utilized while reporting the findings. The point is to interpret and present the data in an organized way (Yıldırım & Şimşek, 2008). The data were categorized according to the interview questions and sub-themes were assigned. While analyzing the data, some further points were also detected and these were added to the sub-themes.

## FINDINGS AND DISCUSSION

In this section the findings will be presented with regard to the responses to the scale and the interview questions. First, the results of the SPSS analysis on the scale will be presented. Then, the participants’ responses to the six questions used in the survey will be presented respectively. Some statistics regarding the most typical answers will be mentioned and some representative quotations from the data will be provided.

### A. Pre-service English Teachers’ Information Searching and Commitment Strategies

The results of analysis of pre-service English teachers’ information searching and commitment strategies are presented below.

**Table 2. Findings Regarding Pre-service English Teachers' Information Searching and Commitment Strategies**

Sub-dimensions	$\bar{X}$	sd
Checking Different Sources	4,33	1,00
Checking Formal and Expert Websites	4,68	,84
The Appropriateness of the Content for the Goal	4,71	,69
Technical Properties and Visuality	2,97	1,00
Organizing Information	4,67	,67
Using a Single Source	3,51	1,27

According to the results, the strategy that has the highest point is “the appropriateness of the content for the goal” ( $\bar{X} = 4,71$ ). It is followed by “checking formal and expert websites” ( $\bar{X} = 4,68$ ) and “organizing information” ( $\bar{X} = 4,67$ ). This means that the participants stated “I agree” for these dimensions ( $\bar{X} = 4,33$ ). For checking from different sources, they stated that “They agreed to some extent”. As for “using a single source” ( $\bar{X} = 3,51$ ) and “technical properties and visuality” ( $\bar{X} = 2,97$ ), they stated that “They disagreed slightly”. The strategy that has the highest point (“the appropriateness of the content for the goal”) is coherent with the study of Kolburan Geçer et al. (2017).

These findings suggest that pre-service English teachers in this study think that they are good at three of the dimensions (“the appropriateness of the content for the goal”, “organizing information” and “checking from different sources”). This is in line with the literature (Geçer, 2014) considering the mean scores. The analysis suggests that the participants can do goal-specific searches, organize information and check multiple sources. “Checking multiple sources” may also be argued to indicate that the participants' epistemic preferences are a relative one and that they do not consider all the information on the web as reliable. Therefore, they may be argued to have a critical epistemic stance on the information available on the web.

### The Investigation of Pre-service English Teachers' Information Searching and Commitment Strategies considering Gender

The results of the independent samples t-test that was undertaken to check whether gender has a significant effect on the participants' web information searching and commitment strategies are presented below.

**Table 3. Pre-service English Teachers' information searching and commitment strategies considering gender**

Sub-dimensions	Groups	n	$\bar{X}$	Sd	df	t	p
Checking Different Sources	Male	53	4,17	1,10	129	-1.503	.135
	Female	78	4,44	,92			
Checking Formal and Expert Websites	Male	53	4,46	1,01	129	-2.475	.015
	Female	78	4,83	,69			
The Appropriateness of the Content for the Goal	Male	53	4,59	,64	129	-1.630	.106
	Female	78	4,79	,71			
Technical Properties and Visuality	Male	53	2,89	,97	129	-.771	.442
	Female	78	3,03	1,02			
Organizing Information	Male	53	4,74	,58	129	.853	.395
	Female	78	4,63	,73			
Using a Single Source	Male	53	3,45	1,41	129	-1.699	.658
	Female	78	3,55	1,17			

According to the analysis, a significant difference was found only in “checking formal and expert websites” sub-dimension [ $t_{(129)} = -2.475$ ;  $p < .05$ ] in favor of females. The findings showed that females are

more likely to check formal and expert websites while doing an information search on the web in comparison to males. The results demonstrated that gender does not have a significant effect on any of the other sub-dimensions. This study is in contrast with the findings of Kolburan Geçer et al. (2017) who found that gender has a significant effect on “checking different sources”. However, it should be noted here that the participants of Kolburan Geçer et al. (2017) are pre-service primary school and physical education teachers. This may account for this difference, but still the effect of gender should be studied meticulously in the following studies to clarify its role in ISCSW. Another study that investigates the effect of gender on ISCSW is Geçer and İra (2015). They found that gender is observed to have a significant effect on “the appropriateness of the content for the purpose”, “technical properties and visuality” and “using a single source” in favor of males, which were not supported by the findings of this current study.

