

# The Metacognitive Reading Strategies Employed by Jordanian English as a Foreign Language Students at Al-Balqa Applied University

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## Abstract

This paper reports a study that investigated the general use of met- cognitive reading strategies by Al-Balqa Applied University EFL students. The Survey of Reading Strategies Questionnaire (SORS) ( Mokhtari and Sheory, 2002) was administered to the 86 male and female participants during the second semester of the academic year 2016/2017. The data were analyzed through descriptive statistics to reveal the frequency and type of strategies utilized by the sample participants. The results obtained illustrated that Al-Balqa Applied University EFL learners are high users of the three types of meta-cognitive reading strategies ( $M = 3.6023$ ,  $S.D. = 1.3189$ ), and the most frequently used strategies were problem solving ( $M = 3.8081$ ,  $S.D. = 1.0610$ ), followed by support strategies ( $M = 3.5393$ ,  $S.D. = 1.2301$ ), and then global strategies ( $M = 3.5169$ ,  $S.D. = 1.5392$ ). It is recommended that further studies of this kind should be conducted to achieve a deeper understanding of Jordanian EFL learners' strategy use. Further studies dealing with how the gender and major of the students affect their use of these strategies are also of great importance. Studies like these can assist teachers and curricula planners deal more successfully with the future needs of the educational sector in Jordan.

**Keywords:** Metacognitive, Reading Strategies, Support Strategies, Global Strategies, Problem Solving Strategies, English as a Foreign Language (EFL).

## 1. Introduction

Reading has always been dealt with as the most important skill in any language teaching system. Whether it is a traditional educational system or a computer –based one, this complex skill that needs successful participants to be active readers, has founded itself a place at the top of any educational pyramid. This situation has caused researchers to give more attention to the strategies used by learners of English as a second language (ESL) and learners of English as a foreign language (EFL) to assist them tackle the difficulties they face while reading any text written in English. It is widely accepted that the use of effective reading strategies can really help readers to minimize the time and effort they usually need to understand an English text (Saman, 2009). This is why it becomes more and more important to examine and reveal how EFL students utilize the reading strategies and to highlight the strategies they rely on most of the time (Dundar, 2016). Regardless of the slight differences that exist among researchers concerning how to define the reading strategies, all of them revolve around and emphasize the same focal point. These strategies are the means of attack, techniques or strategies employed by learners to solve any problem they face in their attempts to make sense of what they read ( Singhal, 2001; Brantmeier, 2002 ).

A good bulk of research highlights the fact that EFL learners employ a wide range of metacognitive reading strategies to assist them overcome any difficulties and avoid chances of comprehension failure. Researchers around the world have also proved that more successful and highly proficient learners utilize a variety of metacognitive reading strategies more intensely than less proficient students (Rastegar, Kermani and Khabir, 2017; Lien, 2014).

In The Hashemite Kingdom of Jordan, where English is recognized as a foreign language, reading is the skill that receives the most emphasis. Most university courses are taught in English which maximizes the need for students to be skillful and successful readers to make their university life easier, A scarce amount of research has tried to examine the metacognitive reading strategies in this country, however. Carrying more research in this area is a priority especially because there is hard empirical evidence proving the existence of a positive relationship between students' inclination to employ the metacognitive strategies and their ability to stand out academically (Magogwe, 2013).

Reading strategies in general are techniques that students employ to increase their comprehension when reading passages. (Lee, 2012). Munsakorn (2012) believes that EFL students do not properly comprehend the texts they read due to the fact that they do not utilize the needed and suitable reading strategies. Reading strategies are classified as cognitive and metacognitive. The cognitive reading strategies give the learners the abilities essential to get the meaning from a certain text, while the metacognitive strategies allow the readers to evaluate their reading process (Lein, 2014). Magogwe (2013) adds that the metacognitive strategies are the

arrangements that the learners employ to assess their learning process.

The importance of the metacognitive reading strategies is demonstrated by the good number of studies that reveals the existence of a strong relation between the employment of these strategies and reading comprehension success as made clear in the Literature Review section of this paper.

### *1.1. Study Problem*

Reading, the life-long companion of any learner, is a basic skill that allows students to get the jest of a written text. Many researchers agree that it is the most important skill that a student develops during his/her school years. Its importance is not restricted by an academic stage, however. (Lee, 2012; Munsakorn, 2012)

When Jordanian students join universities, they find that most of their courses, regardless of their field of study, are taught in English which means that they have to do a lot of reading to pass their exams. Al-Balqa Applied University students' poor reading abilities are reflected in the low marks they earn in the reading comprehension exams administered as part of their English 099, English 101 and English 102 compulsory service courses. This uncovers the fact that the reading strategies of all types and classifications are totally ignored during school years and are hardly given any attention at the university EFL courses.

