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Metacognitive awareness of reading strategy use in Arabic as a second language

Ahmad Alhaqbani & Mehdi Riazi
Macquarie University
Australia

Abstract

This paper reports a study that investigated university students' awareness of their reading strategy use when they read Arabic academic texts. One hundred and twenty-two undergraduate L2 Arabic students mostly from Africa and Asia completed a 30-item survey of reading strategies. Results indicated that these students perceived problem-solving reading strategies to be more useful than global and support strategies. Moreover, a statistically significant relationship was found between participants' self-rated Arabic reading ability and their overall strategy use ($r = 0.233$), problem-solving strategies ($r = 0.236$), and global strategies ($r = 0.239$). Finally, it was found that African background students reported more global strategy use than Asian background students, and junior and senior students reported consistently higher strategy use in all the three strategy categories compared to the first and second year students. Findings are discussed in light of the reading strategy knowledge base as well as the theoretical and practical implications.

Keywords: reading strategies; metacognitive awareness of reading strategies; Arabic as a second language; reading in Arabic; Arabic reading strategies

There is a growing concern among both academics and teachers of Arabic that second language (L2) learners of Arabic need better academic preparation before they commence their undergraduate studies at Arabic universities (Alhaqbani, 2008; Alosaili, 2004). Generally, the current approach to teaching Arabic, which usually extends to teaching Arabic as L2, considers language learning as learning a subject matter rather than developing a language skill. Approaches to language teaching as a subject matter focus more on the product, with greater emphasis on the acquisition of vocabulary and grammatical structures and rules than on the process, with an aim of developing communication skills. The implication of this trend for teaching reading in Arabic has been that in spite of the tendency among practitioners towards a more communicative approach, the focus in teaching reading in Arabic is still on reading accuracy, acquisition of vocabulary, and memorization of words and language rules, representing a grammar-translation method. A step towards a change in the current approaches of teaching

Arabic is to highlight the importance of language learning and language use strategies among teachers and learners of Arabic.

It has to be noted that several studies raised some concern about native Arabic students' surface understanding of Islamic texts and introduce the utilization of metacognition as a key to promote their reading comprehension and autonomy (Al-Khateeb, 2011; Al-Khateeb & Idrees, 2010). This problem becomes more critical in the context of L2 due to the fact that many learners of Arabic are learning to seek further knowledge of Islam and be able to understand the Islamic literature. This study, therefore, might shed some light on how L2 learners of Arabic read Islamic texts and their level of metacognitive awareness, as most of them are enrolled in the Department of Islamic Studies.

Since reading is considered the most important skill in academic contexts (Carrell, 1988; Carrell, Devine, & Eskey, 1988, p. 1; Grabe, 1991, p. 375) and reading strategies are crucial for efficient comprehension (Carrell, 1988, 1998), it is imperative to prepare L2 Arabic learners at Arabic universities to become competent readers by raising their awareness of reading strategies, with the hope that such awareness will result in more effective use of these strategies. This is particularly important given the fact that the Arabic writing system is considered an obstacle for non-native Arabic readers, particularly those for whom their first language (L1) writing system is different from the Arabic writing system (Hansen, 2008, 2010). To tackle this problem, identifying what reading strategies current university students are using and examining their metacognitive awareness should be, as suggested (Carrell, 1989), the first step toward developing a concrete action plan for improving the teaching of reading to learners of Arabic as an L2. Such an exploration could increase our understanding of the most frequent reading strategies that Arabic as L2 students use while reading academic texts and their level of metacognitive awareness of these strategies. The findings will significantly help in developing appropriate pedagogical and remedial training for the less successful readers in Arab academic contexts.

There is a paucity of research into the strategies employed in reading Arabic as L2, especially in academic contexts. While some researchers have focused on reading strategies in general Arabic texts with less proficient (Khaldieh, 1999) or beginner students (Aweiss, 1993), others have investigated specific strategies, such as vocabulary strategies (Bin Ghali, 2001) or the role of vocabulary knowledge of Arabic in reading comprehension by L2 learners of Arabic (Khaldieh, 2001). The present study aims to contribute to our understanding of the use of reading strategies and to provide insights into reading Arabic as L2 in academic contexts. The study seeks to identify the type and frequency of reading strategies that undergraduate Arabic as L2 students report they are aware of while reading academic Arabic materials. Moreover, the study explores the relationship between metacognitive awareness of reading strategies and some learner variables.

The findings of the study can contribute both theoretically to our understanding of reading in Arabic as an L2, and practicality in designing appropriate curricula for teaching Arabic as an L2 and preparing suitable instructional materials. Moreover, the findings contribute to the knowledge base of reading strategies, currently dominated by English as a second or foreign language (ESL or EFL), by focusing on an under-researched language such as Arabic.

Literature Review

Research in L2 reading strategies began in the late 1970s and early 1980s (Carrell, 1998). The early research focused on the relationship between some cognitive strategies and both successful and less successful L2 readers (Block, 1986; Hosenfeld, 1977; Knight, Padron, & Waxman, 1985). Hosenfeld, for instance, suggested that the difference between these two type of readers is the result of the use of several strategies such as maintaining the meaning in mind while reading, reading in long phrases, skipping less important vocabulary, and maintaining a positive self-concept as reader. This suggests that teaching less successful readers such strategies could promote their reading efficiency.

Experts in English reading and metacognition have called for the inclusion of the notion of metacognition in teaching reading, as it has been found that awareness of cognitive activity is related to reading ability (Baker & Brown, 1984; Carrell, 1989; Garner, 1987). Accordingly, metacognition, which simply can be defined as "thinking about thinking" (Anderson, 2002), can be considered "a predictor of reading comprehension ability" (Baker, 2008, p. 25). Such metacognitive awareness includes not only the knowledge of the nature or purpose of reading but also the knowledge of the strategies that students use or should use to address their reading comprehension difficulties.

Metacognitive awareness is knowledge about the appropriate actions one takes in order to achieve a particular goal (Auerbach & Paxton, 1997; Carrell, Pharis, & Liberto, 1989). When applied to reading, it can be defined as "the knowledge of the readers' cognition relative to the reading process and the self-control mechanisms they use to monitor and enhance comprehension" (Sheorey & Mokhtari, 2001, p. 432). Metacognitive awareness of reading strategies can help students to understand not only what strategies they can use (declarative knowledge) or how they should use them (procedural knowledge) but also why, when, and where they are supposed to use them at a particular stage, and how to evaluate their efficacy (conditional knowledge), along with awareness of the purpose of reading that might trigger particular strategies (Anderson, 2002; Carrell, 1989). Such an approach is likely to lead students eventually to become skilled readers. It has been suggested, "students without metacognitive approaches are essentially learners without direction or opportunity to review their progress, accomplishments, and future learning directions" (O'Malley, Chamot, Stewner-Manzanares, Russo, & Küpper, 1985, p. 561).

