



USE OF METACOGNITIVE ONLINE READING STRATEGIES BY STUDENT TEACHERS OF ENGLISH

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Abstract:

As the internet, technological gadgets, and digital tools became ubiquitous and taking place in all aspects of education, the nature and place of reading has changed as well. Most of the reading is now being done online and many publishing companies produce e-books and audio books along with the printed materials. Advantages and benefits of reading strategies have been discussed for so long and at the end, it was also investigated that employing metacognitive online reading strategies has similar advantages and benefits as well. The Online Survey of Reading Strategies (OSORS) was administered to 147 first year student teachers of English to explore their usage of metacognitive online reading strategies. Results revealed that student teachers mostly used problem solving reading strategies and support and global reading strategies were least used by the participants.

Keywords: metacognitive online reading strategies, student teachers of English, online reading, reading strategies

1. Introduction

Cognitive and metacognitive operations undoubtedly take place when we talk about the reading skill; thus, according to many studies, reading is a vital part of language and language learning process. Dreyer (1998) put forward that reading is the most needed skill for learning a foreign language. While the significance and value of the reading skill is clear and apparent, it is also obvious that in this age of Web 2.0 technologies and cutting-edge technological gadgets, place of reading texts (which is traditionally in books and in other printed materials) that are pedagogic and non-pedagogic will be different. With the advent of internet and technological gadgets such as laptops, computers, mobile phones, tablets and iPods, online reading has become popular and reading texts online is intensively used by many people all around the world and internet has become a favorable platform for reading (Robertson, 2006). This

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situation is more common in tertiary education level because of the fact that almost all of the academic texts can be found online and students at this level are required to access them, read them for academic purposes and do some research online for their assignments, term projects and other things. Levine, Ferenz, and Reves (2000) indicated that the most important task of university students is being able to read and understand academic texts successfully. Parker, Lenhart, and Moore (2011) have argued that most of the course books will be offered in a digital form in the coming future. Thus, it is expected that EFL / ESL learners are familiar with online reading and they are aware of the fact that reading printed texts will be not very common in the following decade.

As it was mentioned, online reading has become ubiquitous and learners are actively using it nowadays. However, as the benefits and advantages of reading and online reading cannot be underestimated, the act of reading online or reading a printed text becomes more effective and meaningful if learners are appropriately employing strategies while reading a text. Oxford (1990, p.8) defined these strategies as: “...*learning strategies are operations employed by the learner to aid the acquisition, storage, retrieval, and use of information*”. She made this definition more detailed in this way: “...*learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations*” (p.8). Anderson (2003) put forward that strategies are conscious and while learners employ strategies, they are actively involved in the process of selecting and using them. As it can be understood from these definitions, learner strategies are employed by learners themselves in order to make their own learning more meaningful and easier. Oxford (1990) divided learning strategies into two main groups: direct learning strategies and indirect learning strategies. Moreover, she created six sub-categories under the direct and indirect learning strategies. According to her, memory, cognitive, and compensation strategies are under direct learning strategies and social, affective, and metacognitive strategies are under indirect learning strategies. Direct learning strategies involve activities that focus on dealing with the target language itself in different situations and activities. Indirect learning strategies involve metacognitive strategies such as planning, evaluating, coordinating etc. It can be seen that metacognitive strategies are higher order executive skills and they are exploiting cognitive skills and strategies to manage one’s learning and acquisition process through planning, evaluating, and coordinating (Cohen, 2005; Oxford, 1990; Taki, 2016).

When it comes to the place of metacognitive strategies in reading, as Sheorey and Mokhtari (2001) put forward, it can be said that these strategies are deliberate and conscious. It means that if learners are not aware of the metacognitive strategies, they will not be able to apply them while they are reading something. Huang, Chern, & Lin (2009) and Sheorey and Mokhtari (2001) argued that metacognitive strategies in reading are of paramount importance for the development of reading skills and reading comprehension. Thus, it is necessary that learners are aware of metacognitive reading strategies because when they are of the strategies, they can choose appropriate strategies for specific contexts and this will allow them to construct the meaning from the reading text (Amer, Barwani, & Ibrahim, 2010).