### *1.2. Objectives of the study*

The bulk of research papers dealing with the topic of metacognitive strategies present us with a variety of results and we still need to do more hard work in this area to enable curricula planners and teachers to steer their efforts to the right direction. As a result, this study is aimed to investigate the nature of reading strategies implemented by Al-Balqa Applied University/Center Colleges EFL students when they tackle English reading comprehension texts. The sample participants of both sexes belonged to different majors and range from freshmen to seniors so that a more general understanding could be achieved.

### *1.3. Study Questions*

This study aims to answer the following questions

- 1- How frequently do EFL students at Al- Balqa Applied University use metacognitive reading strategies ?
- 2- What metacognitive reading strategies do Al- Balqa Applied University EFL students employ most commonly?

### *1.4. Significance of the Study*

Although reading is treated as the most important of the four skills at schools and universities, Jordanian EFL students' reading strategies has not received the attention it deserves in the literature. Therefore, this study that aims to shed light on the reading strategies in an attempt to provide a deeper understanding of this issue. This study is significant on both the theoretical and pedagogical levels. Concerning the theoretical side, it tries to clarify how frequently Jordanian EFL students utilize the metacognitive reading strategies and to highlight the strategies most employed; adding more material to minimize the deficit in this field of research. Pedagogically, this paper supports English teachers and lecturers with the kind of information that might help them gain a deeper understanding of the way their students approach the reading texts; enhancing the chances for both sides to improve their achievements.

## **2. Literature Review**

Researchers worldwide continue their efforts to gain more understanding of the strategies EFL students employ to deal with English texts of all kinds.

Soharni (2017) conducted a study to shed light on the metacognitive reading strategies utilized by a sample of 30 participants registered in a critical reading class in a program of English Education at Syiah Kuala University. The results reached depicted that the students highly used the metacognitive reading strategies with the problem solving reading strategies coming first.

Mahasneh, Alkhaldeh and Almakani (2016) investigated the metacognitive awareness of reading strategies used by 148 Jordanian EFL students. The researchers employed the Metacognitive Awareness of Reading Strategies Inventory ( MARSIS ) which allowed them to reach the results that metacognitive reading strategies were highly employed with the Problem Solving strategies coming first while Global and Support strategies were less employed.

Hoang (2016) found that the Vietnamese students studying at British universities were medium users of reading strategies. The global reading strategies were the most employed by the high proficiency subjects leaving the support reading strategies to be the commonest among the low proficient participants.

Panchu, Bahuleyan, Seethalaskshmi and Thomas (2016) conducted a study to evaluate the metacognitive awareness of reading among medical students in India. Analyzing the data obtained through the Metacognitive Awareness of Reading Strategies Inventory (MARSIS) it was revealed that the metacognitive

awareness of reading strategies was high. Problem solving strategies were the highest in the frequency of use, succeeded by the support and global reading strategies.

One hundred twenty-two English Language Teaching students at Sakaraya University in Turkey formed the sample in Kocaman's and Beskadesler's (2016) study. The paper tried to examine the students' metacognitive awareness of reading strategy use and to clarify what types of reading strategies were utilized. The data obtained via the Metacognitive Awareness of Reading Strategies inventory (MARSİ) demonstrated senior students employed the metacognitive strategies more than the others. All of the participants in the study utilized global reading strategies more than problem solving and support reading strategies.

In a study that aimed to shed light on the strategy use among Iranian EFL learners across different proficiency levels, Mirzapour (2015) employed the Preliminary English Test (PET) and the Original Survey of Reading Strateg (SORS) as data collection instruments. The advanced learners were found employing the Global and Problem Solving strategies more than the intermediate participants tended to. The Support strategies were equally used by both groups of learners.

Since more and more universities around the world employ online ESL courses, Zarrabi (2015) decided to investigate the metacognitive online reading strategies employed by highly proficient non-native English-speaking graduates of Translation, Interpretation and Language Education at Middlebury Institute of International studies. The 46 sample students finished an Online Survey of Reading Strategies (OSORS). Recording think-aloud sessions of six volunteers was also employed to gain qualitative data. The analysis of the quantitative data underlined the fact that all three strategy groups were present. The participants used the problem solving strategies the most while the support strategies occupied the least frequency use.