### The Investigation of Pre-service English Teachers’ Information Searching and Commitment Strategies Considering Their Grade

In the analysis the Kruskal Wallis test was undertaken to understand whether the participants’ information searching and commitment strategies on the web change depending on their grade. The results are presented below.

**Table 4. Pre-service English Teachers’ Information Searching and Commitment Strategies Considering Their Grade**

Sub-dimensions	Groups	n	Median	sd	$\chi^2$	p	Significance
Checking Different Sources	1st grade	34	73,54	3	2.103	.551	No
	2nd grade	43	61,84				
	3rd grade	21	62,52				
	4th grade	33	65,86				
Checking Formal and Expert Websites	1st grade	34	82,34	3	11.175	.011	1-2 1-4
	2nd grade	43	58,05				
	3rd grade	21	71,74				
	4th grade	33	55,88				
The Appropriateness of the Content for the Goal	1st grade	34	74,97	3	8.775	.032	1-2 2-3
	2nd grade	43	56,66				
	3rd grade	21	80,88				
	4th grade	33	59,45				
Technical Properties and Visuality	1st grade	34	68,82	3	6.591	.086	No
	2nd grade	43	62,42				
	3rd grade	21	82,81				
	4th grade	33	57,06				
Organizing Information	1st grade	34	74,15	3	3.219	.359	No
	2nd grade	43	58,70				
	3rd grade	21	66,43				
	4th grade	33	66,85				
Using a Single Source	1st grade	34	68,78	3	7.004	.072	No
	2nd grade	43	65,29				
	3rd grade	21	81,57				
	4th grade	33	54,15				

(1: 1<sup>st</sup> grade, 2: 2<sup>nd</sup> grade, 3: 3<sup>rd</sup> grade, 4: 4<sup>th</sup> grade)

According to the analysis, there is a significant relationship between grade and “checking formal and expert websites” [ $\chi^2(3) = 2.103, p < .05$ ]. In order to identify the direction of this relationship, the Mann Whitney U test was undertaken on paired combinations. The results showed that the median of 1<sup>st</sup> grade participants was higher compared to the 2<sup>nd</sup> and 4<sup>th</sup> graders. A significant difference was found for “the

appropriateness of the content for the goals” as well [ $\chi^2(3) = 8.775, p < .05$ ]. When the Mann Whitney U test was undertaken on paired combinations, the participants in the 2<sup>nd</sup> grade were found to have a significantly lower point compared to the 1<sup>st</sup> and 3<sup>rd</sup> graders. No significant difference was found for the other sub-dimensions. These results are partially coherent with the findings of Geçer and İra (2015). They found that grade had a significant effect on “checking from formal and specialist websites” and “checking from different sources”. Consequently, it may be argued here that grade seems to have an effect on “checking from formal and specialist websites” as this was repeatedly confirmed by two studies. The reason may be the training that the pre-service teachers receive. Throughout their curriculum, they attend courses on research skills and the training in these courses may have increased their awareness regarding formal and specialist websites. It may also be argued that through time and experience participants get acquainted with specialist websites in addition to search engines while searching for information on the web and use these websites to search much more efficiently by directly resorting to these specialized websites.

### The Investigation of Pre-service English Teachers’ Information Searching and Commitment Strategies considering Daily Internet Use

In the analysis a one-way variance analysis was undertaken to understand whether the participants’ information searching and commitment strategies on the web vary depending on the participants’ daily internet use. The results are presented below.

