Tunisian EFL Students' Awareness and Use of Metacognitive Strategies in Academic Reading

Hanen Dammak, University of Tunis, Tunisia
Asma Maaoui, University of Tunis, Tunisia

The Barcelona Conference on Education 2022
Official Conference Proceedings

Abstract
The purpose of the present study was to investigate the metacognitive reading strategy awareness and use of second language learners majoring in English in a Tunisian university. For this purpose, a sample of 113 Tunisian tertiary education students volunteered to answer an online survey based on a modified version of the MARSI inventory (Mokhtari et al., 2018). Additionally, four students were interviewed as a follow-up for a better understanding of their awareness and use of metacognitive strategies when reading academic materials, specifically in linguistics, culture studies, and literature. The modified MARSI version assesses three categories of strategies: (1) Global Reading Strategies, (2) Problem-Solving Strategies, and (3) Support Reading Strategies. The quantitative data analysis included both descriptive statistics and correlations between three factors via SPSS 23. The findings revealed moderate to strong correlations between (1) global reading and problem-solving strategies, (2) global reading and support reading strategies, and (3) problem-solving strategies and support reading strategies. Besides, the analysis showed a mismatch between the learners' reported high strategy use and good reading ability on the one hand and a predominantly low level of metacognitive strategy awareness on the other.

Keywords: Metacognitive Strategies, Academic Reading, Strategy Awareness, Strategy Use, MARSI

INTRODUCTION

Reading is generally considered a purposeful and interactive process (Alderson, 2000; Carr, 2006; Grabe, 2002) during which a reader builds meaning through "visually encoded linguistic information" (Koda, 2013, p. 1). Empirical research has shown that reading involves the three processes of (a) decoding, (b) text-information building, and (c) reader-model construction. There is a consensus that fluent readers are engaged in a "rapid," "interactive," and "purposeful" process marked by "processing efficiency," "strategic processing," and "sufficient knowledge of language" (Grabe, 2000, p. 229). Additionally, readers should be able to engage in a higher and lower-level processing of the text at hand (Alderson, 2000; Grabe, 2000; Koda, 2005, 2013). Similarly, Carr (2006), Dabarera et al. (2014) and Teng (2019) contend that reading is a complex skill where a variety of elements come into play. It can be quite challenging for language learners to develop or use the reading skills that are needed in an academic context.

Empirical research has attended to the question of strategies and their importance to reading proficiency (Olson & Gee, 1991). It has outlined the different types of strategies students employ, how they do so, and under which contexts. This line of research has revealed that the use of different reading processes including metacognitive strategies and awareness boost readers' comprehension. Despite the importance of metacognition to reading proficiency (Anderson, 2002; Kamil et al., 2010; Mokhtari & Sheorey, 2002; Mokhtari et al., 2008) little is known about L2 students' awareness and use of metacognitive strategies in academic reading contexts. Research has confirmed the possibility of assessing learners' "metacognitive awareness or perceived use of reading strategies when reading texts for academic purposes" (Mokhtari et al., 2018, p.222).

Doing research on metacognitive processing skills and strategies could be useful in many ways. It can provide insights on the design of learning to read and reading assessment activities, and tests (Mokhtari et al., 2018). The research outcomes in this area would contribute to the development of curricula philosophies for learners' learning to read consciously and with a good command of reading strategies for academic purposes.

The purpose of this study was to explore English as a Foreign Language (EFL) higher education students' awareness and use of metacognitive strategies in academic reading. It was expected that Tunisian students majoring in English would have a moderate to high level of metacognitive strategy awareness in academic reading. Presumably, these learners would have developed the necessary strategic competence allowing them to cope with academic reading demands. It was also expected that there would be an alignment between their degree of awareness and their strategy use.

LITERATURE REVIEW

Research into strategic reading in L2 contexts has received growing attention (e.g. Alami, 2016; Dallagi, 2021; Li & Wang, 2010; Teng, 2019). This line of research has witnessed a focal shift in the last four decades or so to broaden the reading-related research agenda (Kamil et al., 2010). It has relied on different instruments to elicit readers' strategy use during or retrospectively to reading leading to several models of strategy use (Mokhtari et al., 2008; Phakiti, 2003). Reading research has also covered intervention studies to examine the effect of strategy training on reading proficiency and its benefits to reading development (Anderson, 2005; Nunan, 2002; Plonsky, 2011). Interestingly, most researchers (Grabe, 2002;

Mokhtari et al., 2018) have emphasized the central role of awareness of cognitive processes in comprehension. This awareness about one's thinking process is referred to in the literature as metacognition (Flavell, 1979). Kuhn and Dean (2004) define this concept as the "awareness and management of one's own thought" (p. 270). In a similar vein, Martinez (2006) describes it as "the monitoring and control of thought" (p. 696). Doing research on metacognitive strategies could be useful in many ways as strategic readers will have greater control over their reading processes and are better self-regulators. Research findings could inform both reading instruction and assessment (Mokhtari et al., 2018) through the development of philosophies underlying curricula aiming at improving learners' learning to read consciously and with a good command of reading strategies for academic purposes.