It has been widely acknowledged in the literature related to English in L1 and L2 reading that metacognitive awareness plays an important role in enhancing the teaching and learning of reading and, more importantly, fostering reading comprehension (Auerbach & Paxton, 1997; Baker, 2008; Carrell, Gajdusek, & Wise, 1998; Carrell, et al., 1989). A typical finding in research into reading strategies is that greater awareness is likely to lead to better reading comprehension, and that less successful readers can develop their reading proficiency via training and scaffolding based on the strategies that are used by more successful readers (Carrell, et al., 1989, p. 648; Mokhtari & Perry, 2008; Mokhtari, Sheorey, & Reichard, 2008). A good reader is described from a metacognitive perspective as one who modifies the process of reading and the use of strategies according to the textual demands (Pressley & Afflerbach, 1995).

Having reviewed some general perspectives on metacognitive awareness and its effect on language learning in general, and reading comprehension in particular, we now review some studies of metacognitive awareness and reading comprehension. Carrell (1989) examined metacognitive awareness of reading strategies by two groups of learners in their L1 and L2, and the relationship between their awareness and reading comprehension. The first group comprised 45 native speakers of Spanish learning English as an L2 in an intensive program and the second group comprised native speakers of English learning Spanish as a foreign language. Carrell designed a self-report questionnaire to assess the subjects' metacognitive awareness and two texts of English and Spanish to test their reading comprehension. The results showed a negative correlation between bottom-up reading strategies and reading performance. This correlation was found, however, to be positive for L2 readers. L2 learners of English at an advanced level tended to use more top-down strategies whereas learners of Spanish at a lower level tended to use more bottom-up strategies.

In another study that focused on reading academic materials, Sheorey and Mokhtari (2001) investigated the difference in metacognitive awareness of reading strategies between 150 English native and 152 non-native university students in the U.S. while reading academic texts. They used the Survey of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002), which was specifically designed to discover L2 students' metacognitive awareness of reading strategies while reading academic or school-related materials. The results suggested, among other things, that there was a relationship between the students' reading ability and the reported reading strategies, regardless of the level of reading ability. In other words, both native and non-native students with high reading ability used more strategies than students with low reading ability in the two groups. This result confirmed the observation that skilled readers use more strategies than less skilled readers as a result of their high metacognitive awareness of the variety of reading strategies (Sheorey & Mokhtari, 2001, p. 433).

The recent trend in L2 reading strategies, defined as "deliberate, conscious procedures used by readers to enhance text comprehension" (Sheorey & Mokhtari, 2001, p. 433), embraces the notion of metacognition to better understand the strategies that distinguish skilled from less skilled readers. The significance of metacognition in reading strategy research can be attributed to the fact that strategic reading means, by definition, deliberate actions and goal-oriented processing that require an intention and awareness as well as the ability to perform such an action properly (Phakiti, 2008). In fact, there is sufficient evidence to suggest that the use of strategies to solve reading comprehension problems differentiates between good and poor readers (Anderson, 1991; Brantmeier & Dragiyski, 2009; Grabe, 2004; Hosenfeld, 1977; Jimenez, Garcia, & Pearson, 1996). Anderson (1991) reported that the difference between good and poor readers' strategy use was the result of individual differences and was much more complex than implementing specific strategies. He found that successful and unsuccessful readers both used the same strategies, but it was only when readers knew how to use the strategies properly and purposefully that they could be considered good readers. This "entails knowledge of strategies for processing texts, the ability to monitor comprehension, and the ability to adjust strategies as needed" (Auerbach & Paxton, 1997, pp. 240-241). It is clear, therefore, that there is a need to move beyond identifying the strategies that readers use, to obtain a deeper understanding of their reading processes, level of comprehension monitoring, and

metacognitive awareness of reading strategies, which all can be achieved through the metacognitive perspective.

Research in L2 reading strategies has indicated that there are several variables that can stimulate or inhibit the use of reading strategies. For instance, learner's age, exposure to and previous experience with the target language, and transfer of reading strategy from L1 to L2 have been conceived as factors that have an impact on the nature and frequency of strategy use. Regarding learner's age, Pressley and Afflerbach (1995) and Baker (2008) have noted that as reading competency develops over time, metacognitive awareness does as well. Good adult readers are found to use more cognitive and metacognitive strategies whereas younger readers tend to focus more on decoding strategies (Baker & Brown, 1984). The age variable is especially important in the Arabic language. Hansen (2010) found that learners of Arabic as a foreign language (FL) who began to learn Arabic after the critical age period experienced great difficulty in automatic decoding of Arabic words and in mastering the new writing system, regardless of the time they spent on learning the language. Hansen, therefore, called for more attention to be given to bottom-up strategies and explicit training of decoding skills.

Concerning exposure to and experience with the target language, Sanders (2004) found that FL learners of Italian in the United States who had been exposed to the language for more than 4 or 5 years reported using remarkably more strategies than learners with less experience with the language. Accordingly, Sanders highlighted the importance of the starting age of learning a language and the length of exposure as significant factors in the use of language learning strategies.

Transferring learning or reading strategies from the mother tongue to L2 is considered a marker of efficient reading (Grabe & Stoller, 2002; Mokhtari & Reichard, 2004, p. 381), as skilled L2 readers tend to regard reading as a single system and therefore look for strategies similar to those they use in their L1 to use, when appropriate, in reading L2 materials (Garcia, Jimenez, & Pearson, 1998). It has been suggested that bilingual or multilingual students tend to lean towards the use of more strategies in their L2 or FL than in their mother tongue when reading academic materials (Grabe & Stoller, 2002; Mokhtari, 2008, p. 152; Mokhtari & Reichard, 2004, p. 381). Alsheikh (2009), for example, found that native speakers of Arabic used both problem-solving strategies and support strategies more often in their L2 (English) than they did in their mother tongue (Arabic). Also, Feng and Mokhtari (1998), who assessed the reading strategies used by Chinese learners when reading easy and difficult texts in English and Chinese, found that the learners used problem-solving and support strategies more frequently when reading English than when reading Chinese. In a more recent study of the use of reading strategies by three multilingual readers, Alsheikh (2011) found that participants tended to use more strategies in their L2 and third language than in their L1. As stated by some researchers (Jimenez, Garcia, & Pearson, 1995; Mokhtari & Reichard, 2004), skilled L2 readers are not, in fact, different from skilled L1 readers in terms of their ability to process various reading materials and demonstrate metacognitive knowledge and strategies. However, the impact of the reader's previous and current literacy practices must be considered when examining the awareness and use of reading strategies in different L2 contexts. Investigating language learning strategies, Phakiti (2003) found that the context in which the strategies are used can play a vital role. That is, research that examines the use of learning strategies in a communicative environment might yield different

results from research that investigates the use of learning strategies in a silent reading situation. In line with the importance of context in studying language learning strategies, Baynham (1995) argued for a more critical look at the concepts of reading and reading strategies, which he considered to be social outputs. He pointed out that although reading for remembering might not even be considered "good" reading in the same way as reading for meaning is considered to be, the former is still valued culturally in the Arabic context. He stated, "it is important to recognize that accepted wisdom on the good reader and good reading strategies are themselves socially produced as the only possible way to learn and teach reading. It is important to revisit the dominant accepted wisdoms in areas like reading theory and pedagogy in the light of a situated approach to what counts as reading" (Baynham, 1995, p. 171).

