



EFL Learners Metacognitive Awareness of Reading Strategies

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Reading, a literacy skill, is of great importance to all educational systems. Even in tertiary education, many EFL learners have trouble in reading academic texts in English, as they are often found to be using ineffective reading strategies. A review of relevant literature provides insights into a range of issues relating to the teaching of reading and the development of effective EFL reading strategies including metacognitive awareness of reading strategies. The present study investigated how frequently EFL learners studying in higher education institutions think they use selected EFL reading strategies. The study used MARSII, the Metacognitive Awareness of Reading Strategies Inventory, a think-aloud instrument, on a sample of 74 tertiary level EFL learners for eliciting the subjects' self-reports on their use of selected reading strategies on a Likert scale of 1 (low) to 5 (high). The findings reported that there is a high use of all the three types of reading strategies by Elementary, Intermediate and Advanced Level EFL students in Oman. This study shows that there are no significant differences in the use of different types of reading strategies among learners of various levels.

Keywords: reading in a foreign language, EFL reading strategies, metacognitive awareness, reading, EFL

INTRODUCTION

Reading is a literacy skill; and hence, it is of great importance to every educational setting. ESL/EFL teachers are often required to provide reading instructions to learners who struggle to read academic texts in English in tertiary education. The problem assumes a critical stage especially when English is the medium of instruction at the tertiary level. It is matter of serious concern that the school leavers who desire to pursue higher education are found ill-equipped with the required reading strategies. Therefore, school teachers are often blamed for the lack of reading skills of those students who are unable to cope with the academic demands of higher education. Even at school level, there are also reports of how higher grade students find it difficult to read even lower grade texts in English.

Many of the ESL/EFL learners also develop ineffective reading strategies, such as mouthing of words while reading (i.e., vocalization and sub-vocalization), tracing the

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words letter by letter by moving the fingers over the text (i.e., finger pointing), moving the eyes (and the head) from left to right while reading in English, getting stuck with and unable to move beyond new/unfamiliar vocabulary, and reading aloud instead of reading silently to increase reading speed and improve comprehension. Such problems in reading efficiency are often identified when learners have to go through a general foundation programme in higher education institutions in the Sultanate of Oman.

Purpose of the Study

The present study aims to investigate how frequently Omani EFL tertiary level students think they use selected EFL reading strategies and to report the findings of the survey research conducted with students of the general foundation programme in English at a higher education institution in the Sultanate of Oman.

Study Questions

The present study aims to find answers to the following research questions:

1. What are the most frequently used reading strategies of Omani EFL learners?
2. Are there significant differences in EFL learners' use of selected reading strategies in terms of the learners' gender?
3. Are there any significant differences in EFL learners' use of selected reading strategies in terms of learners' English proficiency level?

Review of Literature

The review of literature provides a critical analysis of views on reading and reading strategies derived from theoretical and empirical literature/works on a range of topics and issues including reading as a set of skills and reading strategies, the development of metacognitive awareness in the individual reader, and approaches to the teaching of reading and reading strategies.

Second and foreign language reading research points to two different views of second/foreign language reading: *reader-based* and *text-based*. Several research questions have arisen in a number of reading studies within the context of each of these views. The *reader-based* view raises questions relating to the role of reader schemata in reading comprehension, the effectiveness of other reading strategies and their teachability, similarities and differences between first and second language reading processes, the transferability of L1 reading skills and strategies to L2 and foreign language reading, and the impact of readers' control of language on their reading proficiency. Questions raised by the *text-based* view relate to issues such as the importance and role of text type in reading comprehension, the relative role of vocabulary as a determining factor in reading comprehension, the relative importance for the reader to control syntax or semantics, the relation between cohesion and coherence, and comprehension, and so on (Barnett, 1989, pp.38-39).