Sheorey and Mokhtari (2001) categorized metacognitive reading strategies into three groups: Global strategies, Problem-solving strategies, and Support strategies. Global strategies are the ones for managing one's own reading process such as checking the text's length, checking if the text is written appropriately in terms of its objectives, checking if an appropriate language is used in the text in terms of its register, having a purpose to read the text etc. Problem-solving strategies are related to the steps that are taken when one is directly dealing with the text. For example, re-reading the text in order to comprehend it better, trying to guess unknown words from the context, rearranging one's reading pace, reading the text aloud or silent in order to make it more meaningful cognitively etc. Support strategies are related to the help and support that readers and learners get from outside such as using dictionary, translation, highlighting, taking notes on the margins of the page etc.

In online reading, these metacognitive strategies become more vital because of the nature of this reading type. Taki (2016) put forward that research in online reading is associated with new literacies. This theory is based on the argument that with the advent of technology, internet, digital tools, and technological gadgets; form and nature of literacies and learning also changes. Thus, it can be argued that just like other skills and other dimensions of language learning and teaching, online reading needs to be explored as well because of the fact that we are living at the peak of new literacies.

1.1 Research Questions

Significance of metacognitive reading strategies and online reading is explained above and at the same time, need for the research on online reading is clear. Following research questions are searched in this study:

- 1) What kind of metacognitive online reading strategies (Global, Problem-solving, Support) are employed by student teachers of English?
- 2) What are the most and least employed metacognitive online reading strategies by student teachers of English?

1.2 Review of Literature

Taki (2016) indicated that research on online reading strategies mainly focused on points: exploring and signifying reading strategies employed by learners in the context of reading online in English as a foreign or second language, comparison of the reading strategies employed online and in printed materials, and exploration of the impact of reading strategies employed in online reading on reading comprehension. Anderson (2003) conducted a study with 247 participants, 131 of whom are EFL learners in Costa Rica and 116 are ESL learners learning English at a language center in US. This study was one of the first studies investigating learners' employment of reading strategies when reading online. Anderson (2003) aimed to explore basically two things: the strategies that are employed by EFL and ESL learners when they read online and if there is any differences and similarities between EFL and ESL learners in terms of their choice in online reading strategies. He adapted Sheorey and Mokhtari (2001)'s the Survey of Reading Strategies (SORS) and he came up with Online Survey of Reading

Strategies (OSORS) for this study. This survey consists of 38 items that measure metacognitive reading strategies employed in an online reading. The items were divided into three categories: global reading strategies (18 items), problem solving strategies (11 items), and support strategies (9 items). He administered this survey to the participants and found that there is no meaningful difference between EFL and ESL learners in terms of employing online reading strategies. He indicated that the only meaningful difference in the employment of the online reading strategies by EFL and ESL learners is that EFL learners used problem solving strategies more than ESL learners. Other than this meaningful difference, participants' responses revealed that they employ variety of reading strategies when they read online.

Ahmadian and Pasand (2017) conducted a study with 63 sophomore Iranian EFL learners to investigate online reading strategy use and its impact on learners' self-efficacy in reading comprehension. They administered Anderson (2003)'s OSORS as well and results revealed similar results: problem-solving strategies are most frequently used and employed by learners and support strategies are the least used ones.

Marandi and Mokhtarnia (2008) compared the strategies that are employed by learners in two different environments: reading printed texts and reading online. They conducted the study with 22 Iranian EFL learners. Their study's findings contradict with the findings of recent studies on this subject. They found that learners employ more strategies while they read printed texts compared to reading in a web-based environment with hypertext reading materials. This result can be attributed to the time of the study and place of the study. It might be said that digital tools and internet were not as popular and widespread as they are now and this can be one of the important reasons why the participants employed more strategies while they are reading printed texts.

