

*Full Length Research Paper*

# The relationship between FL reading strategies and FL reading proficiency: A study on Turkish EFL learners

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Reading in FL possesses certain challenges for FL readers such as difficulty in inferring underlying messages in texts and dealing with unfamiliar cultural load. All these challenges may be associated with FL learners' reading proficiency and their use of FL reading strategies especially while reading academic materials. This study aims at identifying reading strategy use of students in a Turkish EFL context and exploring the relation between perceived awareness of FL reading strategies while reading academic materials and FL reading proficiency. For these purposes, 55 students participated in the study. Results of correlation and regression analyses along with interview data suggested that although there was no significant correlation between FL reading strategy and FL reading proficiency, low and high proficient learners differed in their employment of FL reading strategies. This study highlights the importance of awareness and employment of effective FL reading strategies in academic contexts.

**Key words:** FL reading strategies, language proficiency, strategy use in academic reading.

## INTRODUCTION

Researchers have long been aware that reading in any language is a complex process comprising coordination of attention, memory, perception and comprehension (Sellers, 2000; Aarnoutse and Schellings, 2003; Nassaji, 2003; Afflerbach et al., 2008; Tsai et al., 2010). In addition to these, reading foreign language (FL) is challenging due to lack of motivation FL, varying degrees of importance and expectations due to different cultures, unfamiliar cultural load of the target language texts, and reading proficiency in the target language (Crookes and Schmidt, 1991; Oxford, 1996; Mori, 2002; Mokhtari and Reichard, 2004). In order to handle these challenges

imposed on language learners, reading strategies can serve as an emergency aid and help learners overcome many difficulties such as inferring the underlying messages in texts, dealing with unknown terms and unfamiliar cultural load.

Reading strategies are the deliberate mental actions readers employ when they approach a text written in the target language and to make sense of it (Singhal, 2001; Pani, 2004; Yang, 2006; Bolanos, 2012). FL reading strategies differ from language learning strategies in the sense that they involve metacognitive control such as planning and monitoring one's own understanding, and

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conscious execution of certain actions to achieve a particular goal while reading in a foreign/second language (Auerbach and Paxton, 1997). Among these certain actions, we can count strategies such as identifying a purpose for reading, previewing, predicting, questioning, checking prediction or finding answers for questions, connecting the text to prior knowledge, summarizing, connecting one part of the text to another, and recognizing text structures (Janzen and Stoller, 1998).

One's engagement with metacognitive awareness and regulation of reading strategies can be closely related to reading proficiency and reading performance in the target language (Kleitzen, 1991; Singhal, 2001; Bolanos, 2012; Lin and Yu, 2013). While reading in the target language, FL learners use strategies to increase reading comprehension when they lack proficiency in reading (Mokhtari and Sheorey, 2002; Magogwe, 2013). Performance on a reading task or test may be an indicator of using effective and appropriate strategies (Phakiti, 2003; de Milliano et al., 2014) whereas learners who do well on general reading performance tests may fail to use effective reading strategies when they are reading academic materials (Mokhtari and Sheorey, 2002). Similarly, higher proficiency in a foreign language may not always be equal to effective strategy use and reading comprehension (Li and Munby, 1996). That is, learners who are required to read in FL and who are even successful in reading performance tests or regarded as proficient language users may still lack awareness of using effective reading strategies related to their academic studies. In this respect, Grabe (2009) highlights the importance of metalinguistic awareness for strategic readers and claims that what differentiates good readers from poor ones can be attributed to differences in the level of metalinguistic awareness.

Previous research has displayed that students' metacognitive awareness of their reading processes is related to their ability to read and succeed academically (Carrell, 1991; Singhal, 2001; Lau and Chan, 2003; Mokhtari and Reichard, 2004; Magogwe, 2013). Especially at the university level, students are required to read and analyze various academic texts such as journals, research articles, course books, reports and so on in the target language. In English as a foreign language (EFL) contexts, where the instruction language is English or where students are required to read academic materials written in English, they are expected to have high level of competence as part of their study requirement. Lau and Chan (2003) assert that awareness of metacognitive and cognitive strategies play a part in increasing efficiency of the reading process. In this respect, identifying reading strategies used by successful and unsuccessful learners while reading academic texts in relation to FL reading proficiency is highlighted as a research paradigm that requires attention (Singhal, 2001; Mokhtari and Sheorey, 2002; Mokhtari and Reichard, 2004; Magogwe, 2013). Hence, this paper aims to investigate whether there is a

relationship between the perceived use of reading strategies while reading academic or school related materials in FL and reading proficiency in the target language in Turkish EFL context.

### **FL reading strategy use and FL reading proficiency**

FL reading development is influenced by many factors and the role of sociocultural variables is assumed to affect the way FL readers deal with texts (Grabe, 2009). Sociocultural theory of reading in the target language proposes that culture in which learners live and variation in sociocultural factors contribute to FL reading improvement (Saman and Dehqar, 2013; Yang, 2013). FL learners' social interactions with the texts and the culture they are living in with respect to their first language may then have an effect on dealing with texts in the target language. In this respect, FL readers are considered to be active participants in the reading process rather than passive, and they go through many processes while dealing with texts. Throughout this active process, FL learners may be asked to critically review a text or compare conflicting texts in academic sense (Grabe, 2009). Academic reading requires in-depth comprehension. Challenges generally stem from the discrepancies between what FL learners know and what native speakers know about the target language and contents of academic texts (Li and Munby, 1996). In this challenging environment of FL academic reading, role of FL reading proficiency and FL reading strategy use become crucial since these factors may have an effect on students' engagement with academic texts.