In a qualitative study by Brazzle (2014) applied to investigate the types of reading strategies used by university Spanish students while reading literary texts, it was found that although different reading strategies were employed, the students were not aware of the metacognitive and affective strategies.

The Reading Strategy Inventory was employed by Lien (2014) to explore the reading strategies employed by 411 tertiary English major students in Taiwan. The participants showed tendency towards utilizing the cognitive reading strategies more frequently than the metacognitive strategies.

Tavakoli (2014) investigated the frequency and type of strategies used by Iranian university EFL students. Depending on the Survey of Reading Strategies (SORS), the semi-structured interview technique, and a reading comprehension test as instruments, the results proved that Iranian EFL students' awareness of reading strategies was moderate and when put in a descending order of frequency, Support Reading Strategies came first followed by Global Reading Strategies and Problem Solving Strategies, respectively.

Chan and Intaraprasert (20014) investigated the reading strategies utilized by university business English majors with different levels of reading proficiency. The study revealed that the higher reading proficiency students utilized the reading strategies more frequently than the students with lower reading proficiency.

Jom'a (2013) in her M.A thesis tried to explore the use of metacognitive reading strategies employed by the Birzeit university EFL students while reading English texts. The study also shed light on the strategies used by high proficiency students and low proficiency students. The Survey of Reading Strategies (SORS), a reading comprehension exam and retrospective interviews were the instruments used in this study. The 180 participant students revealed high and medium use of the metacognitive strategies with Problem Solving coming first, followed by Support strategies and Global strategies occupying the last place. It was also found that high proficient students employed the three strategies more often than the low proficient students did.

Magogwe (2013) tracked the metacognitive reading strategies employed by students studying at the Faculty of Social Sciences at the University of Botswana. The researcher employed the Survey of Reading Strategies questionnaire (SORS) to collect the needed data. The results highlighted that 29.2% of the students reported high use of problem solving reading strategies with the "when text becomes difficult, I re-read it to increase my understanding" strategy obtaining the highest score of frequency. The global reading strategies and the Support reading strategies were found of medium frequency.

Akkararitwutthikun and Sappapan (2013) investigated the utilization of the reading strategies by Thai postgraduate students. The 85 participants were divided into high proficiency students (31 participants) and low proficiency students (27 participants). The Survey of Reading Strategies (SORS) was the study instrument. The data analysis pointed that all participants employed all three strategies regardless of their proficiency level. Global strategies were the ones most used by the high proficiency students compared to the support reading strategies which were least favoured by this group. The low proficiency participants opted for the problem solving strategies preferring to minimize the frequency of the support strategies.

Shikano (2013) explored the metacognitive awareness of reading strategies use in English. The experiment dealt with 60 Japanese university students. The Metacognitive Awareness of Reading Strategies Inventory (MARSİ) was the instrument that revealed that Japanese Students preferred to utilize problem solving strategies more often than global and support strategies.

A study investigating the reading strategies utilized by Iranian ESP students while dealing with authentic expository texts in English by Jafari and Shokrpour (2012) proved that the 81 male/female participants were moderate users of the metacognitive reading strategies. The data obtained through the Survey of Reading Strategies (SORS) demonstrated that the students employed the support strategies in most cases, followed by global and problem solving reading strategies respectively.

A study by Alsheikh and Mokhtari (2011) aimed to compare the reading strategies used by native speakers of Arabic when reading in English and Arabic. The instruments used were a self-report survey of strategy use and a think-aloud protocol. The analysis reported that the 90 participants employed all of the strategies in SORS when reading in Arabic and in English. The strategy that scored the highest frequency was Problem Solving strategies and the least frequent were the Support reading strategies. Significant differences were traced when reading in Arabic and in English, however. The participants preferred Problem Solving strategies and Support strategies when reading English texts more than they did when exposed to texts in Arabic.

A study by Genc (2011) examined the metacognitive reading strategies used by low-proficient EFL learners while reading paper-based texts and hyper-text documents for general comprehension. The researchers employed Survey of Reading Strategies (SORS) and Online Survey of Reading Strategies ( OSORS ) as instruments to obtain the relevant data from the 32 sample students. The third instrument which is the think-aloud protocol was applied to five students. The data analysis pointed out that the metacognitive reading strategies employed in hypertext reading do not differ from the ones utilized in paper-based reading especially strategies like “using reference materials” and “ translating from English to Turkish.”