**Table 5. Pre-service English Teachers’ information searching and commitment strategies considering daily internet use**

Sub-dimensions	Source of Variation	S.S	sd	K.O	F	p	Significance
Checking Different Sources	Between Group	1,028	2	,514	,510	,601	No
	Within Group	128,858	128	1,007			
	Total	129,885	130				
Checking Formal and Expert Websites	Between Group	1,590	2	,795	1,119	,330	No
	Within Group	90,944	128	,711			
	Total	92,534	130				
The Appropriateness of the Content for the Goal	Between Group	,568	2	,284	,597	,552	No
	Within Group	60,923	128	,476			
	Total	61,491	130				
Technical Properties and Visuality	Between Group	,071	2	,036	,036	,965	No
	Within Group	128,733	128	1,006			
	Total	128,804	130				
Organizing Information	Between Group	,004	2	,002	,004	,996	No
	Within Group	59,063	128	,461			
	Total	59,067	130				
Using a Single Source	Between Group	,250	2	,125	,077	,926	No
	Within Group	208,494	128	1,629			
	Total	208,745	130				

According to the analysis, daily internet use does not have a significant effect on participants’ information searching and commitment strategies on the web. There are differences in the amount of time pre-service English teachers spend on the internet; however, there are no differences in their perception of the web for information searching. This finding is also in line with the literature (Geçer & İra, 2015) that suggests that daily internet use does not have a significant effect on information searching skills.

### The Investigation of Pre-service English Teachers’ Information Searching and Commitment Strategies considering the Sources Used for Acquiring Knowledge

In the analysis the Kruskal Wallis test was undertaken to understand whether the participants’

information searching and commitment strategies on the web vary depending on the sources participants use to acquire knowledge. The results are presented below.

**Table 6. Pre-service English Teachers' information searching and commitment strategies considering the sources used to acquire knowledge**

Sub-dimensions	Groups	n	Median	sd	$\chi^2$	p	Significance
Checking Different Sources	The Internet	102	67,91				
	Libraries	16	64,72	2	1.964	.375	No
	Experts	13	52,58				
Checking Formal and Expert Websites	The Internet	102	64,69				
	Libraries	16	81,41	2	3.489	.175	No
	Experts	13	57,31				
The Appropriateness of the Content for the Goal	The Internet	102	65,37				
	Libraries	16	78,00	2	2.514	.284	No
	Experts	13	56,19				
Technical Properties and Visuality	The Internet	102	66,20				
	Libraries	16	70,91	2	.797	.671	No
	Experts	13	58,42				
Organizing Information	The Internet	102	64,48				
	Libraries	16	74,09	2	.938	.626	No
	Experts	13	67,96				
Using a Single Source	The Internet	102	67,54				
	Libraries	16	56,00	2	1.289	.525	No
	Experts	13	66,23				

The findings demonstrated that the sources (the internet, libraries and experts) used to acquire knowledge do not have a significant effect on the participants' information searching and commitment strategies on the web. However, when we have a closer look, some observations are worth mentioning. For example, the median of the internet for "checking different resources" is higher compared to the other two. As this is not a significant difference, it is difficult to argue clearly, but it may be suggested that the internet is used as it allows the users to access different resources as (traditional) libraries and experts offer limited resources in this respect.

## B. The Analysis of the Interview Data

### B. 1. Which search engines do you use?

The analysis of the responses to this question demonstrated that except for one participant, all the participants used google as the primary search engine. Yandex was mentioned as a secondary search engine and very few students mentioned DuckDuckGo, Ecosia and Opera as well. The participants mentioned 3 reasons for their preference for google: they are used to it, it is easy to use it and it is efficient. As P1 stated: "Because, when I search for something on it, I can find it easily". Similarly, P7 suggested that it was a little bit about familiarity as he used it since early childhood. As for the reasons for the preference for Yandex from time to time, the participants stated that they used it when they could not find something on google or when they aimed to find something in English. Two people also mentioned DuckDuckGo and their main motivation for this preference stemmed from the fact that this engine provides anonymity and it does not store personal user data.