Various studies have been conducted in different cultural contexts on FL reading strategy use especially when dealing with academic texts. Difference between native and non-native readers' reading strategy use is one venue for investigation. Non-native readers have been reported to use support mechanisms such as using a dictionary, taking notes or underlining textual information significantly more than native speakers (Sheorey and Mokhtari, 2001). In an academic reading environment, Mokhtari and Reichard (2004) assert that despite differences in socio-cultural environments, native and non-native readers may exhibit similar patterns of strategy awareness and report usage while reading academic materials in English. What is more, adults may have similar levels of metacognitive awareness regardless of English being first or second/foreign language.

In a rather recent study, Magogwe (2013) investigated a similar phenomenon in a Botswana context by focusing on identifying metacognitive awareness of reading strategies of university students from different academic proficiencies. Results have yielded that while reading academic materials, university students reported high use of metacognitive FL reading strategies regardless of their proficiency levels. More proficient learners reported more

meaningful and purposeful reading and used high metacognitive strategies compared to less proficient ones. At this point, there appears a need for examining perceived use of reading strategies of learners in different cultural contexts since readers' own cultures may make a difference in their use of certain reading strategies. However, all studies mentioned so far based on learners' self-reports of proficiency levels; thus, they lack reliable proficiency tests to investigate the relationship between FL reading strategy use and FL reading proficiency.

Research in FL reading also focused on strategies used during the mastery of some sub-skills such as recognizing meaning of a word in isolation, deriving meaning from context, finding answers to comprehension questions, and forming judgment. In a study conducted by Ahmad and Asraf (2004), good and average FL readers in a Malaysian context were investigated in terms of their strategy use while answering comprehension questions based on reading texts. Findings of the study indicated that good EFL readers differ from average readers as they used more strategies while answering comprehension questions. Moreover, good FL readers were able to gear their answers specifically to need and context of the questions in the FL comprehension test. Although concepts of 'good' and 'average' readers used in the study were rather vague, this study shed light on how different readers approached texts by using different strategies.

In FL reading, the notion of good and poor readers is closely associated with FL reading proficiency. Ghavamnia et al. (2013) explored the differences between proficient and less proficient Iranian readers' strategy use while dealing with expository texts. Proficient readers in their study were reported to use metacognitive strategies effectively and approached reading as a meaning-making process. In contrast, less proficient readers isolated sentences from the text for basic understanding and focused on reading as a word-level decoding process. The researchers stressed the need for conducting more studies on FL reading strategy use in different contexts. Ghavamnia et al. (2013) concluded that understanding the relationship between strategy use and proficiency is crucial for improving reading comprehension especially of less proficient readers.

In Turkish EFL context, there is a scarcity of studies on the relationship between proficiency in FL reading and FL reading strategy use of learners in academic settings. In one study, Yiğiter et al. (2005) focused on determining reading strategies good language learners employ in pre, during, and post-reading stages of instruction in a Turkish EFL context. The results of the study indicated that poor and good readers differed in many aspects of their strategy use. In another study, Çubukçu (2008) focused on reading strategies of EFL teacher trainees at a state university in Turkey with the purpose of determining effectiveness of systematic direct instruction of multiple metacognitive strategies while dealing with academic tasks. Findings of the study have shown that systematic

explicit instruction about the concept of metacognition and reading strategies helped students better comprehend importance of reading strategies and apply them to different reading tasks. As a result, this study offered valuable implications for EFL learners and teachers by highlighting the importance of employing certain strategies while reading in the target language.

All studies reviewed here highlighted the importance of effective use of FL reading strategies in order to get meaning out of FL texts more effectively and achieve success in target language reading. Singhal (2001) underlines the need for conducting more studies to identify reading strategies used by successful and unsuccessful learners since research on FL reading strategies generally focus on teaching FL learners a variety of reading strategies rather than revealing what these students actually use. It is put forward that the first step in reading strategy instruction should be to identify what reading strategies learners employ (Mokhtari and Reichard, 2004). Especially while reading academic or school related materials, students may not be aware of their own reading strategies and thus may not benefit from strategy instruction without such awareness.

Review of literature also suggests that FL reading proficiency is an important variable that needs to be taken into consideration since it may affect reading strategy use of learners. What is more, studies in Turkish EFL context on FL reading strategies are scarce, and Çubukçu (2008) pinpoints the urgent need for more studies, which would enlighten FL reading strategy use of Turkish EFL learners. Sheorey and Mokhtari (2001) also suggest conducting studies in different contexts, which would aim at identifying FL reading strategies employed while reading academic materials in order to better understand how learners in various contexts use these strategies. To the author's best knowledge, there has been no prior study conducted in Turkish EFL context focusing both qualitatively and quantitatively on the relation between perceived awareness of FL reading strategies while reading academic materials and FL reading proficiency. Based on this gap, this study seeks to find the answers of the following research questions:

1. Which FL reading strategies do students in a Turkish EFL context use while reading academic materials?
2. Does proficiency in FL reading make a difference in the use of FL reading strategies while reading academic materials?
3. How do learners with high and low FL reading proficiency use FL reading strategies while reading academic materials?

## METHODOLOGY

### Participants

Participants of this study were 55 third year Turkish students (36

females, 19 males) enrolled in English Language Teaching (ELT) Department of a Turkish university. Their age ranged from 19 to 22. A non-probabilistic convenient sampling (Creswell, 2005) was preferred for the selection of participants as they were available at the time of the study and were typical EFL learners. Participants studied English language teaching and they had to deal with academic texts in English since the required language at the department was English. In terms of academic reading, participants were reading various materials for academic studies ranging from journal articles, course books to research papers. Participants had taken various academic courses were required to read many academic materials. Language of instruction was English and students were expected to be able to comprehend and interpret these materials effectively to achieve success in their academic studies. Thus, they had experience in academic reading in FL at the time of the study. All the students were required to read the same academic materials. They had prior knowledge about the concept of learning strategies since they came across the meaning and use of it in many academic courses they had taken so far. Students were coming from similar backgrounds with similar FL reading experiences. Students coming from other departments were excluded from the study because academic reading materials they were reading might be different from academic texts participants were reading. The study was based on the voluntary participation of the students. They were informed that they could withdraw from the study. From an ethical perspective, they signed consent forms that guaranteed the confidentiality of their participation. This study was concerned with the FL reading proficiencies of the participants; thus, their general language proficiency was not taken into account for the purposes of the study.