Research shows that literate adolescent and adult foreign and second language learners' minds are not *tabula rasa*; these learners "bring to their reading a certain level of cognitive skill development, more or less well-formed schemata about the world and

about text structure, and some first language reading skill” (*ibid.*, p.66). Since these learners already have useful skills as first language readers, it is assumed that these learners can and will improve their reading comprehension in second or foreign language by using appropriate strategies acquired as first language readers. In most of the reading studies, “the term *strategy* refers to the mental operations involved when readers purposefully approach a text to make sense of what they read. These may be either conscious techniques controlled by the reader or unconscious processes applied automatically. Both good (successful) and poor (unsuccessful) strategies exist, yet the term *strategy* as used in pedagogical materials often implies those which are successful” (*op cit.*)

Reading strategies are in fact problem-solving strategies employed by readers to cope with reading texts. There is lack of consensus in reading research literature about exactly what constitutes reading strategies. Nevertheless, complete catalogues of types of second/foreign language reading strategies have been proposed by some researchers based on their experimental studies (Hosenfeld, 1977, 1979, 1984; Block, 1986; Sarig, 1987). A number of effective reading strategies are listed in the *Interviewer Guide for Reading Strategies* offered by Hosenfeld et al. (1981). This list of observed reading strategies is often recommended for developing learners’ reading strategies and for encouraging them to use effective strategies.

Based on an analysis of think-aloud protocols of university-level students (six ESL and three native-English-speaking), Block (1986) categorizes their reading strategies as *general* (i.e., comprehension-gathering and comprehension-monitoring) and *local* (i.e., attempts to understand specific linguistic units). Drawing insights from research on writing, Block also defines two different modes in readers’ strategies, viz. *extensive* (readers focusing on understanding the writer’s ideas) and *reflexive* (readers relating ideas in the text to themselves, affectively and personally).

Holding the view that the second language reading process is the interlingual transfer of reading skills from the readers’ native language and based on the foreign language learners’ think-aloud data, Sarig (1987) classifies their reading strategies (or moves) into four types (including both comprehension promoting and deterring moves), as follows:

1. Technical-aid moves generally useful for decoding at a local level: skimming, scanning, skipping, writing key elements in the text, marking parts of text for different purposes, summarizing paragraphs in the margin, and using glossary.
2. Clarification and simplification moves showing reader’s intention to clarify and/or simplify text utterances: substitutions, paraphrases, circumlocutions, and synonyms.
3. Coherence-detecting moves demonstrating the reader’s intention to produce coherence from the text: effective use of content and formal schemata to predict forthcoming text; identification of people in the text and their views or actions; cumulative decoding of text meaning; relying on summaries given in the text; and identification of text focus.
4. Monitoring moves displaying active monitoring of text processing, whether metacognitively conscious or not: conscious change of planning and carrying out the

tasks; deserting a hopeless utterance (e.g., “I don’t understand that, so I’ll read on”); flexibility of reading rate; correction of mistakes; and ongoing self-evaluation.

Sarig’s categorization is seen as the first significant attempt to group learners’ reading strategies into types (Dubin, 1987). It should, however, be noted that strategies are frequently used in combination with each other (Kern, 1988). Similar inventories of strategies have been proposed by other researchers – e.g., for first language reading (Olshavsky, 1977-78) *and* for second language reading (Groebel, 1981; Knight, Padron & Waxman, 1985; Padron & Waxman, 1988; Kern, 1988).

Researchers have also examined different aspects of strategy use in second and foreign language reading, such as the following (Bennett, 1989, p.70):

1. Descriptions of strategies naturally used by second or foreign language readers;
2. The transfer of first language strategies to second or foreign language reading;
3. The actual effectiveness of strategies generally deemed “successful”;
4. Learners’ thoughts about what they do when they read (their metacognitive perception);
5. The relationship between readers’ metacognition and their comprehension and actual strategy use; and
6. The usefulness of training students to use productive strategies.

Much of this research has used mentalistic data, i.e. information obtained from learners’ verbalizing or analysis of their thought processes as they perform various tasks assigned. These are often different from the strategies their teachers assume they are using (Hosenfeld, 1977a). From her original study on reading from data reported by forty adolescent foreign language students, Hosenfeld (1977b) constructed reading maps providing graphic, visual portrayals of individual students’ reading strategies and found distinct differences between the strategies used by successful and unsuccessful readers. For example,

Successful readers . . .

- Kept the meaning of the passage in mind while reading;
- Read (translated) in broad phrases;
- Skipped words they saw as unimportant to total phrase meaning; and
- Had a positive self-concept as readers.

Unsuccessful readers . . .