The analysis of the data in this question suggests that google is by far the most common search engine used by the participants. The reason is universality, ease and efficiency. Most of the participants suggested that they used google because they could find what they looked for and google was usually successful at providing relevant results. Similarly, in a study on pre-service teachers' media literacy skills, it



was found that the pre-service teachers mostly used google as a search engine and they had no idea about tracking issues (Erdem & Erişti, 2018).

### **B. 2. What kind of information do you search on the web?**

The content analysis of the responses suggested that most of the student used web to search for issues about education. Some other participants stated that they used it for liberal education primarily and a few others suggested that they used it to obtain daily useful information (e.g. recipes), read news and search about their interests. To exemplify the most common goal, P13 said: *"Nowadays, I use it to search about the issues in lessons."* As the participants were active students then, probably education had a big share in their searches on the web.

### **B. 3. Do you do searches about education? If yes, what kind of things do you search for?**

The analysis of the interview data demonstrated that most of the students used the web very frequently to do searches about education. Only two participants used it sometimes. As for the type of information they searched for, the most common one was articles (two-thirds of the participants) and they also frequently searched for language activities. Assignments, lesson plans and terminology were also searched by some of the participants. Approaches, vocabulary articles, journals, personal/psychological development and lexical items were mentioned by few students. So, the analysis suggests that most of the participants did searches about pedagogy and their education, and the most common types were articles and language activities. To exemplify, P 11 said: *"I search for articles when I have micro and macro teaching (I.e. She does teaching practice). I look for teaching topics, language activities and articles."*

### **B. 4. Can you easily find the things you look for? Can you explain why you can or cannot do it?**

The analysis regarding this question suggested that most of the participants could easily find what they looked for. There was no one who said that they found it difficult, but there were a few people who stated that they often or sometimes found what they looked for easily. Number one reason was the key words. To exemplify, P5 said: *"Yes, I can. If not, I keep changing the keywords. Changing again and again, I definitely find what I look for"*. They often acknowledged the importance of keywords and they suggested that key words really helped them find what they wished to find. They thought that search engines worked very well and provided whatever they searched for easily most of the time.

As for the problems that were faced, they had difficulty with the web pages that charge money the most and they suggested that that was one reason why they could not find what they aimed to find. It can be argued that this is in fact not about being able to find. Rather, it is about having access. The next frequent problems were that they could not find exactly what they wanted to find and specific issues were difficult to find. For instance, P15 stated: *"When the things I look for are too old or too specific, I sometimes have difficulty in finding them"*.

### **B. 5. Do you think that searching on the web is a skill? Why or why not?**

The analysis of the responses demonstrated that two-thirds of the participants did not consider searching on the web as a skill. They usually stated that searching on the web could be undertaken by almost anybody as it is easy to do it on search engines. P2 explained it as follows: *"Because, the things you write come up. It is not that complex."* However, most of those who said that it was not regarded as a skill also suggested that doing it systematically, especially regarding key words, made a difference. For example, P1 put said: *"I do not think it may be seen as a skill. Why? Because, the ones who use the internet can do searches, but of course, doing it in a correct way is the real issue."* As for those who think that it may be regarded as a skill (one-third of the group), they mainly argued that it was important to be specific and know how to find what you look for. This is an interesting finding in that although most of the participants did not find searching for information on the web as a skill, they suggested that systematic searching would yield better results, which is exactly what was stated by those who believed that searching information on the web is a skill. Hence, it may be argued here that searching information may not be seen as a complex issue by most of the participants; however, they acknowledge the fact that doing it in a systematic way

would probably make a difference.