Ramli, Darus and Bakar (2011) tried to explore metacognitive online reading strategies employed by 157 college ESL learners. They administered OSORS to the participants and tried to explore most, least, and overall used metacognitive online reading strategies employed by adult ESL learners. It was found that learners mostly used global reading strategies.

Amer, Barwani, and Ibrahim (2010) conducted a study with 123 first year student teachers and 97 fourth year student teachers studying at an Omani state university. They compared the use of online reading strategies employed by first year and fourth year student teachers. Results revealed that there is statistically significant difference between two groups in terms of employing global strategies. They argued that this result is consistent with the other studies because of the fact that more advanced learners employ more global reading strategies compared to less advanced learners.

Chen (2015) investigated use of metacognitive online reading strategies among 94 Taiwanese undergraduate and graduate EFL learners. She administered the OSORS to the participants and found out that the participants used global strategies more such as using the context to make the meaning clear or exploiting graphs, tables, and figures successfully to comprehend the text etc. She argued that her study was in consistency with the previous studies that high level learners employ more global reading strategies

when they read online than low learners do. It can be said that Amer et al. (2010)'s study and this study revealed similar results.

Jusoh and Abdullah (2015) conducted a study with 102 college students studying at two different departments: Faculty of Languages and Communication and Faculty of Information Technology. Language proficiency levels of the students were divided into two in the study: 50 participants are high level proficiency learners and 52 of them low level proficiency learners. The OSORS was administered to the participants to investigate their usage of online reading strategies. The results revealed that regardless of the department, all of the participants employ online reading strategies. Moreover, it was also investigated that problem solving strategies are the mostly used ones and support strategies are the least used ones, which shows similarity with other studies.

1.3 Aim and Importance of the Study

The study aims to explore student teachers' use of online reading strategies when they read online. With the advent of the internet, technological gadgets, and digital tools, nature of reading has changed. Almost all publishing companies produce e-books and audio books along with the printed materials. These e-books and audio books can be bought and accessed online and they can be read or listened on smart phones, computers, laptops, electronic book readers, tablets, iPods etc. Other than e-books and audio books, it became the world's reality that news and all kind of information can be reached online easily and very comfortably and because of this reason, many people follow the news and stay up-to-date online. Printed newspapers, magazines, and even TV are gradually becoming old-fashioned and all kind of information can be reached with a click on the button. Therefore, it is significant to mention that internet and technology are more widely used by young people because they are, as Prensky (2001) described them, 'digital natives'. Exploring young people's online reading habits and their usage of reading strategies while they read online is of great significance since they go online, interact online, and read online dramatically more than older people. Previous studies have shown that employing metacognitive reading strategies while reading online or printed text increases reading comprehension and it causes the person to approach the text more critically. It was also suggested by the researchers that learners need to be aware of the reading strategies and they should be encouraged to employ them while reading online or while reading a printed material. Thus, it is argued that student teachers' awareness and usage of the online reading strategies are of paramount importance because if they are aware of the online reading strategies and they employ them while reading online, they might encourage their future students to employ online reading strategies in order to comprehend the text better and in order to interact with the text critically.

2. Methodology

2.1 Participants

The participants of the study are 147 first year student teachers of English studying at two large state universities in Turkey. 93 of the participants are female and 54 of the participants are male. Ages of the participants range between 18 and 22. Turkish is the native language of all the participants.

In Turkey, students take a high-stake university entrance exam to be able to register as a student in university departments. People who would like to be a student in foreign language departments (English Language Teaching, English Language and Literature, American Culture and Literature etc.) take an English exam that has 80 questions. This exam measures students' ability and knowledge in English grammar, English vocabulary, reading comprehension and reading skills, and translation. Student teachers studying at English Language Teaching (ELT) departments in Turkish universities study almost the same curriculum.