- Lost the meaning of sentences as soon as they decoded them;
- Read (translated) in short phrases;
- Seldom skipped any words as unimportant but rather viewed them all as “equal”; and
- Had a negative self-concept as readers.

A multitude of reading-related variables involving characteristics of the reader, task and context have been mentioned and discussed (Oxford, 1989; Mokhtary&Shorey, 2008). While some cognitive aspects of reading may be defined as universal, reading is different in different languages and for readers with different language backgrounds. It is also multi-componential and multi-layered (Koda, 2007).

‘Skill’ is distinguished from ‘strategy’ (Afflerbach et al., 2008). Reading skills are “automatic actions that result in the decoding and comprehending of texts with speed, efficiency and fluency, usually without the reader’s awareness of the components or controls involved”, whereas reading strategies are “deliberate, goal-directed attempts to control and modify the reader’s efforts to decode texts, understand words and construct meaning out of texts” (p.15). The differences between strategies and skills have been summarized by Manoli and Papadopoulou (2012, p.819) as shown below:

Strategies	Skills
Deliberate	Automatic
Conscious	Unconscious
Mindful/Effortful	Effortless
Goal/problem-oriented	Goal/problem-free
Reader-oriented	Text-oriented

It is contended that with enough practice, a consciously deployed reading strategy can become an automatically employed reading skill. This supports a rationale for the focus on metacognitive awareness of reading processes, but raises questions like, “when a strategy becomes a skill, does it become unconscious and therefore un-reportable?” and “would skilled readers conceivably not report using strategies which they had already mastered to automatic, unconscious skill level?” (Erler, 2009).

METHOD

Sample

The present study was conducted on 74 students in a public college of technology in Nizwa, in the interior part of the Sultanate of Oman. These students, who had completed grade 12 of secondary education, had been grouped into three levels based on a placement test in English administered to them on enrolment to the higher education institution.

Study Instrument

The data was collected by a questionnaire developed by MARSİ. The questionnaire was checked for validity and reliability before administering it.

MARSİ/SORS were used as data collecting instruments. MARSİ, the ‘Metacognitive Awareness of Reading Strategies Inventory’, elicits self-reports from readers on how frequently they think they use selected reading strategies, and has been used with college/university students. SORS, a ‘Survey of Reading Strategies’, taps self-reported reading strategies of adult readers of academic texts in English. The difference between MARSİ and SORS is the inclusion of translation-related strategies in the latter. Both instruments use a Likert scale of 1 (low) to 5 (high) for reporting the use of each itemized strategy by the respondents. The results obtained purportedly measure the levels of metacognitive awareness of processes involved in reading. This is a think-aloud research procedure for detecting actual strategy use.

The assumption behind eliciting strategies from students is that if teachers know what good strategies learners use, and in the case of MARSİ and SORS do *not* report using

frequently, then those strategies can be taught or practised to improve students' reading proficiency (Oxford, 1989). The MARSIS and SORS lists of reading strategies stem from Pressley and Afflerbach's (1995) taxonomy of L1 reading strategies, with some reference to Oxford's SILL (1990).

The MARSIS/SORS lists are divided into three sub-categories: "global", "problem-solving" and "support". Each of these categories comprises strategies that have been classed differently by other authors and include both cognitive and metacognitive strategies. The findings will provide a framework towards developing "interactionist-constructivist" readers independent of individual differences and differences in contexts.

FINDINGS AND DISCUSSION

Learners Awareness of Reading Metacognitive strategies use by Dimensions

To answer the first question regarding the most frequently used reading strategies of Omani EFL learners, Means and Standard Deviation were calculated. The following Table 1 presents the Means and Standard deviation of the reading strategies according to Dimensions.

Table 1
Reading Strategies According to Dimensions

Type of Reading Strategies	Overall Mean	Std. Deviation (SD)
Global reading strategies	3.3146	5.29360
Problem-solving strategies	3.3630	4.95021
Support reading strategies	3.4815	5.01266

Table 1 shows the high use of various types of reading strategies which obtain very high Means where the *support reading strategies* receive the highest overall mean (3.4815) followed by problem-solving strategies (3.3630) and global reading strategies (3.3146).

Learners' Awareness of Reading Metacognitive strategies use by items within dimensions

To answer the first question regarding the most frequently used reading strategies of Omani EFL learners, Means and Standard Deviation were calculated. The following Table 2 presents the Means and Standard deviation of the reading strategies according to Dimensions.

