International Journal of Language Academy

ISSN: 2342-0251

DOI Number: http://dx.doi.org/10.18033/ijla.3591

Volume 5/3 Summer

2017 p. 23/34

Article History:
Received
18/05/2017
Received in revised form
25/05/2017
Accepted
30/05/2017
Available online
15/06/2017

METACOGNITIVE AWARENESS OF READING STRATEGIES AND ACADEMIC ACHIEVEMENT IN READING AND WRITING: A CORRELATIONAL RESEARCH IN AN EFL CONTEXT

Okuma Stratejilerine Dair Bilişüstü Farkındalık ve İleri Okuma ve Yazma Becerileri Dersindeki Akademik Başarı: Bir Korelasyon Araştırması

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Abstract

This study aims at providing an account on the relationship between freshman Turkish students' metacognitive awareness of reading strategies and their academic achievement in the Advanced Reading and Writing Skills course. In this particular study, the reading strategies employed by 52 freshman students studying in the English Language Teaching (ELT) department at a state university in Turkey were investigated and the gender difference in the use of reading strategies was described. To achieve this, the participants were administered a 30-item Likert-Scale Metacognitive Awareness of Reading Strategies Inventory (Mokhtari & Reichard, 2002) and descriptive statistics was applied in the analysis and presentation of the inventory items. Independent Samples T-test was utilized to see whether there was a difference between males' and females' metacognitive awareness of reading strategies. Afterwards, Pearson Correlation Coefficient, one of the simple bivariate correlation techniques, was employed to see if there was any significant relationship between the students' metacognitive awareness of reading strategies and their academic achievement in the Advanced Reading and Writing Skills course. Results revealed that problem-solving reading strategies were the most preferred strategies. In addition, there was not found any significant difference between metacognitive awareness of males and females. Finally, some implications were drawn from the correlation coefficient regarding the relation between metacognitive awareness of reading strategies and academic achievement in the Advanced Reading and Writing course.

Keywords: *Reading, writing, metacognitive awareness, academic achievement.*

Özet

Bu çalışmanın amacı birinci sınıf Türk öğrencilerin okuma stratejilerine dair bilişüstü farkındalıkları ve İleri Okuma ve Yazma Becerileri dersindeki başarıları arasındaki ilişki üzerine bir açıklama getirmektir. Söz konusu çalışmada Türkiye'de bir devlet üniversitesinde İngilizce Öğretmenliği Bölümü'nde okuyan 52 birinci sınıf öğrencisinin kullandığı okuma stratejileri araştırılmış ve okuma stratejileri kullanımındaki cinsiyet farkına bakılmıştır. Katılımcılara 30-maddelik likert tipi bir Okuma Stratejileri Bilişüstü

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Farkındalık Envanteri (Mokhtari & Reichard, 2002) uygulanmıştır. Envanterdeki maddelerin her biri betimsel analiz yöntemiyle analiz edilmiş olup, bulgular frekans ve yüzde halinde raporlanmıştır. Buna bağlı olarak, kız ve erkek katılımcıların okuma stratejilerine dair bilişüstü farkındalık düzeyi arasında anlamlı bir farklılık olup olmadığını anlamak için Bağımsız Örneklemler T-test analizi yapılmıştır. Devamında, öğrencilerin okuma stratejilerine dair bilişüstü farkındalıkları ve İleri Okuma Yazma dersindeki akademik başarıları arasında önemli bir ilişki olup olmadığını görmek amacıyla basit doğrusal korelasyon tekniklerinden Pearson Momentler Çarpımı kullanılmıştır. Sonuçlara göre, katılımcıların en çok tercih ettiği stratejiler problem çözme stratejileridir. Ayrıca, kız ve erkek katılımcıların okuma stratejilerine dair bilişüstü farkındalık düzeyi arasında anlamlı bir farklılık bulunamamıştır. Bunun yanı sıra, bilişüstü farkındalık düzeyi ve okuma yazma başarısı arasında herhangi bir ilişki olmadığı da saptanmıştır.

Anahtar Kelimeler: *Okuma, yazma, bilişüstü farkındalık, akademik başarı.*

Introduction

Foreign language learners need to perform well on four basic language skills in order to be able to understand and produce a very complex set of sentences in the target language. These skills can be classified as receptive and productive skills, the former involving reading and listening, the latter referring to writing and speaking skills. In this research, the focus is on the reading and writing skills which are two essential skills to be developed by foreign language learners.