In that regard, Liyanage, Grimbeek, and Bryer (2010) argued that the examination of learning strategies should not be limited to the macro cultural level. The micro levels of religion and ethnicity, which appear to have an impact on the students' use of learning strategies, should also be investigated.

Purpose of the Study

Within the theoretical framework provided in the literature review, the intent of the current research was to investigate university students' perceived use and metacognitive awareness of reading strategies in Arabic as an L2. Further, it aimed to explore the relationship between participants' awareness of their use of reading strategies and other factors that might affect the use of reading strategies in the Arabic academic context. The following research questions were addressed:

1) What is the overall pattern of metacognitive awareness of reading strategy use as reported by learners of Arabic as an L2 in an academic context?
2) Which reading strategy categories are perceived to be used more by the participants?
3) Is there any relationship between participants' self-rated Arabic reading ability and their metacognitive awareness of reading strategy use?
4) Is there any relationship between metacognitive awareness of Arabic reading strategy use and participants' characteristics such as age, nationality, length of exposure to Arabic language, and level of university education?

Methods

Participants

The participants in this study were 122 undergraduate students at King Saud University in Saudi Arabia. All participants were adult, male, and non-native Arabic speakers who had completed an intensive Arabic language program at the Arabic Language Institute (ALI) at King Saud University. In terms of nationality, 54.3% were from Africa, 41.8% from Asia, 2.3% from Europe, and 1.6% from America. Participants' age ranged from 18–38 years with the mean of 25.34 years. We used the median (25) of the age range to divide participants into two groups of

"younger" and "older" for some of the analyses. The participants were studying in different faculties but predominantly in the Department of Islamic Studies (n = 110, 90.2%), with fewer participants in the departments of Arabic Language (n = 8, 6.5%), Computer Sciences (n = 2, 1.6%), Management (n = 1, 0.8%), and English Language (n = 1, 0.8%). Therefore, it was not possible to include field of study as a variable. However, we were able to include some of the participants' characteristics as categorical variables in the analyses. These were participants' starting age of learning Arabic language (before and after the age of 15 years), years studying Arabic language (less and more than 5 years), and level of education in university (freshman = 25, sophomore = 32, junior = 50, senior = 15).

Data Collection Instruments

Two questionnaires and a self-rating scale were used to obtain the required data. The background questionnaire of Mokhtari (2008, pp. 159-160) was adapted to gather information about participants' nationality, age, major, starting age of learning Arabic, experience with Arabic language, and self-assessment of Arabic language skills including reading. The second questionnaire was the Survey of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002; Mokhtari, et al., 2008), translated into Arabic by Alsheikh (2009). However, since Alsheikh translated the questionnaire to be used with native Arabic speakers, a modified version was deemed to be more appropriate for this group of L2 learners of Arabic (see Appendix). The modifications included some word refining to make the SORS more comprehensible for non-native Arabic readers. The questionnaire was found to be suitable for the purpose of the current study because it is specifically designed to assess L2 learners' metacognitive awareness of reading strategies while reading academic materials (Mokhtari & Sheorey, 2002). It is based on the Metacognitive Awareness of Reading Strategies Inventory (MARSI) (Mokhtari & Reichard, 2002), which was originally developed to measure the metacognitive awareness of reading strategies among adult native speakers of English while reading academic or school-related materials. The SORS has been extensively adapted not only in ESL contexts but also in different EFL contexts, such as in Hungary (Sheorey & Baboczky, 2008), Japan (Sheorey, Kamimura, & Freirmuth, 2008), and Bahrain (Malcolm, 2009). In some cases, the SORS has been translated into participants' L1s, such as Arabic (Alsheikh, 2009) and Chinese (Zhang & Wu, 2009), to discover the differences between learners' use of reading strategies in their L1 and L2.

The SORS consists of 30 items each to be rated on a 5-point Likert scale (never, occasionally, sometimes, usually, always) and includes three sub-categories of reading strategies:

1. Global Reading Strategies (13 items): These refer to general or global reading strategies that are aimed at setting the stage for the reading act, for example, having a purpose in mind for reading and previewing the text content.
2. Problem-Solving Strategies (8 items): These can be thought of as local, problem-solving, or repair strategies used when problems occur for a deeper understanding of the textual information, such as checking for better understanding or re-reading.
3. Support Reading Strategies (9 items): These are supportive tools that are used to maintain responsiveness to reading, for example, taking notes, reading aloud, and using a dictionary.

Mokhtari and Sheorey (2002) provided a key to interpreting the mean for each item and overall item ratings of the SORS. They considered a mean ≤ 2.4 as low usage, 2.5–3.4 as medium usage, and ≥ 3.5 as high usage. We used the same rating to interpret item means in the present study. We also calculated a score for each category of awareness of reading strategy use as well as the overall awareness of reading strategy use by totaling the ratings of the individual items. This procedure enabled us to calculate an interval score for awareness of reading strategy use so that we could identify relationships between participants' characteristics and their scores on awareness of reading strategy use.

The SORS has been tested with ESL college students and the internal consistency of the questionnaire obtained through Cronbach's alpha was reported to be 0.89 (Mokhtari & Sheorey, 2002). The reliability of the current modified translated version of SORS was first tested with 41 students in a pilot study with the results indicating that the modified version was reliable (Cronbach's alpha = 0.88). Therefore the modified version was used in the main study with 122 participants and the reliability calculated for the main study was 0.83 using Cronbach's Alpha. Table 1 presents further details on the reliability of the SORS with the data from the current study.

Table 1. *Cronbach's Alpha for each category and all items of the SORS (n=122)*

Category	No. of Items	Alpha
Global Reading Strategies	13	0.70
Problem-Solving Strategies	8	0.66
Support Reading Strategies	9	0.61
All items	30	0.83

Although the alpha indices for the three strategy categories are moderate (0.61–0.70), the alpha index for the whole questionnaire is rather high, indicating internal consistency of the questionnaire with this study's data.