Tabatabaei and Assari (2011) carried out a study to investigate the frequency of employing the metacognitive reading strategies by their 90 intermediate participants who belong to different fields of study. The participants completed the Survey of Reading Strategies ( SORS ) revealing a moderate use of the metacognitive reading strategies while reading academic texts in English.

A study by Park (2010) proved that the Korean EFL college students employed the metacognitive strategies with high frequency while reading authentic expository / technical texts in English. This intensity becomes lower when they are exposed to narrative texts in English. It was also revealed that the higher the reading comprehension ability was, the more reading strategies were employed.

Iwai (2009) studied the metacognitive strategies employed by the students of English as a Second Language in the south-eastern part of the United States of America while dealing with academic texts. The study which covered 98 students employed the Survey of Reading Strategies ( SORS ) and Semi-structured interviews to obtain the data. The study proved that a variety of strategies were used like adjusting the reading speed, using prior knowledge, inferring text, focusing on typographical features and summarizing. When facing difficulties, the interviewed participant students depicted a tendency to employ strategies like context clues, re-read, and depending on supportive resources.

Malcolm (2009) investigated the reading strategy awareness of Arabic-speaking medical students studying in Bahrain. The data analyses obtained from a questionnaire completed by 160 participants depicted a high utilization of the metacognitive reading strategies in general. Initial student and low proficiency participants opted for translating more than the other participants. This same strategy is less employed by high proficiency and upper year students.

The metacognitive reading strategies are found to be moderately to highly used by ESP university students from the Faculty of Chemistry and the Technical School of Engineering of the University of Oviedo, Spain. In this study by Martinez (2008), the data analysis proved that the participants were more inclined to use Problem Solving and Global reading strategies.

In a study that aimed to investigate whether the different cultural environments affect students' use of metacognitive reading strategies, Mokhtari and Reichard (2004) allowed 350 college students to complete a questionnaire developed to reach the aforementioned aim. The 141 US and 204 Moroccan participants reported using almost similar reading strategies while reading academic materials in English.

Another study that sheds light on the difference in the metacognitive strategies implemented by native and non-native readers dealt with 150 native-English-speaking US and 152 ESL students. This study by Sheory and Mokhtari (2001) revealed the fact that both native and non-native students employ and use the same strategies with the same order; with the Support Strategies being the least frequent.

### **3.Methodology**

#### *3.1.Limitations of the Study*

The current study is limited to Al-Balqa Applied University students / the center colleges, during the second semester of the academic year 2016 – 2017.

### 3.2. Participants

The participants of this study consisted of 86 random participants (37 males=43.1%, 49 females= 56.9) registered in the English 101 and English 102 service courses. The low to high participants range from freshmen to seniors and were majoring in different fields of study like English language and Literature, Law, Child Education, Business and Project Planning, Information Technology, Agriculture, Physics, Mathematics, Chemistry, Engineering, Medical Analysis and Medicine. It is worth mentioning that the participants belong to different social and economic backgrounds. Their ages range between 18 and 22. The sample of the study was determined based on Sekaran and Bougie (2013).

### 3.3. Instrument

The instrument employed in this study is The Survey of Reading Strategies (SORS) by Mokhtari and Sheory (2002) (See Appendix A). This questionnaire consists of thirty items divided into three subscales: global (represented by 13 items), support strategies (represented by 9 items) and problem solving strategies (represented by 8 items). As the researcher's colleagues recommended, there was no need for the questionnaire to be translated into Arabic since the language used in it is clear and simple. The SORS allows researchers to measure three sub-categories: Global Reading Strategies, Problem-Solving Reading Strategies, and Support Reading Strategies. Global Reading Strategies highlight how learners monitor their reading. Problem Solving Strategies depict how students beat the difficulties they face, while the Support Reading Strategies focus on the techniques EFL readers rely on when help is needed. After conducting a pilot study, the Cronbach Alpha was applied to guarantee the instrument reliability which mounted to (88.8) as a whole. For more clarity, the global reading strategies' reliability was (85.33), the problem solving reading strategies reliability was (89.2), and the reliability of the support strategies was (77.7).

### 3.4. Data Collection Procedure and Data Analysis

The lecturers at the Department of English Language and Literature at Al-Salt Faculty for Humanities were kind enough to administer the survey by asking the volunteers to complete the questionnaire in a process that took 15 minutes. Almost all the participants completed the survey. The researcher used Cronbach Alpha to measure the stability of the measuring tool which is excellent being higher than the acceptable 60%. (Miller, 2013).