A number of definitions for reading as a skill exist in literature, but a single definition can not be favored over the others since reading itself is "a complex combination of processes" (Grabe, 2009:14). Reading is, indeed, an active process in which readers need to employ particular skills and abilities to comprehend and interpret a text successfully. Comprehension, therefore, can be considered as the main purpose for reading in general. However, it is not an easy task for foreign language learners to interpret a text in a language of which they are non-native speakers. At this point, researchers suggest that strategies are considered as of utmost significance in enhancing foreign language learners' reading comprehension abilities (Yükselir, 2014; Hosseini et al., 2012; Yussof et al., 2012; Grabe, 1991; Block, 1986; Carrell & Eisterhold, 1983; Groebel, 1979). Block (1986) describes strategies as "a reader's resources for understanding" (p.465) which helps the reader comprehend the information on the printed page. Still, recent research suggests that merely using the strategies while reading does not necessarily mean that the readers are aware of the fact that they are using these strategies (Rajoo & Selvaraj, 2010). However, foreign language learners are expected to have awareness about the strategies they are using while reading in order to be able to adjust these strategies appropriately according to the purposes of reading and texts. Making an effective use of reading strategies can be achieved through a knowledge of where and when to use which strategy which requires an awareness of the reading strategies employed while reading.

This study aimed at revealing the reading strategies employed by freshman Turkish ELT students and exploring if there was any significant difference between males and females in their use of reading strategies. Furthermore, the link between the students' metacognitive awareness of reading strategies and their academic achievement in the Advanced Reading and Writing Skills course was examined. According to Fitzgerald and Shanahan (2000), reading and writing are two related skills in that they share four types of knowledge, namely, "metaknowledge", "domain knowledge about substance and content", "knowledge about universal text attributes" and "procedural knowledge and skill to negotiate reading and writing" (p.41). Since an emphasis was given to the reading and writing skills in particular, this study examined the Turkish ELT students' academic

achievement in Advanced Reading and Writing Skills course where reading and writing skills were integrated in an academic context.

Literature Review

Reading has long been one of the most widely studied areas in foreign language teaching research (Yükselir, 2014; Hosseini et al., 2012; Yussof et al., 2012; Ozek & Civelek, 2006; Grabe, 1991; Block, 1986; Carrell & Eisterhold, 1983; Groebel, 1979). In these studies, researchers found that the one basic distinction between a high achieving and low achieving reader was that high achieving readers tend to be "better strategy users" (Grabe, 1991:393). Also, the notion that gender may be an influential factor on the use of reading strategies by second language learners led to some research about the issue. A relevant study was carried out in Egypt and it was found out that female ELT students seemed to use reading strategies more frequently when reading in English (Arrastia, Zayed & Elnagar, 2016). Identically, Lee (2012) found that females used greater metacognitive strategies than males and this may be because females were better at learning a second language. Contrariwise, there was no significant difference between males' and females' metacognitive awareness of reading strategies in Poole's (2005) and Kasımi's (2012) studies. Poole (2005) also added that all participants used metacognitive strategies at high frequencies. Apart from gender, achievement in reading comprehension and the link between metacognition and reading strategies are in the scope of the present study. The following paragraph summarizes some studies about that link.

In a very recent research conducted by Meniado (2016) to investigate the relationship between Saudi EFL learners' use of metacognitive reading strategies and their reading comprehension performances, it was seen that while participants moderately used various metacognitive reading strategies, they performed below average on the reading comprehension test which refutes the existence of a relationship between metacognitive reading strategy use and reading comprehension. Still, since the majority of research supports the fact that there is a link between strategy uses and reading comprehension, researchers have long acknowledged the role of reading strategies in improving foreign language learners' reading skills in the target language. As the use of reading strategies have been proven to help language learners enhance their reading comprehension skills, implications have pointed to the necessity of strategy training in foreign language classrooms. Accordingly, some research has been conducted to investigate the effect of explicit instruction on the use of reading strategies by foreign language learners. As shown in two different experimental studies conducted by Şen (2009) and Aghaie & Zhang (2012), students receiving an explicit instruction on the use of reading strategies performed better on a reading comprehension test than their peers who did not receive any strategy training.