2.2 Data Collection Instrument

Online Survey of Reading Strategies (OSORS), which was developed by Anderson (2003), was used in this study. This survey is the adapted version of Survey of Reading Strategies (SORS), which was developed by Sheorey and Mokhtari (2001). Anderson (2003) indicated that SORS aimed to measure metacognitive strategy use in academic reading. The SORS has three sub-constructs that measure three categories of reading strategies: global reading strategies (13 items), problem-solving strategies (8 items), and support strategies (9 items). Anderson (2003) adapted this survey and added 'online' to each item along with the addition of eight new items (5 new items were added to global reading strategies and 3 new items were added to problem-solving strategies). Anderson (2003) reported the overall Cronbach's alpha of the OSORS as .92. Moreover, reliability of each category is as follows: Global Reading Strategies: .77, Problem Solving Strategies: .64, and Support Strategies: .69. According to these numbers, it is clear that the OSORS is a reliable tool for measuring the metacognitive online reading strategies employed by EFL and ESL learners.

2.3 Procedure

The OSORS was administered to the participants by the researcher. The instrument was actually administered to 158 student teachers of English; however, because of missing data on some of the surveys, the number was reduced to 147. Along with the survey, some demographic information and information related to the participants' online reading habits both in their L1 and L2 was also investigated to support the findings of this quantitative study. The collected data was analyzed with SPSS 21 statistical software and the results were discussed in line with development of the reading skill and teacher education.

3. Results and Discussion

The participants were asked few demographic questions and some other questions related to their online reading habits both in their L1 and English and the amount of time they spend online every day. The questions that were asked to the participants and the frequency of the responses can be seen in Table 1 below. The responses of the participants revealed that they read online in English more than they do it in their native language. This can be related to the fact that they are studying at ELT department and their courses, assignments, in-class interactions etc. are all in English and they do not need to read, at least important academic texts, things in their native language. The responses to the question on what type of texts the participants read online both in their L1 and English confirmed this situation to some extent that 47 people stated that they read academic texts and 29 stated that they read e-books in English. However, the participants mostly read news and magazines and sports news in their native language. Responses to the question on the social platforms that the participants use for online reading revealed expected results that majority of the participants use social media to read things online. As it was mentioned, these participants are digital natives and they are very good with internet, technological gadgets and social media. Another expected result came from the question on the participants' amount of time they spend online every day. This is very closely associated with their being digital natives. As it can be seen in the table, majority of the participants spend considerably long time online everyday and apparently they do not stay away from the internet and technological gadgets not even a single day. They mostly use their mobile phones to surf the internet through the data packages delivered by the carriers and they bring their mobile phones to classrooms and in this they are actually always online and internet, mobile applications, all kinds of digital tools are at their fingertips. Anshari et al. (2017) indicated that learners nowadays carry their mobile phones all the time and they bring their mobile phones to classrooms. They argued that the mobile phones in the classroom carried by the learners can be a learning aid because they are very convenient, light, useful, and they can allow learners and teachers to have access to numerous digital tools available and they might take place of the textbooks or other materials. Therefore, it can offer learners comprehensive learning experiences, multi sources and multitasks. However, they can be also interferences in the classroom such as distraction, dependency, lacking hands-on skills, and they can reduce the quality of face-to-face interactions in the classroom. It might be argued that teachers and professors need to be careful about the interferences of the mobile phones in the classroom and learners would be trained to use strategies effectively and at the same time have digital literacy.

Table 1: Online reading habits of the participants both in their L1 and English

Question 1	Yes	No				
Do you like reading online?	100	47				
Question 2	Never	Rarely	Sometimes	Almost everyday	Everyday	
How often do you read online in your native language?	14	62	17	24	30	
Question 3	Never	Rarely	Sometimes	Usually	Almost Everyday	Everyday
How often do you read online in English?	3	25	48	8	36	27
Question 4	News and magazines	Sports	Articles and essays	Scientific texts	Novels	
What type of texts do you read online in your native language?	112	20	1	1	8	
Question 5	Blogs	Forums	News	E-books	Academic texts	Others
What type of texts do you read online in English?	91	34	110	29	47	Comics, song lyrics, Instagram posts, short stories, magazines
Question 6	Websites of media outlets (e.g., CNN, BBC, VOA, Reuters, Associated Press etc.)	Social media (e.g., Facebook, Twitter, Instagram etc.)	Wikipedia	Blogs	Forums	Other (Please specify):
Which platforms do you use for online reading?	79	110	52	68	51	Mobile apps
Question 7	Less than one hour	1-2 hours	2-4 hours	4-6 hours	7-8 hours	
How many hours a day do you spend online?	17	34	65	26	5	