Table 2
Reading Strategies According to Categories

Category	Reading Strategies	Mean	SD
Global	1.I have a purpose in mind when I read.	3.6081	.97668
Reading	3.I think about what I know to help me understand what I read.	3.5753	1.09186
Strategies	4.I preview the text to see what it's about before reading it.	3.3649	1.04126
	7.I think about whether the content of the text fits my reading purpose.	2.9437	1.09397
	10.I skim the text first by noting characteristics like length and organization.	3.1111	1.13281
	14.I decide what to read closely and what to ignore.	3.3662	1.01755
	17.I use tables, figures, and pictures in the text to increase my understanding.	3.3784	1.09423
	19.I use context clues to help me better understand what I'm reading.	3.3243	1.09929
	22.I use typographical aids like boldface and italics to identify key	3.3243	1.14806

Category	Reading Strategies	Mean	SD
	information.		
	23.I critically analyze and evaluate the information presented in the text.	2.8108	1.00240
	25.I check my understanding when I come across conflicting information.	3.4459	1.02224
	26.I try to guess what the material is about when I read.	3.5541	.93840
	29.I check to see whether my guesses about the text are right or wrong.	3.1081	1.06716
	Total	3.3146	5.29360
Problem-Solving Strategies	8.I read slowly but carefully to be sure I understand what I'm reading.	3.7432	1.30395
	11.I try to get back on track when I lose concentration.	3.1507	1.17463
	13.I adjust my reading speed according to what I'm reading.	3.3919	1.04446
	16. When the text becomes difficult, I pay closer attention to what I'm reading.	3.0676	1.10207
	18.I stop from time to time and think about what I'm reading.	3.2162	1.18519
	21.I try to picture or visualize information to help me remember what I read.	3.3649	1.09262
	27. When the text becomes difficult, I re-read to increase my understanding.	3.3514	1.23235
	30.I try to guess the meaning of unknown words or phrases.	3.5811	1.17049
	Total	3.3630	4.95021
Support Reading Strategies	2. I take notes while reading to help me understand what I read.	3.5000	1.01022
	5. When the text becomes difficult, I read aloud to help me understand what I read.	3.4189	1.05994
	6. I summarize what I read to reflect on important information in the text.	3.4730	1.24111
	9. I discuss what I read with others to check my understanding.	3.3973	1.10227
	12. I underline or circle information in the text to help me remember it.	3.7432	1.26123
	15. I use reference material, such as a dictionary, to help me understand what I read.	3.9041	1.23788
	20. I paraphrase (restate ideas in my own words) to understand better what I read.	3.3243	1.19483
	24. I go back and forth in the text to find relationships among ideas in it.	3.3514	1.02613
	28. I make up questions for myself before I read which I think or hope the text will answer.	3.2297	1.15328
	Total	3.4815	5.01266

With regard to the items in each category, Table 2 shows the differences in the degree of reading strategy use within each of the three categories. In the *global reading strategies* category, the means of the reading strategy use ranged between 2.8 and 3.6. This illustrates that the strategies *learners mostly use* are *items 1* ('I have a purpose in mind when I read' – 3.61), *3* ('I think about what I know to help me understand what I read' – 3.58), and *26* ('I try to guess what the material is about when I read' – 3.56). This finding confirms that of Zhang (2001), namely that high EFL scorers anticipate text content. The *least frequently used* strategies are *items 7* ('I think about whether the content of the text fits my reading purpose' – 2.94), and *23* ('I critically analyse and evaluate the information presented in the text' – 2.81).

With regard to reading strategies in the *problem-solving strategies* category, the means of the items ranged between 3.74 and 3.11, even the lowest being above 3.1. The two items with *the highest means* are *8* ('I read slowly but carefully to be sure I understand what I'm reading' – 3.74), and *30* ('I try to guess the meaning of unknown words or phrases' – 3.58). Monitoring comprehension and guessing meaning from context are again strategies employed by high EFL scorers in Zhang's (2001) study. A study by Ozek and Civelek (2006) also reported advanced learners (i.e., 4th year as against 1st

year students) not using the dictionary for every unknown word but guessing meaning from context. The *lowest means* were received by items 11 ('I try to get back on track when I lose concentration – 3.15), and 27('When the text becomes difficult, I pay closer attention to what I'm reading' – 3.07).