### Instruments

This study includes both quantitative and qualitative data collection instruments to provide more insight into FL reading strategies and its relation to FL reading proficiency. Nunan (1992) and Creswell (2005) suggest using various data collection procedures in order to shed more light on the research problem being investigated. Thus, data triangulation was aimed to propose more promising results about the relationship between FL reading strategy use and FL reading proficiency.

In the quantitative part, Survey of Reading Strategies (SORS) and the reading section of a TOEFL test were used. SORS is a Likert type scale developed by Mokhtari and Sheorey (2002). It is intended to measure adolescent or adult ESL/EFL students' metacognitive awareness and perceived use of reading strategies while reading academic materials. Main aim of the survey is to collect information about various strategies students use when they read school-related academic materials in English. The instrument has three subscales, namely *Global Strategies*, *Problem Solving Strategies* and *Support Strategies*. *Global Strategies* are intentional techniques such as having a purpose in mind and previewing the text as to its length. *Problem Solving Strategies* are the actions and procedures that readers use while working directly with the text such as adjusting one's speed of reading when the material becomes difficult or easy and guessing the meaning of unknown words. The final subscale *Support Strategies* are the ones intended to aid the reader in comprehending the text such as using dictionary and taking notes. While responding to survey items, participants were required to circle the number from 1 to 5 (ranging from never to always) that apply to them for statements like '*I try to get back on track when I lose concentration*' and '*when reading I decide what to read closely and what to ignore*'.

The instrument was originally found to have internal consistency (Cronbach Alpha 0.92), but in order to use the instrument in the Turkish EFL context; Cronbach Alpha reliability coefficient was computed (0.85) again. English version of the instrument was

administered to participants and when they had difficulty in understanding any of the items, researcher provided further explanations. The survey was given at appropriate times and participants were not required to respond to survey items in a limited time.

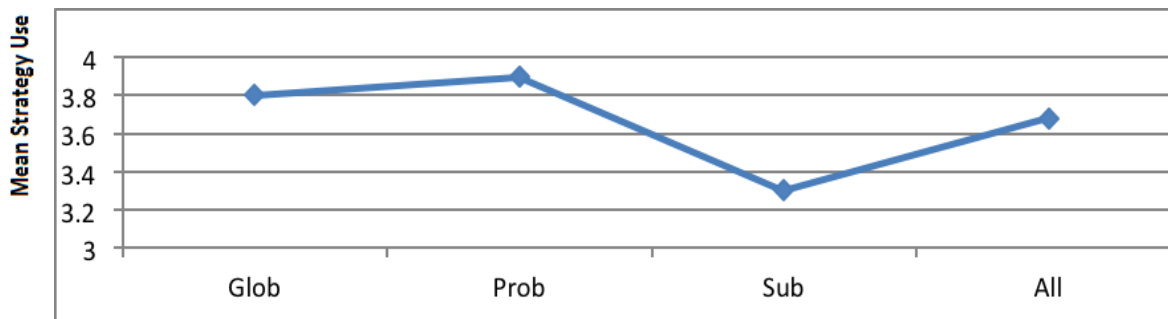
This study also aimed at investigating whether proficiency in FL reading makes a difference in the use of FL reading strategies while reading academic materials. Participants' FL reading proficiency in English was determined by administering reading section of a Test of English as a Foreign Language (TOEFL). TOEFL reading test was appropriate for the aims of this study since this test measured ability to understand university-level academic texts and passages. TOEFL reading section was based on understanding academic reading texts for the purposes of reading to find information, basic comprehension and reading to learn (The Official Guide to the TOEFL, 2009). These purposes were considered as three main purposes for academic reading. There were five passages and length of each passage was approximately 700 words followed by 12-14 questions per passage. Passages were from university-level textbooks and covered a variety of topics appropriate for academic reading. Hence, reading section of TOEFL was able to measure how well students could read academic material (The Official Guide to the TOEFL, 2009). 100 minutes were allocated for the test.

In the qualitative part, in order to find out how high and low proficient learners used FL reading strategies while reading academic materials, semi-structured interviews (see Appendix A) were carried out. Top five students who scored high and bottom five students who scored low on the reading section of TOEFL were selected for interviews. These interviews consisted of four open-ended questions and were carried out in native language of the participants in order to make them feel comfortable and express their ideas more intimately. Interviews with each participant lasted approximately about 15 min. Each interview was carried out at appropriate times both for the participants and the researcher. Confidentiality of participants' responses was also guaranteed.

### Data analysis procedures

Data gathered were analyzed quantitatively and qualitatively. In order to identify what FL reading strategies participants employed, SORS scores for each subscale were calculated by using scoring guidelines provided by Mokhtari and Sheorey (2002). Participants' reading section TOEFL scores were calculated by following directions provided by the official TOEFL center. The maximum score a learner could take from the test was 30. In order to find out whether FL reading proficiency made a difference in participants' FL reading strategy use, Pearson product moment correlation coefficient was computed between these two variables. It was also important to know extent of the relationship and whether FL reading strategy use was an important factor in predicting FL reading proficiency. For this purpose, further linear regression analysis was carried out.