Research Question I: What kind of metacognitive online reading strategies (Global, Problem-solving, Support) are employed by student teachers of English?

Responses of the participants revealed that Problem Solving Strategies are more widely used. For example, responses showed that student teachers are very well aware of the difference between fact and opinion in online texts. This can be related to the big amount of reading texts and reading comprehension exercises that they have been exposed to since high school. It was mentioned that upon finishing high school, students in Turkey take the university entrance exam, which is a high-stake and norm-referenced test and almost two million people take this exam every year. All the subjects in this test (e.g. mathematics, science, social sciences, Turkish language, English etc.) are measured at a theoretical or structural level with multiple choice questions and there is no question related to application because of the nature of the exam. English test in this exam has the same features that questions measure only learners' ability and knowledge in structural dimension of English language, such as grammar, reading comprehension, translation, lexical knowledge etc. Because learners are getting prepared to this exam to be able to solve such questions, they are exposed to educational materials which are appropriate to the questions in the entrance exam. Another popular online reading strategy among the participants is that when the online text becomes difficult, they pay closer attention to what they are reading. This is also one of the Problem Solving strategies. The participants also widely used some other Problem Solving strategies intensively that when they read online, they guess the meaning of unknown words or phrases or when they read online, they decide what to read closely and what to ignore or they adjust their reading speed according to what they are reading online. One of the Global Reading strategies was also widely used by the participants that they think about whether the content of the online text fits their reading purposes or not. These responses and the type of strategies that the participants employ while they read online texts reveal that they use Problem Solving strategies more than others and this complies with the results of other studies (Amer et al. 2010; Anderson, 2003; Kuo & Yu, 2014; Omar, 2014).

Research Question II: What are the most and least employed metacognitive online reading strategies by student teachers of English?

Table 2: The most used ten metacognitive online reading strategies by the participants

Strategy	Item	Mean	Std. Deviation	Category
35	I can distinguish between fact and opinion in on-line texts	3.93	.966	PROB
16	When on-line text becomes difficult, I pay closer attention to what I am reading	3.89	.963	PROB
31	When I read on-line, I guess the meaning of unknown words or phrases.	3.95	.967	PROB
14	When reading on-line, I decide what to read closely and what to ignore	3.78	.923	GLOB
33	I read pages on the Internet for fun	3.76	1.141	GLOB
13	I adjust my reading speed according to what I am reading	3.74	1.020	PROB

on-line				
11	I try to get back on track when I lose concentration	3.70	1.067	PROB
28	When on-line text becomes difficult, I re-read it to increase my understanding	3.68	1.116	PROB
5	I think about what I know to help me understand what I read on-line	3.66	.967	GLOB
8	I think about whether the content of the on-line text fits my reading purpose	3.65	1.018	GLOB

As it can be seen in Table 2 above, the participants in this study mostly used Problem Solving Reading Strategies. Results of previous studies revealed similar results, in which Problem Solving strategies were more widely used by participants. As the name suggests, Problem Solving online reading strategies are employed to deal with the comprehension problems. Anderson (2003) had similar results and he argued that EFL learners employ more Problem Solving online reading strategies than ESL learners. The result of this study can be interpreted in the same way. Other studies (Amer et al. 2010; Huang et al. 2009) have revealed similar results, but they compared two groups of participants, participants in one of the groups have low-level proficiency and the other one high-level proficiency. They indicated that EFL learners with high-level proficiency tend to employ more Problem Solving online reading strategies than the ones with low-level proficiency. However, this interpretation cannot be made with this study, since the levels of the participants were supposed to be similar to each other because they entered the university with the same exam, they all study at the same department, and they are all first year student teachers.