Various cognitive activities related to L2 learning depend on metacognition, which is defined as thinking about thinking (Flavell, 1979; Zhang, 2018). Metacognition or "thinking about thinking" (Anderson, 2002) denotes "one's understanding of any cognitive process," including the learners' "knowledge of strategies" and "control" over their learning process (Carrell et al., 1989: 650). The distinction drawn between these two aspects of metacognition is of utmost importance. Readers' metacognitive strategy use is also said to be dependent on their knowledge of such strategies that facilitate reading comprehension (Soodla et al., 2016; Zhang, 2018). Research has revealed that students with greater awareness of their cognitive processes during the reading process will have greater control over these processes and will be better self-regulators. Strategy research (e.g. Dallagi, 2021; Oxford, 1989; Oxford and Nyikos, 1989) has equally examined the different variables having considerable influence on learning strategies. Such variables include the language being learned, language proficiency, degree of metacognitive awareness, gender, attitudes and motivation. While studies by Oda and Abdul-Khadim (2017), and Rachmajanti and Musthofiyah (2017) have examined the gender variable confirming the significant role it plays in reading comprehension, other findings (e.g. Abu-Snoubar, 2017; Zhang, 2018) showed no difference between female and male students.

Mokhtari et al.'s (2018) MARSI-R has been widely used in the literature as a framework in the investigation of learners' metacognitive awareness. This revisited Metacognitive Awareness of Reading Strategies Inventory, initially MARSI (2002), was developed using factor analysis of the 30 items to produce the 15 MARSI-R version with similar reliability and validity (Mokhtari et al., 2018). As displayed in Table 1, this revised version classifies the reading techniques into three major groups: Global Reading Strategies (GLS), Problem-Solving Strategies (PSS), and Support Reading Strategies (SRS).

Table 1: Different reading strategies

Label	Items
Global Reading Strategies	1. Having a purpose in mind when I read 2. Previewing the text to see what it is about before reading it 3. Checking to see if the content of the text fits my purpose for reading 4. Using typographical aids like boldface and italics to pick out key information 5. Critically analyzing and evaluating the information read

Support Reading Strategies	1. Taking notes while reading 2. Reading aloud to help me understand what I'm reading 3. Discussing what I read with others to check my understanding 4. Underlining or circling important information in the text 5. Using reference materials such as dictionaries to support my reading	
Problem Solving Strategies	1. Getting back on track when getting side tracked or distracted 2. Adjusting my reading pace or speed based on what I'm reading 3. Stopping from time to time to think about what I'm reading 4. Re-reading to make sure I understand what I'm reading 5. Guessing the meaning of unknown words or phrases	
15		Overall

Research available to date on this question is still limited in the local context. In a study of Tunisian novice researchers and their difficulties with reading in English, Smaoui and Essefi (2015) assert that "the traditional methods are still in use during the secondary and tertiary levels" (p. 25). Dallagi (2021) studied Tunisian tertiary level students' choice and frequency of reading strategies relying on Mokhtari and Sheorey' (2002) reading strategies taxonomy. One of the key findings of relevance to the current study is that EFL learners do not differ much from each other in terms of their strategy use when reading in English even though they were found to be less comfortable with metacognitive strategies like GLOB and SUP compared to cognitive strategies. Another study by Ben Hedia (2020) revealed that Tunisian students' insufficient metacognitive knowledge was partly behind their low writing ability in the target language. More research certainly needs to determine EFL learners' metacognitive strategies awareness and use in a fundamental academic skill like reading. However, little is known about EFL students' awareness and use of metacognitive strategies in academic reading in this educational context. Besides, teachers in this academic setting often complain about their students' limited academic literacy skills.

RESEARCH QUESTIONS

1. To what extent are Tunisian EFL students aware of their metacognitive strategies in academic reading?
2. What are the metacognitive strategies that EFL students report using?
3. What is the relationship between the reading strategy categories?

The following section describes the methodology followed.