Semi-structured interview with ten participants (top five students who scored high and bottom five students who scored low on the reading section of the TOEFL) in qualitative part were audiotaped and then transcribed. Interview data were coded through open coding by two separate raters based on the grounded theory for qualitative analysis (Corbin and Strauss, 2008; Boeije, 2010; Bryant, 2014). Aim of coding the interview data was to find out how high and low proficient readers in the study differed in their FL strategy use and whether their expressions supported quantitative findings. As suggested by Charmez (2006), rather than preconceived categories or codes, emerging codes were identified according to students' own expressions about their FL reading strategy use. Through open coding line-by-line, interview data were broken into parts and through close examination they were compared for similarities and differences. Extracts from student



**Figure 1.** Distribution of the mean strategy use according to FL reading strategy categories.

interviews were included in the study to reflect their perceptions on FL reading strategy use and its relation to FL reading proficiency. Two separate raters checked interview data and selected excerpts that reflected differences between high and low proficient FL readers in the study. Students were given number pseudonyms in the excerpts.

## RESULTS AND DISCUSSION

### Students' FL reading strategy use

In order to answer the first research question, students' responses to SORS were analyzed. According to SORS scoring guideline, mean strategy use of 3.50 and above indicate high FL reading strategy use, whereas mean use between 3.49 and 2.50 indicate medium FL reading strategy use, and mean strategy use of 2.49 and below indicate low FL reading strategy use. Figure 1 shows distribution of means according to three sub-categories and overall strategy use for all students regardless of their language proficiency.

### Strategy categories

As can be seen in Figure 1, overall FL reading strategy use is high (3.68) among all participants ( $n=55$ ) in the study. Mostly used FL reading strategy category is Problem-Solving reading strategies (3.9) and is followed by Global reading strategies (3.8) and Support reading strategies (3.3) respectively.

Table 1 displays distribution of FL reading strategies in detail with means and standard deviations according to reading strategy categories. Standard deviations are included to show how data are spread out in accordance with mean scores.

A closer examination of Table 1 shows that of 13 strategies related to Global reading strategies, 11 fell in the high usage category, and two strategies fell in the medium usage category. As for eight FL reading strategies related to Problem-Solving FL reading strategies, six of them were in high usage category

whereas two of them were in medium usage category. For the final sub-category of FL reading strategies, support reading strategies, only two of nine strategies were in high usage category, five of them fell into medium usage category, and two of them fell into low usage category. Table 2 shows FL reading strategy use of participants in order from most to least used. Five top most used strategies were highlighted.

As displayed in Table 2, students mostly used underlining and circling information in the text to support their reading. When text becomes difficult they paid closer attention to reading. Top five mostly used FL reading strategies also included re-reading the text to handle the difficulties, using context clues, and having a purpose in mind while reading academic materials. As for the least preferred FL reading strategy use, students did not choose paraphrasing for better understanding to support reading, and they did not prefer visualizing information as a strategy to solve problems while reading academic materials. Moreover, *Support* reading strategies such as asking oneself questions, translating from English into their first language and reading aloud when text becomes difficult were the least chosen strategies by the students.

### Relationship between FL reading strategy use and FL reading proficiency

In order to find whether FL reading proficiency made a difference in FL reading strategy use of participants, scores on the SORS and TOEFL were correlated with each other by using Pearson product moment correlation coefficient ( $r=0.243$ ). Although there is a slightly significant correlation between FL reading proficiency and FL reading strategy use, it is important to find out extent of the relationship between these variables. For this purpose, linear regression analysis was carried out. TOEFL reading scores of the participants was the dependent variable whereas FL reading strategy use was the independent variable.

Table 3 shows that FL reading strategy use of the

**Table 1.** Distribution of Reading Strategies according to SORS Categories.

Categories	Strategy	Mean	SD
GLOB 1	Having a purpose for reading	4.18	0.74
GLOB 2	Using prior knowledge	3.96	0.85
GLOB 3	Previewing the text before reading	3.80	1.14
GLOB 4	Checking how text content fits purpose	3.76	0.88
GLOB 5	Skimming to note text characteristics	3.81	1.24
GLOB 6	Determining what to read	4.07	0.74
GLOB 7	Using text features (e.g., tables, figures)	3.49	1.12
GLOB 8	Using context clues	4.18	0.74
GLOB 9	Using typographical aids (e.g., italics)	3.76	0.96
GLOB 10	Critically evaluating what is read	3.54	0.83
GLOB 11	Resolving conflicting information	3.89	0.85
GLOB 12	Predicting or guessing text meaning	3.94	1.02
GLOB 13	Confirming predictions	3.32	1.00
PROB 1	Reading slowly and carefully	4.16	0.91
PROB 2	Trying to stay focused on reading	4.00	0.72
PROB 3	Adjusting reading speed	4.03	0.71
PROB 4	Paying close attention to reading	4.29	0.73
PROB 5	Pausing and thinking about reading	3.30	0.85
PROB 6	Visualizing information read	3.21	1.11
PROB 7	Re-reading for better understanding	4.21	0.85
PROB 8	Guessing meaning of unknown words	4.00	0.74
SUP 1	Taking notes while reading	3.49	0.99
SUP 2	Reading aloud when text becomes difficult	2.39	1.13
SUP 3	Underlining or circling information in the text	4.60	0.85
SUP 4	Using reference materials (e.g., dictionary)	3.30	0.99
SUP 5	Paraphrasing for better understanding	3.21	1.00
SUP 6	Going back and forth in the text	3.96	0.71
SUP 7	Asking oneself questions	2.83	0.93
SUP 8	Translating from English into L1	2.49	1.11
SUP 9	Thinking about information both in English and L1	3.45	0.97