Participants' self-rating of their Arabic reading ability on a scale of 1-10 was also used in the analyses. The reason for using this self-rating scale to assess participants' evaluation of their reading proficiency in Arabic was that the authors could not find a reliable and valid test of Arabic as L2 to evaluate participants' reading proficiency in Arabic. It is acknowledged that the participants' self-assessments provide a subjective index compared to an objective test, but the results can nevertheless provide some information about these participants' reading proficiency in Arabic.

Data Collection Procedure

The study was carried out during the first semester of the academic year of 2009 at King Saud University where the participants were studying. Data collection included explaining the purpose of the study to participants and answering their questions. Volunteer participants then signed the consent form and were asked to fill out the demographic questionnaire, which included questions about their age, faculty of enrollment, starting age of learning Arabic, experience with Arabic language, and a self-assessment of their Arabic language skills. Afterwards, participants were asked to complete the SORS. They were asked to read each item carefully and circle the option

that best described their perceived performance while reading Arabic academic texts. They were asked to provide answers that related to their own performance—there were no right or wrong answers. They were also assured of the confidentiality of the information they provided and that their voluntary participation in the study would not affect their course grades. All participants completed the questionnaires in one session and in the same place. Both descriptive and inferential statistics were used to analyze the questionnaire data using SPSS version 19.

Data Analysis Procedures

The following data analysis procedures were used to analyze the collected data:

1) Descriptive statistics for each of the strategy items and each strategy category
2) Pearson correlation to find the association between the participants' self-assessment of their Arabic reading ability and their preferences for using reading strategies
3) Multivariate analysis of variance (MANOVA) to determine the relationship between awareness of reading strategy use and participants' characteristics

Results and Discussion

The results of the data analysis are presented in three parts. The first part presents the overall pattern of strategy use awareness. The second part presents the relationship between participants' self-assessed reading ability and their metacognitive awareness of strategy use. The third part presents the relationships of strategy use awareness to some of the participants' characteristics.

Overall Pattern of Strategy Use

Participants' awareness of reading strategy use showed that none of the 30 reading strategies were used at a low-usage level. In fact, 18 strategies of the 30 strategies were reported to be used at a high-usage level (*Mean* $\geq$ 3.5) and the 12 remaining strategies were at a moderate-usage level (*Mean* $\geq$ 2.5). The reason for the overall high usage of reading strategies might be that reading for study or any academic purpose stimulates readers to use more strategies, as reading academic texts makes greater cognitive demands (Mokhtari & Reichard, 2008, p. 94). Moreover, since motivation is considered an important factor that influences learners' frequency of strategy use, learners with high motivation tend to use many more strategies than less motivated learners, as reported by several studies (Al-Otaibi, 2004; Oxford & Nyikos, 1989; Rahimi, Riazi, & Saif, 2008). This becomes more obvious in the context of learning Arabic, as many Muslims around the world have a great desire to learn Arabic, mainly in order to acquire more religious knowledge. Teh, Embi, Yusoff, and Mahamod (2009) reported that their participants, who were secondary religious school students in Malaysia, had a strong level of integrative motivation and a positive attitude towards Arabic. They also found a positive and linear relationship between the students' strategy use and their level of motivation. Furthermore, the academic major can also be seen as another factor that can contribute to the high usage of reading strategies. Oxford and Nyikos (1989) found that career orientation, reflected here in university major, has a strong effect on the selection of language learning strategies. Moreover, several studies suggested that students in the humanities and the social sciences tend to use strategies more often than those

who study technical or hard science subjects (Dreyer & Oxford, 1996; Oxford & Nyikos, 1989; Rao & Liu, 2011). Therefore, since all participants in the current study were Muslims seeking further knowledge in Islamic sciences and because around 98% of the them studied in the Department of Islamic Studies and the Department of Arabic Language, motivation and academic major can be considered factors accounting for the high use of reading strategies.

Table 2 presents the item means for each of the three strategy categories and the overall reading strategy use awareness.

Table 2. *Items means and Standard Deviations for the three categories and overall strategies*

Category	Item Mean (*SD*)	Rank
Global Reading Strategies	3.55 (0.50)	2
Problem-Solving Strategies	4.04 (0.50)	1
Support Reading Strategies	3.52 (0.58)	3
Overall Reading Strategies	3.67 (0.45)	--

The prime preference for problem-solving strategies (PROB), followed by global (GLOB) and support strategies (SUP), is consistent with several previous studies that examined the perceptions' of reading strategies via SORS (Alsheikh, 2009; Alsheikh, 2011; Dhanapala, 2010; Mokhtari, 2008; Mónos, 2005; Zhang & Wu, 2009). However, it is in contrast with other studies where subjects nominated support strategies as their preferred choice, for instance, Hungarian university students (Sheorey & Baboczky, 2008) and both ESL students and native English-speaking U.S. college students (Sheorey & Mokhtari, 2001).

Participants' preferences for problem-solving strategies suggests that these readers were, generally, aware of their reading process and capable of taking action while reading in order to overcome reading difficulties. For instance, the most preferred strategy (see Table 3) was "When text becomes difficult, I re-read it to increase my understanding" (Item 25, $M = 4.60$, $SD = 0.77$), which indicates the students' action when comprehension breaks down. Also, strategies such as "When text becomes difficult, I pay closer attention to what I am reading" (Item 14, $M = 4.40$, $SD = 0.76$) and "I try to get back on track when I lose concentration" (Item 9, $M = 4.37$, $SD = 0.84$) demonstrate the students' awareness of their reading comprehension process and the strategies they employed to address any reading problems. It has been argued that the use of problem-solving strategies is associated with skilled reading and that good readers use these strategies to enhance and regulate their reading comprehension (Baker & Brown, 1984).

A possible explanation for the high usage of reading strategies in general and problem-solving strategies in particular is that L2 readers generally read more slowly than native speakers. This slow reading is a result of a number of challenges that L2 readers encounter, which force them to stop and repair any reading problem (Block, 1992). This is supported by the belief that L2 readers are expected to come across significant difficulties (Alderson, 1984), whether unknown vocabulary or unfamiliar cultural references. Alsheikh (2009), who investigated the reading strategies used by Arabic bilingual students, found that when Arabic readers encountered new vocabulary while reading ESL texts they tended to use problem-solving strategies such as reading slowly and re-reading. Furthermore, the purpose of reading may explain the frequency of

reading strategy usage in general and PROB in particular. Mokhtari and Reichard (2008) examined the relationship between reading purpose and metacognitive awareness of reading strategy use by a group of high school students. The students reported using problem-solving strategies more often than global and support strategies when they read as part of their studies or for entertainment. It is suggested that certain types of reading situations are likely to stimulate certain types of strategies (see, e.g., Lorch, Lorch, & Klusewitz, 1993).

Another possible explanation for the high usage of problem-solving strategies draws on Abu-Rabia (2002) and Hansen's (2008) framework of the reading acquisition of Arabic. It can be expected that, since Arabic readers need to pay more attention to bottom-up processing, frequent use of problem-solving strategies occur. Strategies such as re-reading, paying closer attention, and reading slowly and carefully, which were frequently reported in this study, may indicate the amount of attention that readers give to low level processing of the language system, including aspects of lexis and morphology.