As for the items in the third category, i.e. *Support reading strategies*, the means ranged between 3.22 and 3.90, even the lowest being above 3.2. The highest ranked items were 15('I use reference material, such as a dictionary, to help me understand what I read' – 3.90), and 12 ('I underline or circle information in the text to help me remember it' – 3.74). The findings of this study are found to be in congruent with other studies in that generally there is moderate to high level of reading strategy use by language learners (Martinez, 2008).

Comparing the learners' awareness of reading strategy use according to their gender

To answer the second question regarding the significant differences of learners' awareness of the reading strategy use according to gender, an independent sample T-test was employed. The following table presents the differences between males and females.

Table 3
Independent samples test according to respondents' gender

Type of Strategies	Gender	Mean	SD	t	Sig. (2-tailed)
Problem-Solving Strategies	Male	3.23	.64498	3.153	.002
	Female	3.71	.42267		
Support Reading Strategies	Male	3.44	.59143	1.731	.008
	Female	3.69	.33932		
Global Reading Strategies	Male	3.28	.43447	.911	.366
	Female	3.39	.35471		
Total	Male	3.31	.46931	2.313	.024
	Female	3.56	.22678		

The data in Table 3 shows that, overall, there are significant differences between males and females in respect of reading strategy use *in favour of females* at the 0.05 level of significance with the means of 3.56 and 3.31 for females and males respectively and significance level ($P = .024$). With regard to the different types of strategies, there are significant differences between males and females in their use of *both problem-solving strategies and support reading strategies in favor of females* with the means for females and males being 3.69 and 3.44 respectively for the former, and 3.71 and 3.23 respectively for the latter, the significance level in both categories being $P = .002$ and $P = .008$ respectively. There are, however, no significant differences between females and males in their use of global reading strategies, both revealing high use of this type of strategies by both females and males with the means of 3.39 and 3.28 respectively. In a study by Ozek and Civelek (2006), too, female students were found to be better than males in the use of certain strategies in the post-reading phase (e.g., re-reading the text to remedy comprehension failures and classifying words according to their meaning).

Comparing the learners' awareness of reading strategy use according to their proficiency level

To answer the third question regarding the significant differences of learners' awareness of the reading strategy use according to their proficiency level, One Way analysis of variance ANOVA was used and Chaffee test was employed. The following table presents the differences between the learners awareness of strategy use.

Table 4
One-way ANOVA according to level

		Sum of Squares	df	Mean Square	F	Sig.
Support Reading Strategies	Between Groups	.519	2	.259	.827	.442
	Within Groups	21.337	68	.314		
	Total	21.856	70			
Global Reading Strategies	Between Groups	.514	2	.257	1.554	.219
	Within Groups	10.424	63	.165		
	Total	10.939	65			
Problem-Solving Strategies	Between Groups	1.294	2	.647	1.699	.190
	Within Groups	26.273	69	.381		
	Total	27.567	71			

Table 5
One-way ANOVA: means and standard deviations according to level

		N	Mean	SD	F	Sig.
Support Reading Strategies	Elementary	26	3.37	.46906	.827	.442
	Intermediate	20	3.51	.54370		
	Advanced	25	3.56	.65257		
	Total	71	3.48	.55878		
Global Reading Strategies	Elementary	23	3.28	.41061	1.554	.219
	Intermediate	20	3.22	.35611		
	Advanced	23	3.43	.44239		
	Total	66	3.31	.41023		
Problem-Solving Strategies	Elementary	27	3.19	.59482	1.699	.190
	Intermediate	20	3.46	.58504		
	Advanced	25	3.47	.66368		
	Total	72	3.36	.62312		

The results reported in Tables 4 and 5 that there were no significant differences among learners of different language levels in using different reading strategies in the three categories. However, regardless of the lack of significant differences, the data shows a generally high use of all the strategies by students of different levels. The results also invite a number of interesting observations. Firstly, in all three categories, the advanced level students use the strategies more than those of the elementary and intermediate levels. Secondly, there is higher use of the support reading strategies and problem-solving strategies by intermediate level learners than those of the elementary level, whereas the elementary level learners use the global reading strategies more than the intermediate level students. These suggest that, generally speaking, the higher the students' language level, the more they use support reading strategies and problem-

solving strategies. The findings are congruent with other related studies which show differences in learners' use of Meta-cognitive strategies (O'Malley, Chamot, Stwener-Manzares, Kupperand Russo 1985;, Salataci and Akyel2002; Malcom, 2009; Sheorey and Babocazki 2008).