The Statistical Package for the Social Science (SPSS.ver20) was used for analyzing the data and testing of study questions.

### 3.5. Definitions of Terms

To guarantee clarity, it is important to provide definitions of the important terms used in this study (Mokhtari and Sheory 2002).

English as a foreign language or EFL refers to the idea that English is not spoken in the everyday communication of the students' community local, it is neither the first nor a dominating language in their society.

Reading strategies are techniques that students use to increase their comprehension and tackle any problems they face when reading English passages.

Metacognitive strategies refer to carefully planned techniques which learners employ to monitor or manage their reading. The readers intentionally resort to these strategies to evaluate their reading process.

Support strategies refer to strategies intended to aid the reader in comprehending the text during reading. These 9-item strategies include underlining key words, highlighting important points and paying attention to words in italic and bold print. They also mean the use of reference materials from the text such as notes in the margins, summarizing, or simple underlining of important information.

Global Reading Strategies possess 13 items and are those purposeful, intently planned techniques by which learners are taught how to organize or manage their reading. It refers to pre-reading activities such as having a purpose in mind before reading and thinking about what one already knows about the material before reading.

Problem-Solving Strategies include techniques that readers use when they face difficulties while reading an English text so that they can avoid failure and are represented by 8 items. Examples of these strategies are rereading hard to understand text and adapting one's reading rate to the difficulty level of what they're reading.

## 4. Results :

### ***Q1: How frequently do EFL students at Al-Balqa Applied University use metacognitive reading strategies ?***

In order to answer the first research question, descriptive statistics were used. The descriptive statistics included mean (M) and standard deviations (S.D) of each strategy use, the overall use, and the use of three strategy categories. The average score of the overall use of the metacognitive reading strategies of the EFL students at Al-Balqa Applied University was (3.6023) with (S.D =1.3189), which indicates that the use of the overall strategies was high. By way of clarification, according to Oxford and Burry- Stock (1995), Learning strategy usage scores averaging (3.5-5.0) are categorized as High, (2.5-3.4) are designated moderate strategy use; and

scores ranging from (1.0-2.4) are often assigned as low strategy utilization.

**Table (1): Means and Standard Deviation of the EFL students at Al-Balqa Applied University use of metacognitive reading strategies**

Category	Questions	Mean	Std. Deviation	Level	N
Global	1-I have a purpose in mind when I read.	3.6860	1.2296	High	86
Support	2-I take notes while reading to help me understand what I read.	3.4070	1.2212	Moderate	86
Global	3- I think about what I know to help me understand what I read.	3.6163	1.1290	High	86
Global	4- I take an overall view of the text to see what it is about before reading it .	3.4767	1.2149	Moderate	86
Support	5-When text becomes difficult, I read aloud to help me understand what I read.	3.2606	1.3536	Moderate	86
Global	6-I think about whether the content of the text fits my reading purpose.	3.6163	1.2757	High	86
Problem solving	7-I read slowly and carefully to make sure I understand what I am reading.	4.1977	.9433	High	86
Global	8- I review the text first by noting its characteristics like length and organization.	3.2442	1.3279	Moderate	86
Problem solving	9-I try to get back on track when I lose concentration .	3.9651	1.0895	High	86
Support	10-I underline or circle information in the text to help me remember it .	4.1047	1.0293	High	86
Support	11-I adjust my reading speed according to what I am reading.	3.6512	1.0929	High	86
Problem solving	12-When reading, I decide what to read closely and what to ignore.	3.2093	1.1794	Moderate	86
Global	13- I use reference materials (e.g, dictionary ) to help me understand what I read .	3.6047	1.2393	High	86
Problem solving	14- When text becomes difficult, I pay closer attention to what I am reading.	3.9767	1.0735	High	86
Global	15- I use tables, figures, and pictures in text to increase my understanding .	3.1860	1.2416	Moderate	86
Problem solving	16- I stop from time to time and think about what I am reading.	3.4535	1.1848	Moderate	86
Global	17- I use context clues to help me better understand what I am reading.	3.7791	1.0561	High	86
Problem solving	19- I try to picture or visualize information to help remember what I read .	3.7093	1.1153	Moderate	86
Global	20- I use typographical features like bold face and italics to identify key information .	3.6860	1.1195	Moderate	86
Global	21- I check my understanding when I come across new information.	3.5930	5.7423	High	86
Support	22- I go back and forth in the text to find relationship among ideas in it .	3.2907	1.3272	Moderate	86
Global	23- I check my understanding when I come across new information.	3.7209	1.0809	High	86
Global	24- I try to guess what the content of the text is about when read .	3.5233	1.2530	High	86
Problem solving	25- When text becomes difficult, I re-read it to increase my understanding .	4.0349	.9634	High	86
Global	27- I check to see if my guesses about the text are right or wrong..	3.3837	1.1598	Moderate	86
Problem solving	28- When I read, I guess the meaning of unknown words or phrases.	3.4767	1.0259	Moderate	86
Support	29- When reading I translate from English into my native language.	3.5581	1.2797	High	86
Support	30- When reading, I think about information in both English and my mother tongue .	3.5116	1.3612	High	86
<b>Total</b>		<b>3.6023</b>	<b>1.3189</b>	<b>High</b>	<b>86</b>