The choice of GLOB strategies as the second-most preferred category could be interpreted as indicating that the participants had the ability to plan and manage their reading comprehension process. "I have a purpose in mind when I read" (Item 1, $M = 4.27$, $SD = 0.96$) was the most preferred global reading strategy, which could imply that participants planned before doing any reading. Further, the participants' use of "I think about what I know to help me understand what I read" (Item 3, $M = 3.96$, $SD = 1.05$) and "I check my understanding when I come across new information" (Item 23, $M = 3.81$, $SD = 1.05$) possibly represent their monitoring and planning capability while reading.

Moreover, some GLOB strategies that the participants reported using displayed their online decision-making. Strategies such as "I use context clues to help me better understand what I am reading" (Item 17, $M = 3.49$, $SD = 1.11$), "When reading, I decide what to read closely and what to ignore" (Item 12, $M = 3.44$, $SD = 1.15$), and "I use typographical features like bold face and italics to identify key information" (Item 20, $M = 3.40$, $SD = 1.22$) possibly contribute to better regulation of their reading comprehension. Yet these items were not among the most favored strategies within the sub-category of GLOB strategies. In other words, participants might have recognized the need for using planning and monitoring strategies but have uncertain knowledge of how to employ them at the proper time and place.

Four GLOB strategies were among the least preferred strategies (see Table 3). These were: "I use figures and pictures in text to increase my understanding" (Item 15, $M = 3.09$, $SD = 1.22$), "I critically analyze and evaluate the information presented in the text" (Item 21, $M = 3.20$, $SD = 1.04$), and "I try to guess what the content of the text is about when I read" (Item 24, $M = 3.26$, $SD = 0.98$). The reason for these being among the least preferred strategies is probably due to the context itself, which does not, in reality, focus on these types of strategies, either in teaching methods or in curriculum and textbook design. Most of the textbooks and materials the students read are of an old-fashioned design, and rarely contain pictures or graphs. Furthermore, the reading materials assigned for reading in several subjects at the undergraduate level were presented as knowledge that needs to be learned rather than views or theories that the students could discuss or take a position about. This is not to suggest that the whole context does not support the students to be critical or to take another position, but it reveals that evaluation and

critical reading did not seem to be as common at the undergraduate level as it might be at the postgraduate level.

The SUP strategy was the least used sub-category according to the students' reports, although the survey results indicated that six out of the nine support strategies were widely used. Strategies such as "I underline or circle information in the text to help me remember it" (Item 10, $M = 3.88$, $SD = 1.13$), "When reading, I think about information in both Arabic and my mother tongue" (Item 30, $M = 3.72$, $SD = 1.19$), and "When text becomes difficult, I read aloud to help me understand what I read" (Item 5, $M = 2.72$, $SD = 1.42$) were the least preferred. The low usage of support strategies has been reported in several other studies, regardless of methodology (Riazi, 2007; Sheorey & Baboczky, 2008; Sheorey & Mokhtari, 2001). According to Zhang and Wu (2009, p. 46), the value of support strategies depends largely on their context of use, and thus this result could imply the participants' flexibility of strategy use as well as their autonomy in using the strategies based on their needs.

Table 3 presents the five most used strategies, which mostly belonged to the PROB category, and the five least used strategies, which mostly belonged to the GLOB category, using the item means.

Table 3. *The five most used and the five least used strategy items*

	Five most used strategies		
Item No.	Item description	Mean	*SD*
25	When text becomes difficult, I re-read it to increase my understanding (Problem-solving)	4.60	0.77
14	When text becomes difficult, I pay closer attention to what I am reading (Problem-solving)	4.40	0.76
9	I try to get back on track when I lose concentration (Problem-solving)	4.37	0.84
1	I have a purpose in mind when I read (Global)	4.27	0.96
7	I read slowly and carefully to make sure I understand what I am reading (Problem-solving)	4.13	0.87
	Five least used strategies		
8	I review the text first by noting its characteristics such as length and organization (Global)	3.31	1.14
24	I try to guess what the content of the text is about when I read (Global)	3.26	0.98
21	I critically analyze and evaluate the information presented in the text (Global)	3.20	1.04
15	I use figures and pictures in text to increase my understanding (Global)	3.09	1.22
5	When text becomes difficult, I read aloud to help me understand what I read (Support)	2.72	1.42

With reference to the least used strategy (Item 5), despite the fact that reading aloud is a common practice in Arabic language teaching and learning, it should be noted that particular attention is

paid to silent reading in the ALI as a modern method of teaching reading. Students are often asked to read silently in the reading classes to obtain the overall meaning of the content before they move to discuss the words and grammar aspects. This is, of course, not the case in reading and memorizing the Qur'an, when reading aloud is encouraged. Participants might have been affected by new approaches to teaching Arabic and thus have tried to show that they were aware of the fact that reading aloud should not be used for reading university materials, but perhaps they are unaware of the usefulness of reading aloud as a strategy.

The findings of the study suggest that these participants were more aware of problem-solving strategies than global strategies. This conclusion is supported by the fact that most of the problem-solving strategies were ranked above higher global strategies. It can be concluded that this group of readers indicated the ability to fix comprehension problems through various text-driven strategies. Yet, to say that they are skilled readers depends on many other aspects, including high usage of global reading strategies, which was not found in this study. On the other hand, this conclusion should not be surprising when prior literacy practice and learning experience as well as the academic demands of the current context are taken into account. A teaching approach that is teacher-centered and employs, at least to some degree, rote learning and memorization, which is dominant in Arabic culture (Farquharson [1989], cited in Bedell & Oxford, 1996) is likely to lead learners to practice more often the type of strategy that will help them to stay on track, such as re-reading and reading carefully for better understanding, rather than the type of strategy that will lead them to be more critical readers, something global reading strategies offer. This is, of course, not to underestimate the importance of problem-solving along with global strategies in performing constructive reading. Instead, this suggests that the attention that students give to the text and to vocabulary while reading explains their concentrating largely on the use of text-driven or problem-solving strategies.

Relationship between Metacognitive Awareness of Strategy Use and Participants' Self-Rated Reading Ability

Participants were asked to self-rate their reading ability in Arabic on a scale of 1-10. The question was "How do you rate your Arabic reading ability on a scale of 1-10?" Results showed a negatively skewed distribution, as presented in Figure 1. The mean of self-rated reading ability was 7.95 (*SD* = 1.88), the median was 8, and the mode (n = 33, 27%) was 10. Although this result indicates that these students were confident in their reading ability, it is still a subjective result. In fact, there was a desire to use an objective tool to explore the differences between skilled and less skilled readers with regards to their metacognitive awareness of reading strategies. An Arabic reading comprehension test used in ALI as placement test for new arrival students was used in this study as it is the only available test. However, the test results showed a ceiling effect in the sense that it was not able to discriminate among the test takers in terms of their reading performance. Accordingly, we were not able to use the results of the objective reading test in our analysis.