In recent years, however, the focus has mainly shifted from the use of reading strategies to the metacognitive awareness of the reading strategies. As stressed by Carrell (1989), a reader's awareness about his/her weaknesses as a reader will provide the reader with an opportunity to develop his/her own techniques to overcome the difficulties faced while reading. Accordingly, foreign language learners need to become aware of where and when to use which reading strategies in order to use them intelligently and purposefully. In a research conducted by Rajoo & Selvaraj (2010), it was seen that although the students utilize a number of strategies while reading in a foreign language, they use these strategies unconsciously with a lack of awareness about the fact that they are actually using strategies. With the consciousness raising activities gaining utmost significance in recent years, an extensive amount of research has been devoted to explore the foreign

language learners' metacognitive awareness of reading strategies (Pinninti, 2016; Hong-Nam, 2014; Hong-Nam et al., 2014; Takavoli, 2014; Magogwe, 2013; Memiş & Bozkurt, 2013; Khonamri & Kojidi, 2011; Anastasiou & Griva, 2009; Mokhtari & Reichard, 2002; Zhang, 2002; Carrell, 1989). In these studies, metacognitive awareness of reading strategies was found to make a significant contribution to reading comprehension and it was also seen that advanced readers tend to use the reading strategies more consciously than their less proficient counterparts, leading to a link between metacognitive awareness and proficiency level as well. As a result, it has been widely accepted that teachers are expected to raise the students' awareness of reading strategies to help them become more efficient readers in a foreign language.

The above studies present a link between metacognitive awareness of reading strategies and reading comprehension. Other studies refer to the link between metacognitive awareness and critical thinking skills, and reading proficiency as well. In some studies, a possible link is also considered to exist between metacognitive awareness and academic achievement since it is believed that academic learning can be enhanced through metacognition which is of interest in the present study (Magogwe, 2013; Rajoo & Selvaraj, 2010). Although much research has been conducted to identify the link between metacognitive awareness of reading strategies and reading achievement, there is hardly any research investigating the link between metacognitive awareness of reading strategies and academic achievement in a course where reading is the core skill to be developed in an academic context. This study aimed at filling this gap in literature by providing an account on the relationship between Turkish ELT students' metacognitive awareness of reading strategies and their academic achievement in the Advanced Reading and Writing Skills course.

Accordingly, this study attempts to answer the following research questions:

1. Which reading strategies are mostly used by Turkish ELT students when reading in English?
2. Is there any significant difference between males and females in terms of metacognitive awareness of reading strategies?
3. Is there any significant relationship between Turkish ELT students' metacognitive awareness of reading strategies and their academic achievement in Advanced Reading and Writing Skills course?

Methods

Research Design

A descriptive research design was implemented in this research as one of our attempts was to reveal the reading strategies used by freshman ELT students. A causal-comparative research design was employed to explore if there was any significant difference in the strategies used by male and female students. And, a correlational research design was established to describe the relationship between Turkish ELT students' metacognitive awareness of reading strategies and their academic performance in Advanced Reading and Writing Skills course. As Fraenkel et al. (2012) state, we can identify "the degree to which two or more quantitative variables are related" (p.331) through conducting a correlational research.

Participants

The research was carried out at a state university in Turkey. Convenience random sampling was chosen to select the participants who were 52 freshman students in English Language Teaching Department taking Advanced Reading and Writing Skills course where reading was one of the two core skills to be developed in an academic context. The participants involved 19 male and 33 female students, a point to be taken into consideration since one of our aims was to explore whether there was any significant difference between males and females in terms of their metacognitive awareness of reading strategies.

Instruments

In order to answer the first research question regarding the strategies used by Turkish ELT students , participants were administered Metacognitive Awareness of Reading Strategies Inventory (Mokhtari & Reichard, 2002) which was originally designed to assess "students' awareness and perceived use of reading strategies while reading academic or school-related materials" (p. 251). The inventory involves three subscales exploring global reading strategies, problem-solving strategies and support reading strategies. There are 30 statements in the inventory to which the participants respond from a 5-point Likert-Scale ranging from 1 'Never or almost never true of me' to 5 'Always or almost always true of me'. Afterwards, the students' overall grades in the Advanced Reading and Writing Skills course at the end of the term were accessed with permission from the course lecturer in order to find an answer to the second research question relevant to the relationship between metacognitive awareness of reading strategies and academic achievement.

Data Analysis

We analyzed the relevant data with the help of SPSS 23.0 (Statistical Package for Social Sciences, Version 23.0).Descriptive statistics was employed to identify the strategies used by Turkish ELT students and Independent Samples T-test was applied to describe the difference between males and females in terms of their use of reading strategies. Furthermore, Pearson Correlation Coefficient, one of simple bivariate correlation techniques, was used to describe the degree to which metacognitive awareness of reading strategies and academic achievement in Advanced Reading and Writing Skills course were related.