Table (1) shows that the mean average for the answers concerning the EFL students at Al-Balqa Applied University use of metacognitive reading strategies was "High" ( M =3.6023, S.D. =1.3189). As shown

in Table (1), there were positive attitudes towards the above questionnaire items because their mean was greater than the mean of the scale (3), but in a different percentage. The item which gained the highest mean in this strategy questionnaire is strategy number (7) "I read slowly and carefully to make sure I understand what I am reading" (M =4.1977, S.D. =0.9433). The lowest item (M =3.2606) was item number (1) "when text becomes difficult, I read aloud to help me understand what I read."

**Q2:What metacognitive reading strategies do Al-Balqa Applied University EFL students employ most commonly?**

In order to identify the answer to this question, the study extracted the arithmetic mean and the standard deviation of the three strategies (Global, Problem Solving and Support), and the arithmetic mean and the standard deviation of each paragraph can be presented as follows:

**The First Sub-category: Global Reading Comprehension Strategies**

**Table (2): Means and Standard Deviation of the Global strategies**

Questions	Mean	Std. Deviation	level	N
1-I have a purpose in mind when I read.	3.6860	1.2296	High	86
3-I think about what I know to help me understand what I read.	3.6163	1.1290	High	86
4- I take an overall view of the text to see what it is about before reading it .	3.4767	1.2149	Moderate	86
6- I think about whether the content of the text fits my reading purpose.	3.6163	1.2757	High	86
8- I review the text first by noting its characteristics like length and organization.	3.2442	1.3279	Moderate	86
12-When reading, I decide what to read closely and what to ignore.	3.2093	1.1794	Moderate	86
15- I use tables, figures, and pictures in text to increase my understanding .	3.1860	1.2416	Moderate	86
17- I use context clues to help me better understand what I am reading.	3.7791	1.0561	High	86
20- I use typographical features like bold face and italics to identify key information .	3.6860	1.1195	Moderate	86
21-I check my understanding when I come across new information.	3.5930	5.7423	High	86
23- I check my understanding when I come across new information.	3.7209	1.0809	High	86
24- I try to guess what the content of the text is about when read .	3.5233	1.2530	High	86
27- I check to see if my guesses about the text are right or wrong..	3.3837	1.1598	Moderate	86
<b>Total</b>	<b>3.5169</b>	<b>1.5392</b>	<b>High</b>	<b>86</b>

Table (2) shows that the mean average for the answers about the Global strategy category was "High" (M =3.5169, S.D.15392). As Shown in Table (2), there were positive attitudes toward the above items because their mean were greater than the mean of the scale (3), but with a different percentage. The item which gained the highest mean in this strategy is number (23) (M =3.7209, S.D. = 1.0809) " I check my understanding when I come across new information." The lowest item was (27) " I check to see if my guesses about the text are right or wrong" (M= 3.3837).

**The Second Strategy: Problem solving**

Table (3) shows the mean, standard deviation and the degree of approval for each item in this subcategory.