**Table 2.** Distribution of the most and the least used FL reading strategies.

Category	Strategy
<b>SUP 3</b>	<b>Underlining or circling information in the text</b>
<b>PROB 4</b>	<b>Paying close attention to reading</b>
<b>PROB 7</b>	<b>Re-reading for better understanding</b>
<b>GLOB 8</b>	<b>Using context clues</b>
<b>GLOB 1</b>	<b>Having a purposes for reading</b>
PROB 1	Reading slowly and carefully
GLOB 6	Determining what to read
PROB 3	Adjusting reading speed
PROB 2	Trying to stayed focused on reading
PROB 8	Guessing meaning of unknown words
SUP 6	Going back and forth in the text
GLOB 2	Using prior knowledge
GLOB 12	Predicting or guessing text meaning
GLOB 11	Resolving conflicting information
GLOB 5	Skimming to note text characteristics

**Table 2.** Cont'd

GLOB 3	Previewing the text before reading
GLOB 4	Checking how text content fits purpose
GLOB 9	Using typographical aids (e.g., italics)
GLOB 10	Critically evaluating what is read
GLOB 7	Using text features (e.g., tables, figures)
SUP 1	Taking notes while reading
SUP 9	Thinking about information both in English and L1
GLOB 13	Confirming predictions
PROB 5	Pausing and thinking about reading
SUP 4	Using reference materials (e.g., dictionary)
<b>SUP 5</b>	<b>Paraphrasing for better understanding</b>
<b>PROB 6</b>	<b>Visualizing information read</b>
<b>SUP 7</b>	<b>Asking oneself questions</b>
<b>SUP 8</b>	<b>Translating from English into L1</b>
<b>SUP 2</b>	<b>Reading aloud when text becomes difficult</b>

**Table 3.** Linear regression analysis between TOEFL reading scores and FL reading strategy use.

Predictor variable	N*	B-value	R	R <sup>2</sup>	F	P
FL reading strategy use	55	0.859	0.243	0.059	3.322	0.074

N\*: Number of the participants.

participants is positively correlated with TOEFL reading scores (B-value = 0.859). However, this correlation is not statistically significant ( $p = 0.074 > 0.05$ ).

That is, an increase in FL reading strategy scores does not indicate an increase in the TOEFL reading scores and vice versa. ANOVA results also confirm this finding ( $F = 3.32$ ; 1; 53;  $p = 0.074$ ). When variance between FL reading strategy use scores and TOEFL reading scores ( $R^2$ ) is taken into account, the FL reading strategy use can only explain 5.9% of the total variance. That is, TOEFL reading scores are not influenced by FL reading strategy use of the participants, and similarly FL reading strategy use scores are not influenced by TOEFL reading scores.

Scatter plot of regression analysis displayed that regression did not follow a linear pattern and data were rather scattered. Such scattered data show that FL reading strategy use does not have a predictive value on TOEFL reading scores. Although a slightly statistical significant correlation was found between TOEFL reading scores and FL reading strategy use scores of participants in the correlation analysis ( $r = 0.243$ ), this correlation is not significant to have some predictions related to variables.

As a result, FL reading strategy use is not a strong predictor of FL reading proficiency and similarly FL reading proficiency is not a strong predictor of FL reading strategy use.

### High and low proficient readers' use of FL reading strategies

The third research question aimed at investigating how students with high and low FL reading proficiency used FL reading strategies while reading academic materials. According to TOEFL reading scores, top five and bottom five students were selected for interview to support quantitative data and elicit further opinions. Table 4 shows TOEFL reading scores of high proficient and low proficient participants taken for interviews.

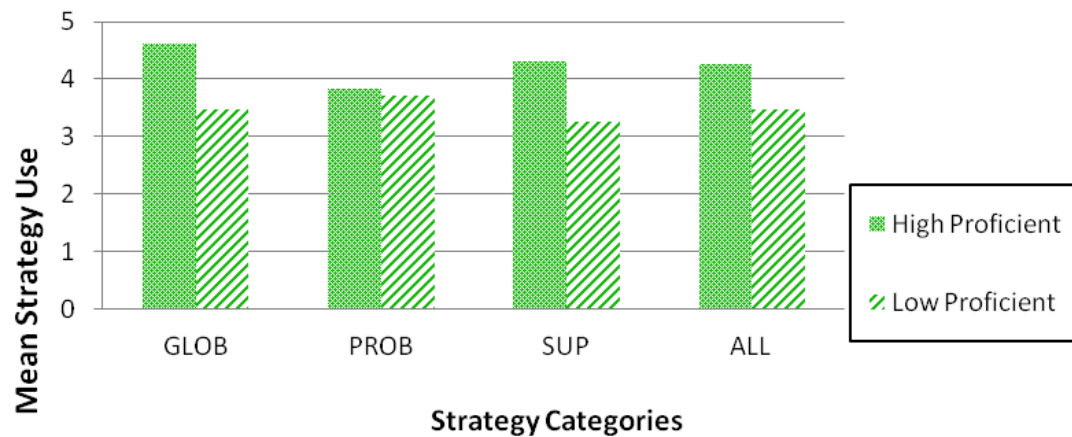
As shown in Table 4, top five students' TOEFL reading scores ranged from 22 to 28 whereas bottom five low students' TOEFL reading scores ranged from 8 to 12. It indicates that there is variety among high and low proficient students in terms of FL reading proficiency. As for their FL reading strategy use, Figure 2 shows distribution of means according to three sub-categories and overall strategy use for five high and five low proficient readers.