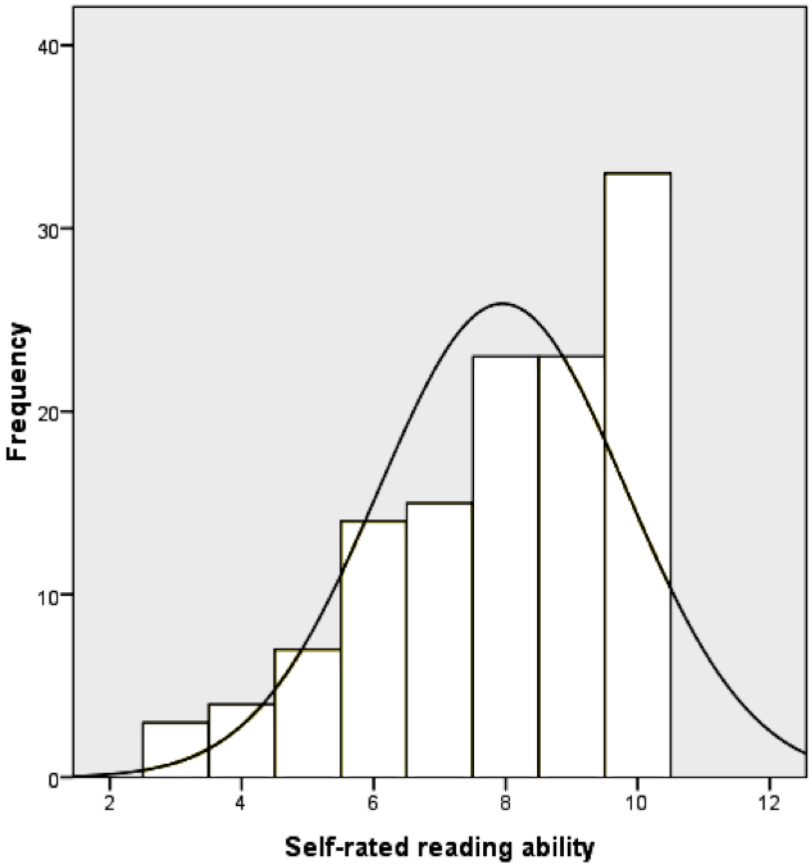

Figure. 1 Distribution of self-rated reading ability

A Pearson correlation was run between participants' self-rated reading ability and the item means for overall and the three categories of strategy use awareness, as presented in Table 4.

Table 4. *Pearson Correlation between strategy categories and participants' self-rated reading ability*

Strategy category	Correlation
Global	0.239**
Problem-Solving	0.236**
Support	0.115
Overall Reading Strategies	0.233**

Note. ** $p < 0.01$

The pattern of correlations in Table 4 is quite similar to those reported by previous studies (Mónos, 2005; Sheorey & Mokhtari, 2001). As can be seen in Table 4, students' awareness of global and problem-solving strategy use correlated significantly with their self-rated Arabic reading ability, although the magnitudes of the correlation coefficients are not high. No correlation was found between students' self-rated reading ability and their awareness of support

strategy use.

Relationship between Awareness of Reading Strategy Use and Participants' Characteristics

In this section we present the relationships between the individual characteristics of the participants (age, nationality, level of study in the university, starting age of learning Arabic, and experience with Arabic language) and their awareness of reading strategy use. Table 5 presents the descriptive statistics for these variables across the strategy use categories. To create groups, we used the median for age (median = 25), starting age of learning Arabic (median = 15), and experience with Arabic language (median = 5). Accordingly, some participants who were exactly at the median level for these three variables were omitted; therefore there are different numbers for different variables in the table.

Table 5. *Descriptive statistics for the strategy category and personal characteristics*

	Age group		Nationality		Level in university (semesters)		Starting age of learning Arabic		Experience with Arabic language	
	Below 25	Above 25	Africa	Asia	1-4	5-8	Below 15	Above 15	Less than 5	More than 5
Strategy category	54	45	66	51	57	65	50	60	46	60
Global (*SD*)	3.50 (.56)	3.60 (.47)	3.66 (.51)	3.39 (.46)	3.43 (.53)	3.64 (.47)	3.67 (.51)	3.48 (.49)	3.41 (.50)	3.63 (.48)
Problem-solving (*SD*)	4.09 (.47)	4.04 (.58)	4.10 (.50)	3.90 (.48)	3.93 (.49)	4.14 (.49)	4.14 (.55)	3.94 (.46)	3.96 (.48)	4.14 (.49)
Support (*SD*)	3.49 (.59)	3.60 (.60)	3.58 (.59)	3.40 (.57)	3.35 (.55)	3.66 (.58)	3.57 (.62)	3.48 (.57)	3.50 (.53)	3.50 (.63)
Overall (*SD*)	3.66 (.47)	3.72 (.44)	3.76 (.46)	3.54 (.40)	3.54 (.43)	3.78 (.43)	3.77 (.48)	3.60 (.42)	3.60 (.42)	3.70 (.45)

A Pearson correlation was run between the categorical (personal characteristics) variables and the three strategy use awareness categories. Results showed statistically significant relationships between global strategy use and level in university education ($r = 0.20$) and nationality ($r = 0.27$); between problem-solving strategy use and level in university education ($r = 0.20$) and nationality ($r = 0.19$); and between support strategy use and level in university education ($r = 0.26$). On the basis of these correlations it was decided to run a MANOVA on the item means of the three strategy use categories (global, problem-solving, and support) and the two categorical variables (nationality and level in university education).