**Table (3): Means and Standard Deviation of Second subcategory (Problem solving)**

Questions	Mean	Stdandard Deviation	level
7- I read slowly and carefully to make sure I understand what I am reading.	4.1977	.9433	High
9- I try to get back on track when I lose concentration .	3.9651	1.0895	High
11-I adjust my reading speed according to what I am reading	3.6512	1.0929	High
14- When text becomes difficult, I pay closer attention to what I am reading.	3.9767	1.0735	High
16- I stop from time to time and think about what I am reading.	3.4535	1.1848	Moderate
19- I try to picture or visualize information to help remember what I read .	3.7093	1.1153	Moderate
25-When text becomes difficult, I re-read it to increase my understanding .	4.0349	.9634	High
28- When I read, I guess the meaning of unknown words or phrases.	3.4767	1.0259	Moderate
<b>Total</b>	<b>3.8081</b>	<b>1.0610</b>	<b>High</b>

Table (3) shows that the mean average for the answers of the respondents concerning the second sub-strategy, Problem solving, proved to be high (M =3.8081, S.D. =1.0610). As Shown in Table (3), there were positive attitudes toward the above items because their mean was greater than the mean of the scale (3), but with a different percentage. The item which is the highest in this strategy is number (7) " I read slowly and carefully to make sure I understand what I am reading" (M =4.1977, S.D.= 0.9433). The item that was the least preferred by the participants was item 16 "I stop from time to time and think about what I am reading" since it gained the lowest level and reached (3.4535).

**The Third Subcategory: Support Reading Strategy**

Table (4) shows the mean, standard deviation and the degree of approval for each paragraph of this strategy.

**Table (4): Means and Standard Deviation of the Support reading strategies:**

Questions	Mean	Standard Deviation	level	N
2- I take notes while reading to help me understand what I read.	3.4070	1.2212	Moderate	86
5-When text becomes difficult, I read aloud to help me understand what I read.	3.2606	1.3536	Moderate	86
10- I underline or circle information in the text to help me remember it .	4.1047	1.0293	High	86
13- I use reference materials (e.g, dictionary ) to help me understand what I read .	3.6047	1.2393	High	86
18- I paraphrase( restate ideas in my own words) to better understand what read .	3.6977	1.1279	Moderate	86
26- I ask myself questions I like to have answered in the text.	3.4186	1.1320	Moderate	86
29- When reading, I translate from English into my native language.	3.5581	1.2797	High	86
30- When reading, I think about information in both English and my mother tongue .	3.5116	1.3612	High	86
<b>Total</b>	<b>3.5393</b>	<b>1.2301</b>	<b>High</b>	<b>86</b>

From the this table it can be seen that the Mean average for the answers of the respondents about the Support strategies was high( M =3.5393, S.D.=1.2301). There were positive attitudes towards the above items because their mean was greater than the mean of the scale (3). Item number (10) " I underline or circle information in the text to help me remember it" had the highest mean in this sub-category. (M =4.1047, S.D.=1.0293). The means that had the lowest degrees (3.2606) is item number (5) "When text becomes difficult, I read aloud to help me understand what I read."

Through the arithmetic mean of the three strategies, Table (5) illustrates the strategies that are most commonly according to the highest arithmetic mean, which is as follows:



**Table (5): Use of each strategy category**

Categories of strategies	Mean	Standard deviation (S.D)	Level
<b>The First Sub-category: Global Strategies</b>	3.5169	1.5392	High
<b>The Second Sub-category: Problem Solving Strategies</b>	3.8081	1.0610	High
<b>The Third Subcategory: Support</b>	3.5393	1.2301	High

As show in table (5), the metacognitive reading strategies Al-Balqa Applied University EFL students employ most commonly were the problem solving strategies (M = 3.8081, S.D.=1.0610), then the Support reading strategies (M =3.5393, S.D.=1.2301). The least favored subcategory was the global reading strategies ( M =3.5169, S.D. = 1.5392).

## 5. Discussion

The first research question deals with how frequently EFL learners at Al-Balqa Applied University use metacognitive reading strategies. The findings illustrated that the participants were high frequency strategy users of the overall strategy groups. The researcher finds these results significant because the educational system at Jordanian schools adopts the traditional way of teaching which does not introduce these strategies to the teachers or their students. These results, however, were consistent with previous studies dealing with this topic. Mahasneh, Alkhawaldeh and Almadanin (2016) found that Jordanian students were high users of the metacognitive reading strategies. Palestinian students at Berzeit University were found by Jom'a (2013) to be high frequency users of these strategies. Martinez (2008), Magogwe (2013) and Akkarararitwutthikun and Sappan (2013) identified their students as high frequency metacognitive reading strategy users. These findings were received further support from Panchu, Bahuleyan, Seethalaksmi and Thomas (2016), Malcolm (2009), and Soharni (2017). Some researchers revealed that their participants were moderate users of these strategies, however. Tavakoli (2014), Jafari and Shokrpour (2012), Kocaman and Beskadesler (2016) and Hoang (2016) found that their participants moderately utilize these strategies. T studies by Tabtabaei and Assari (2011) and Zarrabi (2015) are part of this stream.