Findings

In the study, 52 (33 female, 19 male) students participated in total. In percentages, 63.5% of all participants were females and 36.5% of them were males. All of them filled the Metacognitive Awareness of Reading Strategies Inventory (MARSI) in appropriate ways and detailed findings were presented in tables below. Firstly, Global Reading Strategies (GLOB) Subscale which includes 13items about planned techniques to monitor or manage reading was examined in itself. Table 1 demonstrates the mean and standard deviation scores of each item in the GLOB subscale.

Table 1. Results of global reading strategies

No.	**Strategies**	**Mean**	**SD**
1.	I have a purpose in my mind.	4.23	0.78
3.	I think about what I know to help me understand what I read.	4.11	0.75
29.	I check to see if my guesses about the text are right or wrong.	3.94	1.16
25.	I check my understanding when I come across conflicting information.	3.94	0.89
4.	I preview the text to see what it is about before reading it.	3.90	1.05
26.	I try to guess what the material is about when I read.	3.82	0.85
7.	I think about whether the content of the text fits my reading purpose.	3.76	0.98
19.	I use context clues to help me better understand what I am reading.	3.76	0.87
14.	I decide what to read closely and what to ignore.	3.75	0.86
23.	I critically analyze and evaluate the information presented in the text.	3.71	0.89
10.	I skim the text first by noticing characteristics like length and organization.	3.28	1.12
17.	I use tables, figures, and pictures in text to increase my understanding.	3.07	1.29
22.	I use typographical aids like bold face and italics to identify key information.	2.67	1.20

As illustrated in Table 1, Items 1, 3, 25 and 29 had the highest mean (X1=4.23, X3=4.11, X25=3.94, X29=3.94) and the lowest standard deviation scores except for Item 29 (std1=0.78, std3=0.751, std25=0.89, std29=1.16). That is to say, among global reading strategies, participants mostly stated that they had a purpose in their mind and theythought about what they knew to help them understand what they read. Moreover, they generally checked their understanding if there was conflicting information or if their guesses about the text were right or wrong. However, Items 10, 17, 22 and 23 had the lowest mean (X10=3.28, X17=3.07, X22=2.67, X23=3.71) and the highest standard deviation scores except for Item 23 (std10=1.12, std17=1.29, std22=1.20, std23=0.89). All these mean that the less frequent strategies were skimming the text, using tables, figures and pictures or using typographical aids and critically analysis/evaluation of the information.

Secondly, Support Reading Strategies (SUP) Subscale which is related to some support mechanism to improve comprehension was examined in itself and Table 2 shows the mean and standard deviation scores of 9 items included in the SUP subscale.

Table 2. Results of support reading strategies

No.	**Strategies**	**Mean**	**SD**
12.	I underline or circle information in the text to help me remember it.	4.36	0.99
24.	I go back and forth in the text to find relationships among ideas in it.	3.92	0.96
15.	I use reference materials such as dictionaries to help me understand what I read.	3.88	0.94
2.	I take notes while reading to help me understand what I	3.65	1.15

	read.		
20.	I paraphrase (restate ideas in my own words) to better understand what I read.	3.57	1.17
6.	I summarize what I read to reflect on important information in the text.	3.51	1.03
28.	I ask myself questions I like to have answered in the text.	3.42	1.17
9.	I discuss what I read with others to check my understanding.	3.21	1.16
5.	When text becomes difficult, I read aloud to help me understand what I read.	3.09	1.31

As understood from Table 2, Items 12, 15 and 24 had the highest mean (X12=4.36, X15=3.88, X24=3.92) and the lowest standard deviation scores (std12=0.99, std15=094, std24=0.96). These results show that participants generally preferred to underline or circle information in the text, touse reference materials such as dictionaries or to go back and forth in the text to find relationships among ideas in it.Contrary to that, Items 5, 9 and 28 had the lowest mean (X5=3.09, X9=3.21, X28=3.42) and the highest standard deviation scores (std5=1.31, std9=1.16, std28=1.17). As indicated in these items, reading aloud, discussion with others to check understanding and askingoneself questions were the less frequent reading strategies for the majority of participants.

Thirdly, Problem Solving Strategies (PROB) Subscale regarding problems faced while reading was examined in itself and Table 3 presents the mean and standard deviation scores of 8 items in the PROB subscale.