Table 3: The least used ten metacognitive online reading strategies by the participants

Strategy	Item	Mean	Std. Deviation	Category
4	I take notes while reading on-line to help me understand what I read.	2.64	1.259	SUP
2	I participate in live chat with other learners of English	2.69	1.208	GLOB
3	I participate in live chat with native speakers of English	2.72	1.230	GLOB
12	I print out a hard copy of the on-line text then underline or circle information to help me remember it.	2.74	1.323	SUP
21	I paraphrase (restate ideas in my own words) to better understand what I read on line.	3.06	1.162	SUP
37	When reading on-line, I translate from English into my native language	3.08	1.113	SUP
17	I read pages on the Internet for academic purposes	3.15	1.120	GLOB
7	When on-line text becomes difficult, I read aloud to help me understand what I read	3.21	1.290	SUP
18	I use tables, figures, and pictures in the on-line text to increase my understanding	3.22	1.058	GLOB
23	I use typographical features like bold face and italics to identify key information	3.24	1.196	GLOB

It can be seen in Table 3 above that Support Strategies are the least used strategies by the participants and coming after the Global Reading Strategies. These results again show a lot of similarities with the previous studies because of the fact that most of the studies investigating learners' use of metacognitive online reading strategies are conducted with EFL learners and it was investigated in many of these studies that EFL learners tend to employ more problem solving online reading strategies and they employ less global online reading strategies and support strategies. It can be concluded that Global Strategies and Support Strategies are employed more by learners with high-level of proficiency or by learners who are native speakers of English.

For example, as it can be seen on Table 3, the bottom three online reading strategies are related to taking notes while reading online and participating in live chat with other learners and native speakers. These results show that student teachers of English participated in this study are not taking notes while reading online. Moreover, they do not participate in live chat with other learners and native speakers maybe because they do not have this opportunity, especially the opportunity of participating in live chat with native speakers. However, it is not easy to make this conclusion without interviewing these participants because the internet and social media are ubiquitous now and these student teachers are using these tools widely. Thus, they might get the opportunity of participating in online chat with native speakers of English through the internet and social media.

The least used strategies in this study also show that the participants are not willing to employ cognitively demanding strategies either they are not capable or they are not aware. For example, the 21st strategy, I paraphrase (restate ideas in my own words) to better understand what I read on line, is a support strategy and it is apparently cognitively demanding strategy.

An interesting result came out from this study is that the participants' responses show big similarity with the ones in Anderson (2003)'s study. Anderson (2003) listed top twelve reading strategies employed by the participants and bottom twelve reading strategies employed by the participants of his study. Eight of the top ten strategies in this study are the same in his top twelve reading strategies and five of bottom ten strategies in this study are the same ones in his bottom twelve reading strategies.

4. Discussion

This study is conducted with first year student teachers of English to investigate their use of metacognitive online reading strategies when they read online. Although research on online reading strategies is not new, number of studies searching this issue from different perspectives, in different contexts, and with participants with different demographic features is limited. Strategy use and strategy training have been discussed for more than two decades and they are still discussed and searched about. The consensus that the researchers have reached about learning strategies and strategy use is that when learners are effectively and appropriately employing strategies, their learning becomes more meaningful and they become self-directed, self-regulated,