As displayed in Figure 2, five high proficient students in FL reading generally used more FL reading strategies (4.25) compared to five students with low FL reading proficiency (3.48). For students with high reading proficiency, mostly used FL reading strategy category is *Global* reading strategies (4.62) and is followed by *Support* reading strategies (4.30) and *Problem-Solving* reading strategies (3.84) respectively. On the contrary,



**Table 4.** TOEFL reading scores of the students participated in interviews.

Students with high reading proficiency	TOEFL scores	Students with high reading proficiency	TOEFL scores
Student 1	28	Student 6	12
Student 2	27	Student 7	12
Student 3	25	Student 8	9
Student 4	24	Student 9	8
Student 5	22	Student 10	8

**Figure 2.** Distribution of mean strategy use according to FL reading strategy categories for high and low proficient students.

five students with low FL reading proficiency used *Problem-Solving* strategies (3.72) more than *Global* reading strategies (3.48) and *Support* reading strategies (3.25) respectively. For these students, *Problem-Solving* strategy use was high (mean of 3.5 and higher) whereas *Global* reading and *Support* reading strategy use were medium (means between 2.5 and 3.49).

In order to shed more light into FL reading strategies, learners with high and low FL reading proficiency (n=10) were asked whether they faced with difficulties while reading academic materials in English such as course books, assignments, articles, and research reports. A total of 28 codes were identified through open coding about difficulties participants expressed while reading academic texts in English. 18 of these codes referred to the difficulties expressed by low proficient readers. Among these, unknown vocabulary, length of academic texts and lack of sufficient background knowledge about content were the mostly stated difficulties. The remaining 10 codes identified about challenges belonged to high proficient readers in interviews. Dealing with cultural content, metalanguage use, identifying referring expressions and identifying underlying meaning were the mostly stated ones. Both groups shared 12 of the codes expressing the same difficulties such as dealing with

complex linguistic structures, making connections among the parts of the text and making critical evaluation of texts.

Although both high proficient and low proficient readers expressed that they faced with certain difficulties while reading academic materials, they differed in how they handled difficulties. That is, their strategy use differed. 42 codes were identified regarding strategy use of both low and high proficient readers in the study. Only 10 of these codes belonged to low proficient ones since they mentioned about a limited use of FL reading strategies. Some of the strategies they used were trying to stay focused while reading, looking up the unknown words from the dictionary, and re-reading the text many times for better understanding. In support with quantitative findings, low proficient readers in interviews mentioned the use of *Problem Solving* strategies mostly followed by *Support* and *Global* strategies while dealing with academic texts. Different from low proficient readers, remaining 32 codes included expressions of high proficient readers on their use of FL reading strategies such as using contextual clues, information in text, taking notes, underlining important information and visualizing information. Quantitative data gathered through SORS about FL reading strategy use of high proficient students were supported by the interviews. That is, high proficient



readers reported to use *Global* reading strategies most, and it was followed by *Support* reading strategies and *Problem-Solving* strategies. Excerpts below taken from interviews illustrate difference between high and low proficient readers' FL reading strategy use:

a. (Student 7- student with low FL reading proficiency)

*"Most of the time I feel lost especially while reading academic articles. It seems that language used in such texts is too complex for me to understand. I usually give up reading those materials but it affects my success. In order to overcome such situation, I try to translate texts into my native language and discuss with other friends. I don't think I can handle these materials on my own"*

b. (Student 1- student with high FL reading proficiency)

*"Of course I experience some difficulties while reading academic materials...we have to deal with authentic texts and language in these texts is sometimes beyond our level. But I try to understand...For example, I re-read the text many times if I have difficulty. In each reading, I understand different points and it helps very much. I try to use contextual clues to understand unknown words or sometimes I use a dictionary... I sometimes search for unknown concepts on the Internet and I try to make a connection with what I already know about topics."*

As displayed in the student excerpt above, it was evident from learners' expressions that learners with high FL reading proficiency were more aware of FL reading strategies and their importance for successful reading experience. They used various FL reading strategies while reading academic materials. Students from high FL reading proficiency level commented on their FL reading strategy use as:

c. (Student 3- student with high FL reading proficiency)

*"I take notes....they are usually in phrases in my own words in margins. When I read my own sentences, they make sense for me"*

d. (Student 4- student with high FL reading proficiency)

*"Generally, I highlight important information. When I go back to text again, those highlighted information helps me... I sometimes summarize the text if I think information is really important. I have a small notebook for this."*

In contrast to high proficient FL readers, although learners with low FL reading proficiency knew concept of strategies they did not employ effective and appropriate reading strategies while dealing with academic materials in English. Students' excerpts below include low proficient

students' ideas about their FL reading strategy use:

e. (Student 6- student with low FL reading proficiency)

*" I know highlighting important points in text is crucial, but for the materials we have to read I cannot differentiate important points from unimportant ones. I think all the information is important so I have difficulties... I find myself highlighting every single sentence in academic materials"*

f. (Student 8- student with low FL reading proficiency)

*"I know some strategies for reading, but...just their names. I don't know which ones are useful for me. So I think I can't use the strategies I know"*

As evident from the excerpt above, although low proficient FL readers displayed an awareness of FL reading strategy use and their importance, they were unable to use them appropriately when they were in need while reading academic materials. All low proficient readers in interviews admitted that they usually experienced difficulty while reading various academic materials and they were not successful in the courses that required large amounts of academic reading. One of the students with low FL reading proficiency in interviews expressed the difficulty she faced while reading academic materials and its effects on the courses as:

g. (Student 7- student with low FL reading proficiency)

*"I always have difficulty in understanding academic texts and I can't deal with them successfully...I mean I can't follow ideas in academic texts and can't handle texts with so many unknown words. Especially for the courses related to our field, for example methodology or linguistics, I don't have good grades. These classes require you to read so many texts. I waste time trying to understand important points in these texts... You see I'm not a good reader at all."*

To support the quantitative findings and elicit more opinions, selected high and low proficient readers were asked whether they think their level of proficiency in FL reading was important in understanding and comprehending academic materials, and whether their proficiency in FL reading made a difference in the employment of FL reading strategies while reading academic materials. All of the students taken for the interview (n=10) thought level of FL reading proficiency was important for understanding academic materials.