Before running the MANOVA it was necessary to check the following assumptions (Pallant, 2007; Stevens, 1996) for this parametric test:

1) Sample size
2) Normality

3) Outliers
4) Linearity
5) Homogeneity of regression
6) Multicollinearity and singularity
7) Homogeneity of variance-covariance matrices

In terms of sample size, as Stevens (1996) has argued, we should have 20 participants for every dependent variable, thus 60 for the three dependent variables (item means for each category of strategy use) in this study. The present sample size goes well beyond this. Normality of the three dependent variables was checked through histograms, and although they were not perfectly normal, no abnormality was observed. Of the four distributions, support reading strategy use was slightly positively-skewed. However, as Pallant (2007, p. 277) stated, "in practice it [MANOVA] is reasonably robust to modest violation of normality." The outliers were checked using both univariate (through box plots) and multivariate (through Mahalanobis distances) normality. The box plots in univariate normality checked indicated no outliers for the global, support, and overall strategy use, and only one outlier (case 68) for problem-solving strategy use. For the multivariate outliers, the Mahalanobis distance was found to be 12.60, which was smaller than the critical value (16.27) with three dependent variables, thus indicating there were no multivariate outliers. To check the linearity of the dependent variables, a matrix of scatterplots between each pair of the variables, separately for our groups were obtained. As these plots showed no obvious evidence of non-linearity the assumption of linearity was satisfied. Homogeneity of regression was not an issue here because it is only important if stepdown analysis is to be done (Pallant, 2007, p. 282), which this was not the case in current study. Pearson correlation was run between the three dependent variables to check the multicollinearity (when the dependent variables are highly correlated). The three dependent variables were moderately (0.53–.58) correlated. Finally, the test of homogeneity of variance-covariance is generated as part of the MANOVA output (Box's Test of Equality of Covariance Matrices). Since the significance value (0.63) was greater than 0.001, the homogeneity of variance-covariance was not violated. Moreover, Levene's test of equality of error variances showed no significant values (0.26, 0.88, and 0.72 for global, problem-solving and support strategy use) less than 0.05 indicating that the assumption of equality of variance for the variables was not violated.

Results of the MANOVA showed that Wilks' Lambda was 0.94, $p = 0.06$ with the Partial Eta Squared of 0.063 for nationality group and 0.91, $p = 0.02$ with Partial Eta Squared = 0.085 for the level in university study group. Tests of between-subjects effects revealed a significant difference in the global strategy use category for the nationality group ($F = 7.11$, df = 1, $p < 0.05$) with a Partial Eta Squared of 0.03). Moreover, significant results were found for global ($F = 3.85$, $df = 1$, $p < 0.05$, Partial Eta Squared = 0.03), problem-solving ($F = 3.83$, $df = 1$, $p < 0.05$, Partial Eta Squared = 0.03), and support strategy use ($F = 10.42$, $df = 1$, $p < 0.01$, Partial Eta Squared = 0.084) for the level in university study. No significant results were found for the interaction of nationality and level in the university study across the three dependent variables. Given the significant findings from the MANOVA, follow-up analysis of variance (ANOVA) was warranted. Because we were looking at a number of separate analyses here, we employed the recommendation of Pallant (2007) and used the Bonferroni adjustment. Accordingly, we set the level of significance to 0.02 or less for each of the three variables (0.05/3= 0.02).

A one-way ANOVA for global strategy use indicated that there was a significant difference (F = 9.04, df = 1, $p < 0.01$) between Asian and African students in their global strategy use awareness. The African background students (n = 66) reported a higher item mean for global strategy use (mean = 3.66, SD = 0.51) than the Asian background students (n = 51). The ANOVA results for the three strategy categories and the level in university study are presented in Table 6.

Table 6. *Results of ANOVA for the three categories of strategy use and level in university study*

	Level in university study					
	1 to 4 semesters (n=57)		5 to 8 semesters (n= 65)		F (df=1)	p
	Mean	*SD*	Mean	*SD*		
Global	3.43	0.52	3.64	0.47	5.24	0.024
Problem-solving	3.39	0.49	4.14	0.49	5.24	0.024
Support	3.35	0.55	3.66	0.58	8.78	0.004

From Table 6, it is clear that participants who had spent more time at university (5–8 semesters) reported more awareness of strategy use in all the three strategy categories. However, this was more vivid for problem-solving strategies (item mean = 4.14) compared to global and support strategies. This indicates that the more time participants had spent at university the more likely they were to be strategic readers. This is supported by the suggestion that the more readers become expert in a specific domain of expertise, the more they become able to orchestrate their use of reading strategies as a result of their content schemata and familiarity with the text types and content (Baker, 1989; Baker & Brown, 1984; Malcolm, 2009). Also, this can be attributed to the view that metacognitive awareness develops over time, as suggested by Pressley and Afflerbach (1995) and Baker (2008). Factors such as age, starting age of learning Arabic, and experience with Arabic language did not show significant correlations with awareness of reading strategy use in the current study.

Theoretical and Practical Implications of the Study

The findings of this study can be summarized as follows: This study reveals the type of reading behavior and activities that non-native Arabic university students tend to use while reading Arabic academic texts. Given that the majority of studies of reading comprehension strategy use are focused on the English language, this study, which investigated reading comprehension strategy use in an under-researched language (Arabic), can expand our understanding of strategy use awareness. Our results illustrate that learners in this group have a high level of metacognitive awareness and can be considered active readers due to their high usage of reading strategies. This result could be attributed to several factors, including the students' bi/trilingualism, motivation, academic major, as well as the nature of reading acquisition in Arabic with regard to problem-solving strategies in particular, as suggested by Abu-Rabia (2002) and Hansen (2008). More importantly, the analysis of the students' variables revealed that students' nationality and their level of education were the only significant variables that influenced their use of reading strategies. African students were shown to be more globally strategic readers than Asian students. Furthermore, students with more academic experience (junior and senior students) were found to be more strategic readers than freshmen and sophomore students. It was also found that students

reported more use of problem-solving strategies than the other strategy categories. This indicates that the participants of this study were highly engaged with the Arabic texts. Four of the five most frequently used strategies were from the problem-solving category, a finding which is consistent with previous reading strategy studies in EFL contexts.

For practical implications, since the majority of the participants studied in the Department of Islamic Studies, this study might provide better understanding of the pattern of reading strategy use by non-native Arabic readers when reading religious Islamic texts. The findings of the study could be used for strategy training programs in Arabic as L2 and FL contexts. Our results could help Arabic language teachers and curriculum designers to better understand students' needs with regard to their level in university, in which beginners and senior students seem to have different needs in terms of reading strategy training. Similarly, the participants in this study seemed to be different reading strategy users according to their ethnicity. African students reported more use of global strategies than Asian students. This finding needs to be investigated further, but it supports the contention that learning strategies in general should be examined at micro-cultural levels, since ethnicity appears to have affected strategy use, as also suggested by Liyanage, Grimbeek, and Bryer (2010).

Based on the points discussed, it seems imperative to consider strategic competence as a major component along with other important factors in the curriculum development and teaching of the Arabic language. A language program that aims to increase students' metacognitive knowledge of reading strategies, with particular attention to problem-solving strategies, through explicit teaching of these strategies, has been found useful for promoting students' metacognitive awareness of reading strategies (Baker, 2008; Paris, Lipson, & Wixson, 1983) and is likely to achieve better preparation of current students in the ALI. Generally, moving L2 learners from "learning to read" to "reading to learn" means that they need to know not only what strategies they can use but also when and how to employ them. Such a practice is likely to help learners to be metacognitively aware as well as to become effective users of the language and eventually to become strategic readers. Likewise, teachers can guide and motivate their students to use strategies such as self-regulation, evaluation, and other metacognitive strategies that are likely to increase their academic efficiency.