The second question in this study deals with the most commonly used metacognitive reading strategies by Al-Balqa Applied University EFL students. The most frequently employed sub-category was problem solving (M = 3.8081, S.D.= 1.0610 ), followed by the support strategies (M= 3.5393, S.D. = 1.2301 ), while the global strategies proved to be the least favored by the participants (M= 3.5169, S.D. = 1.5392). The present results are also found worth extra attention since while school teaching in Jordan still employs the traditional grammar-translation method of teaching, the participants seem to avoid strategies or items that are coloured by this approach like translating from English to Arabic, circling or underlining certain words or paying attention to the typographical features of the text. Despite these points, these findings concerning the most frequently used strategy were consistent with Mahasneh, Alkhawaldeh and Almadanin (2016), Jom'a (2013), Marteniz (2008), Jafari and Shokrpour (2012), Magogwe (2013) and Shikano (2013). Studies that do not support these findings do also exist. Tavakoli's (2014) and Alsheikh and Mokhtari's (2011) participants favored the support reading strategies most. Kocaman and Beskadesler (2016), Akkarararitwutthikun and Sappan (2013) and Hoang (2016) revealed that their participants were relying on global reading strategies most.

## 6. Pedagogical Recommendations

The more research is carried out in the field of metacognitive reading strategies, the more we can feel the need to intensify our understanding of this area. Understanding what metacognitive reading strategies our EFL learners employ should go beyond the theoretical ink and paper borders to affect the procedures and teaching strategies that actually take place in any EFL reading class in Jordan. Jordanian school students should be given enough training concerning how to employ the metacognitive reading strategies. Curricula planners should take the findings of these studies into consideration and check that while certain strategies need to be strengthened like note - taking, depending on previous, using reference materials as dictionaries, using tables and figures and paraphrasing, knowledge of others like "When reading, I translate from English into my native language" need to be avoided.

EFL learners should be encouraged to rely more on problem solving strategies because they can be developed into skills that can live with them.

## 7. Recommendations for Future Research

In the light of the above mentioned results, the researcher would propose a number of recommendations for future research, namely:

1. The need to conduct more research about the subject of this study.
2. Future studies need to employ pre-arranged meetings with the participants to allow them explain their choices of certain strategies.

3. Teachers' awareness and opinions of these strategies need serious research efforts.

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**Appendix**  
**Survey of Reading Strategies (SORS)**

Phrase	I never or almost never (1)	Only occasionally (2)	I sometimes (3)	I usually (4)	Always or almost always (5)
1-I have a purpose in mind when I read.					
2-i take notes while reading to help me understand what I read.					
3- I think about what I know to help me understand what I read.					
4- I take an overall view of the text to see what it is about before reading it .					
5-when text becomes difficult, I read aloud to help me understand what I read.					
6-i think about whether the content of the text fits my reading purpose.					
7-I read slowly and carefully to make sure I understand what I am reading.					
8-i review the text first by noting its characteristics like length and organization.					
9-i try to get back on track when I lose concentration .					
10-i underline or circle information in the text to help me remember it .					
11-I adjust my reading speed according to what I am reading.					
12-when reading, I decide what to read closely and what to ignore.					

<b>Phrase</b>	<b>I never or almost never (1)</b>	<b>Only occasionally (2)</b>	<b>I sometimes (3)</b>	<b>I usually (4)</b>	<b>Always or almost always (5)</b>
13-I use reference materials (e.g, dictionary ) to help me understand what I read .					
14-when text becomes difficult, I pay closer attention to what I am reading.					
15-i use tables, figures, and pictures in text to increase my understanding .					
16-i stop from time to time and think about what I am reading.					
17-i use context clues to help me better understand what I am reading.					
18-i paraphrase( restate ideas in my own words) to better understand what read .					
19-i try to picture or visualize information to help remember what I read .					
20-i use typographical features like bold face and italics to identify key information .					
21-i check my understanding when I come across new information.					
22-i go back and forth in the text to find relationship among ideas in it.					
23-i check my understanding when I come across new information.					
24-i try to guess what the content of the text is about when read .					
25-When text becomes difficult, I re-read it to increase my understanding .					
26-i ask myself questions I like to have answered in the text.					
27-i check to see if my guesses about the text are right or wrong..					
28-when I read, I guess the meaning of unknown words or phrases.					
29-when reading I translate from English into my native language.					
30-When reading, I think about information in both English and my mother tongue .					