The findings here suggest that most of the participants thought that searching on the web is not a complex skill and most people can do it without much effort. This has some implications about their epistemological beliefs. They tended to think that web searching is innate and this suggests that they believe that it can be done easily. In the literature, İra and Kolburan Geçer's (2017) study suggests that pre-service teachers who think that learning is dependent upon ability use strategies of technical and visual properties. However, in this study, as shown by the quantitative analysis, the participants disagreed slightly considering the "technical properties and visuality" skill. Nevertheless, it must be noted here that only two-thirds of the participants suggested that web searching is usually effortless and also, in this study we do not have the chance to compare and contrast the responses of the participants in the survey and the interview as the surveys were undertaken anonymously.

#### **B. 6. Do you think that searching on the web is a skill that should be possessed by teachers?**

All of the participants, except for only one who suggested that it was significant but not indispensable, agreed that teachers should have this skill. As for the justifications, the most common one was that it provided huge amount of data quickly and easily. After that, it provided resources and activities which was followed by providence of different perspectives. A few others suggested that we lived in a world that was covered by web, which made it a mandatory skill for teachers. A few others also suggested that teachers should have this skill to set an example for the students and teach it to them, and it was also essential to find reliable information on the web. One person also suggested that teachers have the potential to affect many people through searching on the web. To exemplify the responses, P10 said: *"For example, considering time I think that it is very important while doing a search. We can ensure that students save time."* Another participant, P12, underlined the importance of this skill by saying: *"They find resources and materials about lessons."*

Considering the 5<sup>th</sup> and 6<sup>th</sup> questions together, there is a striking difference in participants' beliefs about information searching as a skill. They did not see it as a skill in general as they found it as an easy task. However, when it comes to the teachers, almost all of the participants suggested that it is a skill that must be possessed by teachers. This findings suggests that the participants consider web information searching skills to be critical for teachers and it may be suggested that they believe that it will be useful as implied by the quotes above.

#### **CONCLUSION**

This study has set out to designate pre-service English teachers' information searching and commitment strategies on the web. The literature review showed that there is no study that uses the scale used in this study to designate pre-service English teachers' strategies. In this sense, this study has contributed to the literature by finding out pre-service English teachers' web searching and commitment strategies. The study has utilized a mixed-method design and in this sense, it has offered both a general picture of the participants' information searching on the web and also the detailed ideas of some of the participants.

The three research questions were answered and discussed considering the results of both the quantitative and qualitative data. The findings and discussion have shown that the participants have a high level of competence (at I agree level) in four of the factors and they have a medium level competence in "technical properties and visuality" and "using a single source factors". As for the effects of the variables, daily internet use and the sources used to acquire knowledge are observed to have no significant effect. However, gender has been observed to have a significant effect on only "checking formal and expert websites" factor and grade has been observed to have a significant effect on "checking formal and expert websites" and "the appropriateness of the content for the goals" factors.

It may be suggested here that pre-service English teachers in this study are competent in web information searching skills, that they are aware of the epistemic issues and that they use the web to

search for pedagogic purposes in various ways. However, the study suggests that they have some problems in dealing with “technical properties and visibility”. This shows that some interventions or program adjustments may be undertaken to improve this weakness. As for the limitations, this study is undertaken in one state university in Turkey and thus, it would be beneficial to replicate the study in other state and/or private universities in and out of Turkey to understand if the findings are generalizable to other contexts and pre-service teachers. As there are no studies in a similar context (except for Geçer, (2014) who has pre-service English teachers as part of her participants), a direct comparison and contrast to the literature is not possible and thus, further studies should be undertaken to have different studies in different contexts to compare the results, which will provide a clearer picture of the case for pre-service teachers, especially English teachers, in a broader context.