METHODOLOGY

Participants

The study was based on data from 113 tertiary level participants who were students majoring in English in different institutions belonging to the University of Tunis, Tunisia. These participants volunteered to take part in this study by signing a consent form. Female students represented about 78% and the majority (81.6%) were aged between 18 and 23 while more than half were third year students.

Materials

The participants were asked to answer an online questionnaire to report about their awareness of metacognitive strategies and use in academic reading. The researchers used an adapted version of the revised MARSI-R (Mokhtari et al., 2018) inventory that comprised 15 initial items. The questionnaire is divided into three parts with the first one collecting demographic data including the students' academic level, institution, gender and full name to be used in a follow up study. The participants also provided their age and their self-rated description of their profiles as readers using a four-point scale ranging from poor to excellent. The second part provided the respondents with 15 strategy statements to determine their level of awareness of each strategy using a five-point scale. The participants had to choose the options (1) I have **never heard** of this strategy before; (2) I have **heard** of this strategy, but I **don't know** what it means; (3) I have **heard** of this strategy, and I **think I know** what it means; (4) I **know** this strategy, and I **can explain** how and when to use it; and (5) I know this strategy quite well, and I often use it when I read. In the third part, the students rated the same list of strategies relying on a frequency scale ranging from never to always. The researchers used the same taxonomy to elicit information about the students' strategy use in academic reading.

Procedure

The first step in the study involved a convenience non-probability sampling technique after which an online version of a Google Form questionnaire was emailed to the students majoring in English at this university. To identify the level of strategy awareness based on the self-reported descriptions according to the pre-set scale, the researchers categorized the results according to Mokhtari et al.'s (2018) three codes described in the table below. These categories also served to interpret the results from the descriptive statistical analyses.

Table 2: Guide for the interpretation of scores on the MARSI-R instrument (Mokhtari et al., 2018)

Scores	Interpretation
3.5 or higher	High level of awareness
2.5-3.4	Medium level of awareness
2.4 and lower	Low level of awareness

The researchers equally used a semi-structured interview in English with four students from the target sample to explain the questionnaire results. They developed well-defined questions while prompting the interviewees to talk about their reading processes. This instrument comprised five main questions derived from on the inventory. The researchers transcribed the recorded interviews which were coded according to pre-established themes derived from the study framework. These themes included the students' awareness and use of metacognitive strategies during academic reading.

Prior to any statistical analysis, different tests for various assumptions were checked to ensure that the data were adequate for inferential statistical analyses. As the data were deemed to meet the assumptions that the model must satisfy, meaningful conclusions about the population could be obtained from the sample. Hence, Pearson Product-Moment Correlations were computed. The inventory reliability was checked for internal consistency by computing Cronbach's alpha (α) coefficients. Generally, $\alpha \geq 0.7$ is considered as satisfactory. Table 3 displays the different factors, their internal reliability and their KMO.

Table 3: Different factors, their internal reliability and their KMO

Label	Items	Cronbach's Alpha	KMO
Global Reading Strategies	- Having a purpose in mind when I read - Previewing the text to see what it is about before reading it - Checking to see if the content of the text fits my purpose for reading - Using typographical aids like boldface and italics to pick out key information - Critically analyzing and evaluating the information read	.726	.871
Support Reading Strategies	- Taking notes while reading - Reading aloud to help me understand what I'm reading - Discussing what I read with others to check my understanding - Underlining or circling important information in the text - Using reference materials such as dictionaries to support my reading	.731	
Problem Solving Strategies	- Getting back on track when getting side-tracked or distracted - Adjusting my reading pace or speed based on what I'm reading - Stopping from time to time to think about what I'm reading - Re-reading to make sure I understand what I'm reading - Guessing the meaning of unknown words or phrases	.784	
	Overall	.878	

The results are summarized in the following section.

RESULTS

Regarding the first research question on the extent to which Tunisian EFL students are aware of their metacognitive strategies in academic reading, after the calculation of the means on the basis of the MARSI-R inventory interpretation guide (see Table 2 above), it was first deemed important to report the overall metacognitive strategy awareness across all levels (Figure 1). We can clearly see that about two thirds of the students had a low level of awareness that was below 2.5.