CONCLUSION

Generally, there is a high use of all three types of reading strategies by the EFL students in Oman. This suggests high awareness and willingness to use different types of reading strategies among learners. It also means that learners use a variety of strategies equally irrespective of their levels (i.e., Elementary, Intermediate Advanced). This shows clearly that there are no significant differences in the use of different types of reading strategies among learners of various levels.

However, there are significant differences in the use of two types of reading strategies (i.e., problem-solving strategies and support reading strategies) attributed to learners' gender in favour of females, but there is no significant difference between the two groups with regard to global reading strategies. This indicates that females are keener in using various types of reading strategies than their male counterparts.

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Appendix**Reading Strategies Questionnaire**

Name of Institution: _____

Student's Gender: Male Female Level of English: _____**Directions:** Listed below are statements about what people do when they read academic or subject related materials such as textbooks or library books.

Five numbers follow each statement (1, 2, 3, 4, 5), and each number means the following:

- 1 means "I **never or almost never** do this."
- 2 means "I do this **only occasionally**."
- 3 means "I **sometimes** do this" (50% of the time).
- 4 means "I **usually** do this."
- 5 means "I **always or almost always** do this."

After reading each statement, **circle the number** (1, 2, 3, 4, or 5) that applies to you using the scale provided. Please note that there are no right or wrong answers to the statements in this inventory.

STRATEGY						
1	I have a purpose in mind when I read.	1	2	3	4	5
2	I take notes while reading to help me understand what I read.	1	2	3	4	5
3	I think about what I know to help me understand what I read.	1	2	3	4	5
4	I preview the text to see what it's about before reading it.	1	2	3	4	5
5	When the text becomes difficult, I read aloud to help me understand what I read.	1	2	3	4	5
6	I summarize what I read to reflect on important information in the text.	1	2	3	4	5
7	I think about whether the content of the text fits my reading purpose.	1	2	3	4	5
8	I read slowly but carefully to be sure I understand what I'm reading.	1	2	3	4	5
9	I discuss what I read with others to check my understanding.	1	2	3	4	5
10	I skim the text first by noting characteristics like length and organization.	1	2	3	4	5
11	I try to get back on track when I lose concentration.	1	2	3	4	5
12	I underline or circle information in the text to help me remember it.	1	2	3	4	5
13	I adjust my reading speed according to what I'm reading.	1	2	3	4	5
14	I decide what to read closely and what to ignore.	1	2	3	4	5
15	I use reference material, such as a dictionary, to help me understand what I read.	1	2	3	4	5
16	When the text becomes difficult, I pay closer attention to what I'm reading.	1	2	3	4	5
17	I use tables, figures, and pictures in the text to increase my understanding.	1	2	3	4	5
18	I stop from time to time and think about what I'm reading.	1	2	3	4	5
19	I use context clues to help me better understand what I'm reading.	1	2	3	4	5
20	I paraphrase (restate ideas in my own words) to understand better what I read.	1	2	3	4	5
21	I try to picture or visualize information to help me remember what I read.	1	2	3	4	5
22	I use typographical aids like boldface and italics to identify key information.	1	2	3	4	5
23	I critically analyze and evaluate the information presented in the text.	1	2	3	4	5
24	I go back and forth in the text to find relationships among ideas in it.	1	2	3	4	5
25	I check my understanding when I come across conflicting information.	1	2	3	4	5
26	I try to guess what the material is about when I read.	1	2	3	4	5
27	When the text becomes difficult, I re-read to increase my understanding.	1	2	3	4	5
28	I make up questions for myself before I read which I think or hope the text will answer	1	2	3	4	5
29	I check to see whether my guesses about the text are right or wrong.	1	2	3	4	5
30	I try to guess the meaning of unknown words or phrases.	1	2	3	4	5