Table 3. Results of problem-solving strategies

No.	**Strategies**	**Mean**	**SD**
16.	When text becomes difficult, I pay closer attention to what I am reading.	4.53	0.67
27.	When text becomes difficult, I re-read to increase my understanding.	4.30	0.75
30.	I try to guess the meaning of unknown words or phrases.	4.30	0.82
11.	I try to get back on track when I lose concentration.	4.19	0.79
13.	I adjust my reading speed according to what I am reading.	4.01	0.98
8.	I read slowly but carefully to be sure I understand what I am reading.	4.00	1.08
18.	I stop from time to time and think about what I am reading.	3.78	0.97
21.	I try to picture or visualize information to help remember what I read.	3.61	1.22

As seen in Table 3, Items 16, 27 and 30 held the highest mean (X16=4.53, X27=4.30, X30=4.30) and the lowest standard deviation scores (std16=0.67, std27=0.75, std30=0.82). That is, participants were in more favor of paying closer attention to what they read, re-reading to increase their understanding and guessing the meaning of unknown words/phrases. Apart from these, Items 8, 18 and 21 had the lowest mean (X8=4.00, X18=3.78, X21=3.61) and the highest standard deviation scores (std8=1.08, std18=0.97, std21=1.22). These scores proves that participants were less in favor of reading slowly but carefully to be sure of their understanding, stopping from time to time and thinking about what they were reading and trying to picture or visualize information to help remember what they read.

Overall, when findings were examined as a whole regardless of subscales, it is seen that Item 16 had the highest mean (X16=4.53) and the lowest standard deviation scores (std16=0.67). Namely, "paying closer attention to what is read when text becomes difficult" which is one of problem-solving strategies was the most frequent strategy. In terms of the least frequent strategy, Item 22 had the lowest mean (X22=2.67) and one of the highest standard deviation scores (std22=1.20). This means that "use of typographical aids like bold face and italics to identify key information" which is one of the global reading strategies was the least preferred strategy by most of the participants. After the analyses of items one by one, total scores from each subscale and the overall score from the MARSI were described in Table 4 that summarizes the mean and standard deviation scores of each subscale and the overall score from MARSI.

Table 4. Total results of reading strategies

	GLOB	**SUB**	**PROB**	**OVERALL**
Number of Items	13	9	8	30
Mean	3.69	3.63	4.10	3.78
SD	0.47	0.60	0.49	0.45

Table 4 shows that the highest mean score (4.10) belongs to PROB Subscale which aims to identify how participants tend to solve problems they encounter while reading. Accordingly, problem-solving strategies were the strategies that participants make use of very frequently. Concerning the mean scores of GLOB (3.69) and SUP (3.63) subscales, it can be said that they have very close scores with each other, which means that global and support reading strategies were used on an almost equally basis.

Another concern for the study was about the role of gender in metacognitive awareness of reading strategies and Table 5 is about the t-Test result showing the comparison between metacognitive awareness of female and male participants.

Table 5. Metacognitive awareness of female and male students

Gender	**N**	**X**	**S**	**T**	**P**
Female	33	113.85	14.17	.293	.382
Male	19	112.68	13.16		

(t(50)= .293,p≥0.05)

As seen in Table 5, there is not a statistically significant difference between the mean rate of female students (Xf=113.85) and the mean rate of male students (Xm=112.68) with regard to their metacognitive awareness of reading strategies. In relation to that, the significance value (p) was over 0.05. (t(50)=.293, p≥0.05). According to this, it can be said that gender may not have an important or meaningful influence uponparticipants' metacognitive awareness level of reading strategies. Table 6 shows the correlation between metacognitive awareness and academic achievement.

Table 6. Correlation between metacognitive awareness(MA) and academic achievement(AA)

		MA	**AA**
MA	Pearson Correlation	1	.096
	Sig. (two-tailed)		.500

	N	52	52
AA Correlation	Pearson	.096	1
	Sig. (two-tailed)	.500	
	N	52	52

***.Correlation is significant at the 0.01 level (2-tailed).*

As understood in Table 6, there was not a significant relationship between participants' metacognitive awareness of reading strategies and their academic achievement. According to the results of Pearson Moment Correlation Test, it can be asserted that there was not a meaningful and positive relationship between ($r=.096$, $p\geq.01$). In other words, if the participants' metacognitive awareness of reading strategies increases or decreases, this may not necessarily indicate that their academic achievement will increase or decrease.