## REFERENCES

- Aydın, S. (2014). Foreign language learners' interactions with their teachers on Facebook, *System*, 42, 155-163.
- Bağcı, H., & Atar, C. (2018). Pre-service English teachers' acceptance and use of social networks for teaching purposes. *Journal of Theoretical Educational Science, UBEK-2018*, 189-203.
- Balçıklı, C. (2015). Prospective English language teachers' experiences in Facebook: Adoption, use and educational use in Turkish context. *International Journal of Education and Development using Information and Communication Technology*, 11(3), 82-99.
- Börekçi, R. & Aydın, S. (2019). Foreign language teachers' interactions with their students on Facebook, *Computer Assisted Language Learning*, 1-25. doi.org/10.1080/09588221.2018.1557691.
- Cephe, P. T. & Balçıklı, C. (2012). Web 2.0 tools in language teaching: what do student teachers think? *International Journal on New Trends in Education and Their Implications*, 3(1), 1-12.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson Education, Inc.
- Çakır, A., & Atmaca, Ç. (2015). Pre-service teacher perceptions about the use of Facebook in English language teaching. *Digital Culture & Education*, 7(2), 110-130.
- Çetin Köroğlu, Z. & Çakır, A. (2017). Use of Flipped Instruction in Language Classrooms; An Investigation About Student Teachers' Perceptions. *European Journal of English Language Teaching*, 3(1), 17-22.
- Erdem, C., & Erişti, B. (2018). Paving the Way for Media Literacy Instruction in Preservice Teacher Education: Prospective Teachers' Levels of Media Literacy Skills. *International Journal of Instruction*, 11(4), 795-810. <https://doi.org/10.12973/iji.2018.11450a>
- Geçer, A. (2014) Öğretmen Adaylarının Web Ortamında Bilgi Arama-Yorumlama Stratejilerinin Demografik Değişkenlere Göre İncelenmesi. *Eğitim Teknolojisi Kuram ve Uygulama*, 4(2), 1-20.
- Geçer, A. & İra, N. (2014). Adapting the Scale for Information Searching and Commitments Strategies on the Web into Turkish. *Buca Eğitim Fakültesi Dergisi*, 38, 134-147.
- Geçer, A. & İra, N. (2015). Üniversite Öğrencilerinin Web Ortamında Bilgi Arama-Yorumlama Stratejilerinin Demografik Değişkenlere Göre İncelenmesi. *Eğitim ve Bilim*, 40(179), 383-402.
- İra, N. & Kolburan Geçer A. (2017). Üniversite Öğrencilerinin Web Ortamında Bilgi Arama ve Yorumlama Stratejileri İle Epistemolojik İnançları Arasındaki İlişki, *E-Uluslararası Eğitim Araştırmaları Dergisi*, 8(2), 2017, 58-74.
- Karasar, N. (2005). *Bilimsel araştırma yöntemi*. Ankara: Nobel Yayın Dağıtım.

Kolburan Geçer, A., İra, N., Yenal, H., Bozcan, E. Yalçinkaya, M. & Dinçer A. T. (2017). The Determination of the Web-Information Search and Interpret Strategies of the Students at Class-Teaching and PE Teaching Departments. *International Journal of New Trends in Arts, Sports & Science Education*, 6,(3), 16-33.

Özdemir, E. & Aydın, S. (2017). Blogging effect on English as a foreign language writing motivation: Blogging and writing motivation. *International Journal of Computer-Assisted Language Learning and Teaching*, 7(2), 40-57.

Solmaz, O. (2019). Pre-service language teachers' use of social networking sites for language learning: A quantitative investigation. *Eurasian Journal of Applied Linguistics*, 5(3), 423-439. Doi: 10.32601/ejal.651394

Wu, Y. T. & Tsai, C. C. (2005). Information Commitments: Evaluative Standard and Information Searching Strategies in Web-Based Learning Environments. *Journal of Computer Assisted Learning*, 21, 374-385.

Yıldırım, A., & Şimşek, H. (2008). *Sosyal Bilimlerde Nitel Araştırma Yöntemleri* (7. edition), Ankara: Seçkin Yay.