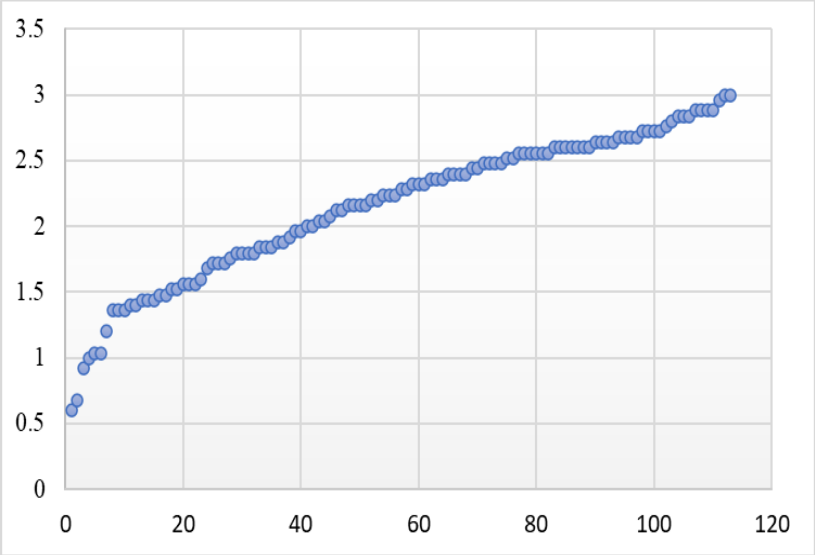

Figure 1: Scatter plot of means of metacognitive strategy awareness across all levels

For the second research question on the metacognitive strategies that these EFL students reported using, the results are displayed in Figure 2. It describes their GRS use with more than half of these students (24.8% always and 29.2% often) reported having a purpose in mind when reading. More than half of them were also found to be frequent users of "previewing the text" to see what it is about before reading it (28.3% always and 30.1% often). Similarly, for the third global reading strategy of checking if the content of the text fits their purpose for reading, only half of these students (31% always and 21.2% often) deployed it. However, less students (31% never and 20.4% rarely) use typographical aids like boldface and italics to pick out key information when reading. Finally, we can see that less than half of these students (18.6% always and 21.2% often) reported critically analyzing and evaluating the information read when reading for academic purposes.

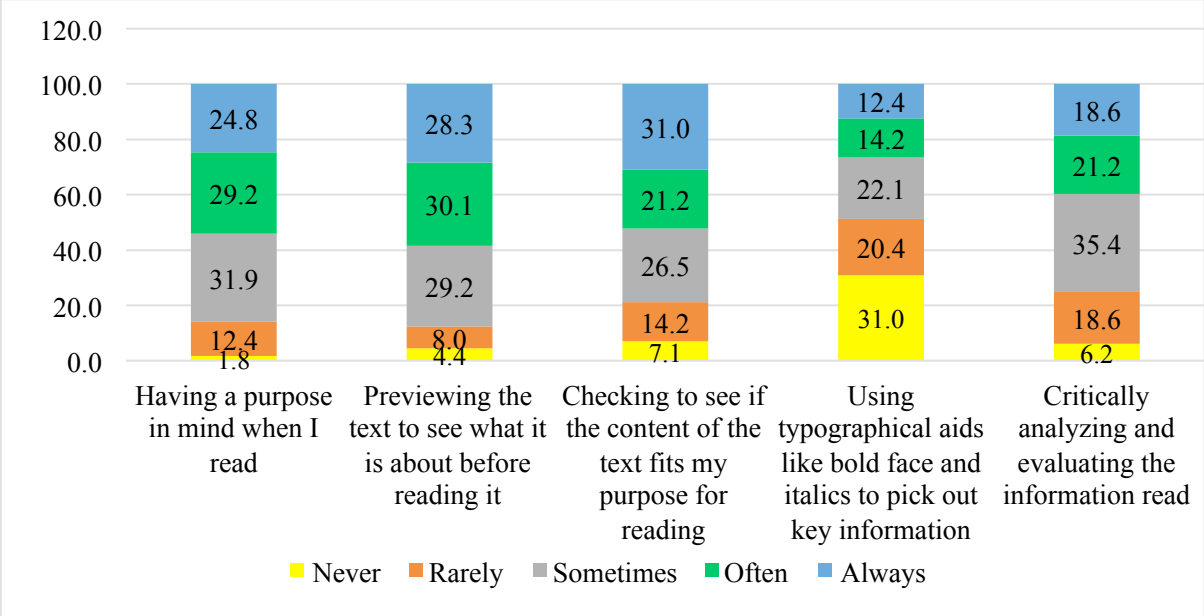

Figure 2: Percentages of global reading strategies (GRS) use

As displayed in Figure 3 and with regard to SRS, the participants reported the most frequently strategy use was underlining or circling important information in the text always

(41.6% always and 24.8% often). Equally important to the students in terms of use (25.7% always and 31% often) was the strategy of taking notes while reading as a support strategy for their reading process. While about one third (38.9% sometimes) use reference materials such as dictionaries to support their reading, they rely on discussing what they read with others to check their understanding less often (37.2% sometimes).