Four of the students told that there might be a relationship between FL reading proficiency and FL reading strategies whereas six of them acknowledged that they did not think about such a relationship before.

The following student excerpts taken from the interviews illustrate students' ideas about this relationship.

h. (Student 8- student with low FL reading proficiency)

*"I haven't thought about such a relationship between proficiency in FL reading and strategy use".*

i. (Student 2- student with high FL reading proficiency)

*"I think both proficiency in reading and strategy use are very important.... Both strategy use and proficiency affect how you understand texts.... Especially literary texts."*

As a consequence, results of the study have shown that participants used various FL reading strategies while reading academic materials but there was not a strong relationship between FL reading strategy use and FL reading proficiency. Moreover, interview data have indicated that learners with high and low FL reading proficiency differed in their employment and awareness of effective FL reading strategies.

## DISCUSSION

The study reported here unveiled metacognitive awareness and perceived use of reading strategies of learners in a Turkish EFL context while reading academic materials. Results of the study have yielded that *Problem-Solving* strategies such as adjusting reading speed, paying close attention to reading and visualizing information are mostly used strategies by the participants of the study. What is more, *Global* reading strategies such as having a purpose for reading, using context clues and predicting or guessing content of the text appear as the second mostly used FL reading strategies. On the other hand, *Support* reading strategies such as taking notes while reading and paraphrasing information are not used much by the participants. In general, Turkish EFL learners in the study reported high usage of FL reading strategies while reading academic materials.

This study adds to current literature on FL reading strategies by displaying perceived use of FL reading strategies of students in a Turkish EFL context. Findings of the study related to types of FL reading strategies used correspond to findings of Sheorey and Mokhtari (2001) who found that non-native readers showed a high preference for using FL reading strategies while reading academic materials. In this study, non-native readers highly used *Support* reading mechanisms such as using a dictionary, taking notes or underlining textual information. Likewise, Mokhtari and Reichard (2004) found that both Moroccan and American university level students reported high usage of *Support* reading strategies and it was followed by *Global* reading strategies and *Problem-Solving* strategies respectively. However, these findings are not congruent with the findings of the present study as participants had a clear preference for the use of *Problem-Solving* strategies. In

contrast to findings of Sheorey and Mokhtari (2001) and Mokhtari and Reichard (2004), in a recent study by Martinez (2008) Spanish university students were found to show higher reported use for *Problem-Solving* and *Global* reading strategies. Findings of the present study are in corroboration with that of Martinez (2008) as students in a Turkish university EFL contexts reported high preference for *Problem-Solving* and *Global* FL reading strategies rather than *Support* reading strategies.

One possible explanation for this finding may be the amounts of the problems participants faced while reading academic materials. Participants reported to experience problems while reading academic articles in their own field, ELT, due to difficult terminology and complex structures these texts include. Such academic texts involve complex use of grammar, a great deal of unknown vocabulary and cultural concepts that are not familiar to Turkish students. Since those texts are highly important for their academic success, students may feel like they have to understand every bit and piece of these texts, which in turn, create some problems for them. This study puts forward that students in a Turkish EFL context generally try to solve problems related to academic texts in order to handle challenges they face in FL reading. Hence, difficulties and problems students experienced with such academic materials in this study may reveal a preference for the use of *Problem-Solving* strategies. A similar concern was reported by Dhieb-Henia (2003) who found that students often have problems in dealing with academic texts in their fields of study due to the high range of vocabulary and relative importance of these texts to students. She further claims that using appropriate reading strategies are crucial for these students to overcome problems they experience. Hence, students in this study may have a preference for using *Problem-Solving* strategies to deal with difficulties imposed by academic reading materials.

One of the aims of the study was to investigate whether proficiency in the target language reading made a difference in the use of FL reading strategies. Results of correlation and regression analyses in general have indicated that participants' use of FL reading strategies was not dependent on their FL reading proficiency and vice versa. Although all students reported a high usage of FL reading strategies in general, when high and low proficiency readers were interviewed, it was revealed that they differed in their employment of FL reading strategies. High proficient FL readers were more aware of using appropriate and effective strategies while dealing with academic materials. On the other hand, even though learners with low levels of FL reading proficiency highlighted the importance of using FL reading strategies for more successful reading experience, it was apparent from their comments that they were not aware of how to employ appropriate reading strategies for their academic studies.

One explanation of this can be the difference in

metacognitive awareness of high and low proficient readers. As reported by Grabe (2009), although all readers use strategies good readers are more metacognitively aware of strategic responses to text difficulties, and thus they use strategies more effectively than do poor readers.

Findings of the study can be evaluated in comparison with that of Ahmad and Asraf (2004) who found that good readers were more successful in deriving meaning from context, finding main ideas and forming judgment about text. Similarly, Yiğiter et al. (2005) emphasized that good readers were more successful in employment of certain reading strategies like predicting reason the author is writing, guessing meaning of unknown words, and identifying reasons or evidence writer gives. The high proficient readers in this study reported similar tendency in using effective reading strategies with that of good readers in Ahmad and Asraf's (2004) and Yiğiter et al.'s (2005) studies. That is, these students were more successful in employing effective strategies like finding the main ideas, guessing meaning from context and using context clues while reading academic materials. Students with high reading proficiency in recent study also reported to be more successful in selecting effective FL reading strategies for their purpose while reading academic materials.