Overall, however, the results of this study should be treated with caution, as it is, firstly, limited to the students' perceptions of strategy use awareness rather than their actual use of reading strategies. Examining the actual use of reading strategies, which is planned to be completed as the second part of this study, is likely to provide insights into the nature and level of reading strategy use among these readers. Secondly, the purpose and context of this study is limited, and the study was limited to male campus students. The students acknowledged that their purpose of learning and reading Arabic was primarily to increase their religious knowledge. Therefore, a study with participants of both genders, and a variety of purposes and contexts for learning Arabic, might reveal different ways of using reading strategies in Arabic as an L2.

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Appendix

Survey of Reading Strategies (Adapted from Mokhtari & Sheorey, 2002)

استبانة قياس إستراتجيات القراءة

الهدف من هذه الاستبانة هو جمع المعلومات عن الإستراتجيات التي تستخدمها أثناء قراءتك للنصوص الأكاديمية باللغة العربية، وخاصة ما يتعلق منها بدراستك للمقررات الجامعية مثل: القراءة في الكتب الدراسية أو المقالات العلمية المتخصصة (وليست القراءة في المجلات العامة أو الصحف اليومية).

الفقرات الواردة بالنص أدناه تعود إلى **قراءتك باللغة العربية للنصوص الأكاديمية في مختلف المواد التي تدرسها في الجامعة**، كل فقرة ستتبع بخمسة أرقام 1-2-3-4-5 وكل رقم يعني الآتي:

1- أبدا لا أفعل هذا إطلاقا.
2- أفعل ذلك من حين لآخر.
3- أحيانا أفعل ذلك (بنسبة 50%).
4- عادة أفعل ذلك.
5- دائما أفعل ذلك.

بعد قراءة كل فقرة ضع دائرة حول الرقم الذي تراه مناسبا. مثال ذلك لو أنك تقرأ **دائمًا** بعد وجبة الغداء ستضع علامة على الرقم 5: أقرأ بعد وجبة الغداء ....1 2 3 4 5 .

أخيرًا أود أن ألفت انتباهك أنه لا يوجد إجابة صحيحة أو خاطئة للفقرات الواردة في هذه الاستبانة. أرجو أن تضع دائرة على الرقم الذي تراه مناسبا.

الرقم	الإستراتيجية	أبدا لا أفعل هذا إطلاقا	أفعل ذلك من حين لآخر	أحيانا أفعل ذلك 50%	عادة أفعل ذلك	دائما أفعل ذلك
1	يكون لي هدف حينما أقرأ	1	2	3	4	5
2	عندما أقرأ أكتب بعض الملحوظات لمساعدتي في الفهم	1	2	3	4	5
3	أستخدم معرفتي السابقة لتساعدني في فهم ما أقرأ	1	2	3	4	5
4	أنظر إلى النص نظرة عامة لمعرفة ماهيّته قبل قراءته	1	2	3	4	5
5	حينما يصبح النص صعبا أقرأ بصوت عالٍ لمساعدتي في فهم ما أقرأ	1	2	3	4	5
6	أفكر فيما إذا كان محتوى النص يتفق مع هدفي الرئيس من القراءة	1	2	3	4	5
7	أقرأ ببطء وتمهّل حتى أتأكد من استيعاب ما أقرأ	1	2	3	4	5
8	قبل أن أقرأ أستعرض النص لمعرفة بعض خصائصه كطول النص وتقسيمه	1	2	3	4	5

9	حينما أفقد التركيز في القراءة، أراجع النص مرة ثانية	1	2	3	4	5
10	أضع خطًا أو دائرة حول بعض المعلومات في النص لمساعدتي في تذكرها	1	2	3	4	5
11	أضبط سرعتي في القراءة تبعا لما أقرأه	1	2	3	4	5
12	عندما أقرأ، أحدد ما سوف أقرأه بتركيز وما سوف أهمله	1	2	3	4	5
13	أستعين ببعض الأدوات (كالمعجم مثلا) لمساعدتي في فهم ما أقرأ	1	2	3	4	5
14	حينما يكون النص صعبا، أحاول التركيز فيما أقرأ	1	2	3	4	5
15	أستعين بالأشكال والصور في النص لأزيد من استيعابي	1	2	3	4	5
16	أتوقف من حين لأخر لأفكر فيما أقرأ	1	2	3	4	5
17	أستعين ببعض القرائن والإشارات في محتوى النص لمساعدتي في الفهم	1	2	3	4	5
18	أصيغ بعض الأفكار بمفرداتي الخاصة لأزيد من فهمي للنص	1	2	3	4	5
19	أحاول أن أتصور وأتخيل المعلومات لمساعدتي في تذكر ما أقرأ	1	2	3	4	5
20	أستعين بتنسيق الكتابة كتعريض الخط والأقواس لتمييز المعلومات الأساسية	1	2	3	4	5
21	أحلل وأقيّم وأنقد المعلومات في النص الذي أقرأه	1	2	3	4	5
22	أراجع النص مِرَارًا لإيجاد العلاقات بين أفكاره	1	2	3	4	5
23	أراجع معلوماتي حينما تعترضني معلومات جديدة	1	2	3	4	5
24	حينما أقرأ، أحاول تخمين محتوى النص	1	2	3	4	5
25	عندما يصبح النص صعبا، أقرأه مرة ثانية لأفهمه فهمًا تامًا	1	2	3	4	5
26	أطرح على نفسي أسئلة أثناء القراءة أتمنى أن أجد إجاباتها في النص	1	2	3	4	5
27	أراجع لأتأكد ما إذا كانت توقعاتي حول النص المقروء صوابًا أم خطأً	1	2	3	4	5
28	حينما أقرأ، أحاول تخمين معنى الكلمة أو العبارة التي لا أعرفها	1	2	3	4	5
29	حينما أقرأ، أترجم من اللغة العربية إلى لغتي الأم	1	2	3	4	5
30	حينما أقرأ، أفكر في المعلومات الواردة باللغة العربية وكذلك لغتي الأم	1	2	3	4	5

About the Authors

Ahmad A. Alhaqbani is currently a PhD candidate in Linguistics at Macquarie University, Australia. He received his MA in Applied Linguistics (TESP) from Macquarie University in 2008. His research interests include reading strategies in Arabic as a second language and teaching Arabic for specific purposes, especially for academic purposes. He is a teaching assistant at the Arabic Language Institute, King Saud University, Saudi Arabia. Email: alhaqbani27@gmail.com

Abdol-Mehdi Riazi is an associate professor and the convener of the postgraduate units of

Research Methods and Language Testing and Evaluation in the Department of Linguistics, Macquarie University. His areas of interest include language learning strategies, language testing and evaluation and literacy in a second language. Email: mehdi.riazi@mq.edu.au