Discussion and Conclusions

The focus of this particular study was upon metacognitive awareness of reading strategies, the role of gender on reading strategies and the correlation between metacognitive awareness and academic achievement. To investigate all these, MARSI was administered to participants and scoring rubric of MARSI was taken into consideration. In this rubric, 3.5 and scores above it are regarded as "high" scores, scores between 2.5 and 3.4 mean "medium" and lastly scores below 2.4 are accepted as "low" scores. Accordingly, it can be stated that each strategy in the inventory had a mean rate above 2.67. This can be interpreted that all reading strategies were used by most of the participants at least with a "medium" level of awareness.

When total scores of each subscale are considered, it can be asserted that participants made use of reading strategies with a "high" level awareness and the highest score belonged to PROB subscale (4.10). Similarly, the overall score (3.78) showed that participants were at a "high" level of awareness about their reading strategies. This is in consistency with the findings of Poole (2005) claiming that metacognitive reading strategies were used at a high frequency.

In terms of gender, it was found out that there was not a meaningful link between metacognitive awareness of reading strategies of males and females.In consistent with that, Poole (2005) and Kasımi (2012) claimed that gender did not play a crucial role in defining the metacognitive awareness of reading strategies. However, the non-influential role of gender in the present study did not overlap with findings of some studies. For instance, it was revealed that females used metacognitive strategies more often than males (Lee, 2012; Arrastia, Zayed & Elnagar, 2016).

With regard to correlation between metacognitive awareness of reading strategies and academic achievement in Advanced Reading and Writing Skills course, no significant relation was found out in the current study. In a similar vein, Meniado (2016) argued that there wasno relationship between metacognitive reading strategy use and reading comprehension. However; many other studies (Pinninti, 2016; Hong-Nam, 2014; Hong-Nam et al., 2014; Takavoli, 2014; Magogwe, 2013; Memiş & Bozkurt, 2013; Khonamri & Kojidi, 2011; Anastasiou & Griva, 2009; Mokhtari & Reichard, 2002; Zhang, 2002; Carrell, 1989) supported the idea that there was a connection between metacognitive

awareness and academic achievement in reading and writing skills. That is to say, the current study contradicts with most of the other related studies. It may be because of the context of this study or the participants' insufficient use of metacognitive reading strategies that they have already been aware of (Koşar & Bedir, 2015).

The lack of any connection between metacognitive awareness of reading strategies and academic achievement in reading and writing may show us that there can be some other factors influencing participants reading and writing skills in such an academic context. To exemplify, the most probable reason for this may be about the participants' unguided or unconscious usage of reading strategies. This is most probably linked to metacognition. Identically, some studies show that a possible link might exist between metacognitive awareness and academic achievement since academic learning can be enhanced through metacognition (Magogwe, 2013; Rajoo & Selvaraj, 2010).

As an implication, it should be stated that academic achievement and metacognition in any kind of language skill may be indirectly related to critical thinking skills (Bedir, 2013). This is because one needs to be aware of his/her metacognitive skills in order to realize how he/she could be better in improving language skills and correspondingly academic achievement. Especially for advanced reading skills, being a critical thinker or reader can be of crucial importance in order to select and use appropriate reading strategies. Using appropriate reading strategies may depend on the reading ability in English, which is a foreign language in the present study, on the type of material, purpose in reading and so forth. Needless to say, all these require a high level of metacognitive awareness. Participants of the present study were found to have a high level of metacognitive awareness of reading strategies, but still, it can be suggested that the lecturers should use explicit teaching methods, particularly with an aim to make students explore their own techniques in reading since one basic distinction between a good and a poor reader was that good readers tend to be "better strategy users" (Grabe, 199:393). In that respect, an explicit instruction on the use of reading strategies provides students to perform better on reading comprehension activities (Aghaie & Zhang, 2012; Şen, 2009).

Limitations

Merely MARSI and scores in Advanced Reading and Writing Skills course were utilized in the study. As a well-known fact, MARSI required participants to report what they declared to do, that is, it was some kind of a self-report. In fact, participants might not say what they actually do when responding to the statements in the MARSI. For this reason, interviews could be conducted with a number of participants to see whether they were really using reading strategies consciously or with suitable purposes. Another limitation may be related to the fact that MARSI is only investigating individuals' reading strategies; however, in this study, the connection between reading strategies and academic achievement in reading and writing were scrutinized. Moreover, a similar study can be carried out in different contexts with participants who have a different level of English.

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