As a consequence, results of the study emphasized awareness of using FL reading strategies and employment of appropriate and effective FL reading strategies while dealing with academic materials. It is also important to note that at this point that this study makes an attempt to investigate whether proficiency in FL reading make a difference in the use of FL reading strategies while reading academic materials rather than claiming that some strategies are better than the others and have the same effects for all readers. All in all, discussion of the results in comparison to previous studies in this section apparently puts forward that findings presented here will be quite helpful to draw a picture of the Turkish EFL students' perceived awareness of FL strategy use and its relation to FL reading proficiency.

## Conclusion

The prominent contribution of the recent study reported here to ELT field is that it is one of the first attempts to shed a considerable light on the FL reading strategy use of Turkish EFL students and the role of FL reading proficiency in their perceived awareness of reading strategy use while reading academic materials. Findings revealed that students in a Turkish EFL context use various FL reading strategies frequently. Although there was not a strong correlation between FL reading strategy use and FL reading proficiency, low and high proficient readers differed in their employment of FL reading

strategies. This finding highlights a need for strategy awareness and this study has certain implications from a pedagogical point of view for both language teachers and learners in different cultural contexts.

One implication is that teachers may lead low proficient readers to apply strategies they learned in various contexts including academic reading. Low proficient learners in this study stated that they knew the concept of reading strategies, but they had difficulty in determining which strategy worked best for them. In this respect, low proficient readers may need more practice for employing appropriate strategies in academic reading. In order to help these learners, teachers may design activities to guide learners use effective FL reading strategies while reading academic materials.

Another implication is that it is important to leave aside the idea that learners should already be able to use FL reading strategies when they come to academic reading context. That is, strategy training should not be limited to general reading but it should also be expanded to academic reading context. According to Mokhtari and Reichard (2004), even high proficient learners can experience difficulties while reading academic materials due to unfamiliar terminology, type of information they include and lack of necessary background to understand these materials. High proficient learners in this study reported similar concerns for their reading of academic materials. Hence, strategy training may be quite beneficial for both high and low proficient learners in order to comprehend and evaluate academic texts. Many researchers emphasize implementation of strategy training and it is assumed that such training should include teaching of how to gear use of reading strategies to different purposes of reading (Song, 1998; Singhal, 2001; Lau and Chan, 2003; Ikeda and Takeuchi, 2006; Çubukçu, 2008; He, 2008; Ghavamnia et al., 2013; Lin and Yu, 2013).

Administering instruments to students which may help them to be aware of their existing and various other FL reading strategies may be quite helpful to foster more awareness on reading strategies available. One of the students in the study stated that the instrument used in the study, SORS, was beneficial for her to become aware of the types of strategies to be used while reading academic materials. In addition to administering these kinds of instruments, self-regulated reading activities and strategy tips can be provided to learners in order to create awareness for employment of effective and appropriate strategies (de Milliano et al., 2014). Martinez (2008) pinpoints that if students are not aware of their own FL reading strategies, they cannot adopt effective strategies to deal with target language texts. Thus, the first step in strategy instruction may be to help learners realize whether they employ reading strategies, and if they do, what types of reading strategies work best for their reading purposes.

Teachers have an indispensable role in guiding

learners become aware of FL reading strategies (Tsai et al., 2010). One implication of this study is that teachers, especially English for Academic Purposes (EAP) teachers, should pay close attention to problems their learners face while dealing with academic materials and guide them in the employment of effective reading strategies. For academic texts, learners may need certain amount of background knowledge about the genre or topics. Some of the students in the study expressed that most of the time they had difficulty in reading academic materials due to lack of necessary background information or field-specific terminology. Moreover, they expressed that they cannot use reading strategies if texts are not familiar to them. To overcome these difficulties, teachers can provide necessary information about academic texts and show learners strategies they can use to activate such information.

Teaching and implementation of FL reading strategies may also help to reduce stress and frustration students may feel while dealing with academic materials (Alves-Martins et al., 2002; Aarnoutse and Schellings, 2003). Furthermore, learners may overcome their unrealistic expectations for understanding everything they read by employing appropriate FL reading strategies. They may also develop capability of using context clues and making correct guesses whenever they encounter with an unknown vocabulary item (Horwitz, 2001). Using effective and appropriate FL reading strategies may also foster more learner autonomy. That is, students can take responsibility of their own reading process and realize their strengths and weaknesses while reading target language texts. Moreover, applying reading strategies can increase motivation of learners (Aarnoutse and Schellings, 2003; Lau and Chan, 2003) and help them deal with academic texts more easily.

As a conclusion, this study pinpointed importance of awareness and employment of effective and appropriate FL reading strategies for more successful reading experience in academic contexts. One limitation of this study is that qualitative data regarding differences in FL reading strategy use of low and high proficient readers came only from interviews. A further study with different data collection instruments such as think aloud protocols while students are reading academic texts would be designed. A close investigation of FL reading strategy use in general teaching and learning contexts other than academic reading context would also be helpful to shed a considerable amount of light to find out how different readers use FL reading strategies in different contexts. What is more, studies in cultural contexts similar to or different from Turkish EFL students' would provide comparable results for FL reading strategy use of students in different cultural contexts.

### Conflict of Interests

The author has not declared any conflicts of interest.

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**Appendix A- Semi-Structured Interview Questions**

1. Do you face difficulties while reading academic materials in English such as course books, assignments and articles? If yes, what kind of difficulties do you experience? How do you think you overcome these difficulties?
2. Do you use FL reading strategies while reading academic materials? If yes, what kind of reading strategies do you employ while reading those materials in English?
3. Do you think your level of FL reading proficiency in English is important in understanding and comprehending those academic materials?
4. Does your FL reading proficiency make a difference in your employment of FL reading strategies while reading academic materials? If yes, how?