independent, and autonomous learners. In addition, the researchers also have come to the conclusion that every learning strategy is useful and beneficial, yet one strategy might work out with one learner and might not work out with another. Learners' cognitive, affective and social capacities decide on the usefulness of particular learning strategies along with learners' interests and needs. It was also investigated by previous studies that employing strategies while reading online or printed text improves comprehension and makes the reading text more meaningful to the learner. Therefore, researchers have suggested that EFL and ESL learners should be provided with well-planned, well-organized, and pedagogic trainings for making them effective and independent users of metacognitive reading strategies. While the importance and value of metacognitive online reading strategies have been proved, it might be also beneficial to look at this issue on the side prospective teachers: student teachers of English. This study has intended to investigate and explore student teachers' not only use of these metacognitive online reading strategies, but also to explore if they are aware of these strategies. Therefore, first year student teachers of English were chosen to participate in this study, because they are freshman student teachers and their awareness of these strategies might be more meaningful. The ultimate aim and main function of ELT departments is bringing up enthusiastic, determined, knowledgeable, well-equipped, and at the same qualified English teachers. If student teachers are brought up in a way that teaches them to be informed about popular discussions in academic circles, they will be qualified teachers when they graduate from the departments and they will bring up their future students accordingly. This study has shown that student teachers are aware of metacognitive online reading strategies and they are widely using them. However, as with the results of previous studies, it was investigated that student teachers of English participated in this study are mostly employing Problem Solving strategies and they do not employ Global and Support strategies in the same way. Suggestion of this study could be that training student teachers to be more effective users of metacognitive online reading strategies (in a way that they can reap the benefits of type of strategies as well) would be beneficial because in this way they might train their future students in the same way. Reading is an important skill and training learners to employ reading strategies and online reading strategies might make them successful readers and in this way, and at the same time teachers will foster autonomy as well among their learners. As learners employ these online reading strategies on their own to get the most out of the reading text and being able to read it from different perspectives, they also display autonomous learner characteristics because autonomous learners are the ones who make decisions in learning, including setting objectives, defining contents and progressions, selecting methods and techniques, monitoring the procedure, and evaluating the outcome of learning. Training learners and student teachers to employ metacognitive online reading strategies successfully and effectively and at the same time making them aware of these strategies will promote autonomy. As it was mentioned, previous studies either investigated participants' use of metacognitive online reading strategies or compared two different groups of participants with each other to see which one employ more or compared different

groups of participants who study at different departments and tried to explore if there is a difference between participants' use of online reading strategies and the departments they study. Surprisingly, none of these studies talked about autonomy and the role of autonomy in the background when we talk about reading strategies and metacognitive online reading strategies.

It was investigated that the participants spend considerably long time online every day. Almost half of the participants spend 2-4 hours on the internet every day and 26 of them spend 4-6 hours on the internet. Since these student teachers are very familiar with internet and technology and they spend this much time on the internet, their intensive engagement in online reading activities and their wide use of metacognitive online reading strategies might make sense. These results should concern everyone in the field of education and some other social disciplines, including teachers, teacher trainers, researchers, academicians, professors, counselors, psychologists, sociologists and so on because these learners' intensive use of internet should be channelized into something beneficial and informative. It can be seen on the table below that almost all the participants use social media, but educators should make sure that this use of social media is channelized into something beneficial and informative for them.

All in all, findings of this study were interpreted in the light of previous studies and possible contributions it would make to the English language teacher education.

5. Conclusion

This study was conducted with 147 first year student teachers of English studying at two big state universities in Turkey. The study aimed to explore student teachers' use of metacognitive online reading strategies when they read online texts and materials. Results revealed that the participants of the study employ mostly Problem Solving Strategies and they least employ support and global strategies, similar to the results of previous studies. The results were interpreted and discussed in line with the results of previous studies and teacher education principles.

5.1 Limitations and Suggestions

This study is limited to the participants who are studying at the ELT departments of two state universities in Turkey. In order to gain more reliable results, the study could be conducted with more participants and from different universities. Moreover, in order to support the quantitative data, structured or semi-structured interviews could be administered with the participants to explore their use of metacognitive online reading strategies in deep.

There might be two suggestions for further studies: first, metacognitive online reading strategies and use of strategies in general is closely associated with the concept of autonomy and further studies should add the autonomy dimension as well. Secondly, further studies, which will be conducted with student teachers of English, should consider developing a framework for strategy training as well, so that student

teachers are aware of these strategies and they are capable of training their future students to employ them successfully.

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