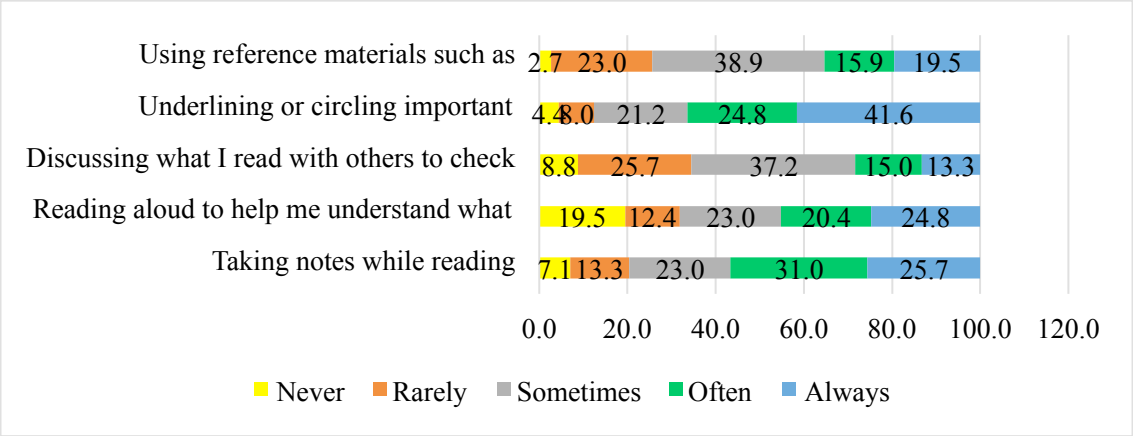

Figure 3*:* Percentages of Support Reading Strategies (SRS) use

Regarding the third strategy category (PSS), the participants reported being more frequent users of all five problem solving strategy types as displayed in Figure 4. In terms of re-reading to make sure they understand what they are reading, two thirds (46.9% always and 28.3% often) rely on this strategy. About 66% (28.3% often and 37.2% always) depend on guessing the meaning of unknown words or phrases when reading academic texts. Around 60 % of these students frequently (31.9 % always and 29.2% often) get back on track when they get side-tracked or distracted during the reading process. About half of these readers (29.2% always and 24.8% often) stated that they adjust their reading pace or speed depending on the nature of the text. While 24.8% always, 26.5% often stop from time to time to think about the reading process. This indicates that only half of them use this strategy frequently.

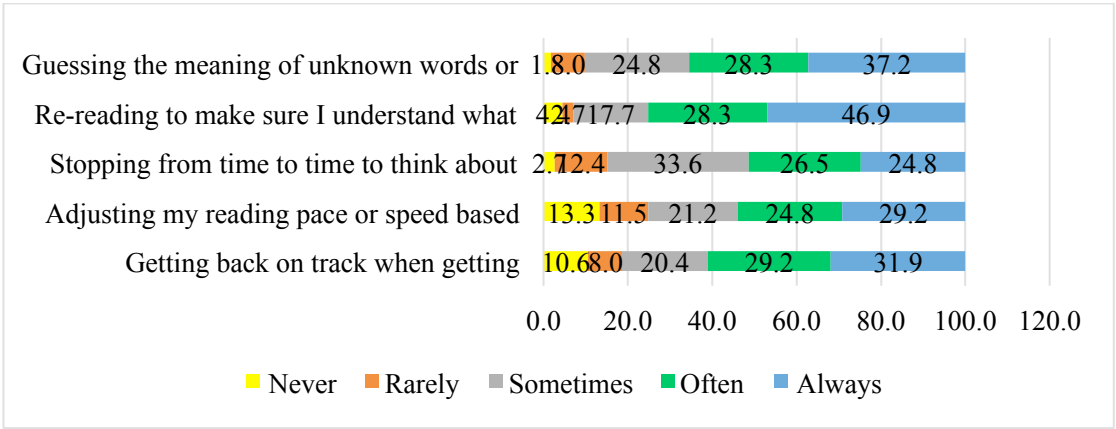

Figure 4*:* Percentages of problem-solving strategies (PSS) use

Table 4 displays the study participants' reported reading ability. As we can see 51.3% consider themselves as good readers while 38.1% rather average readers.

Table 4: Reported Reading Ability

	Frequency	Percent
Poor Reader	4	3.5
Average Reader	43	38.1
Good Reader	58	51.3
Excellent Reader	8	7.1

The qualitative analysis of the semi-structured interviews yielded interesting results providing better insights into the meaning of the descriptive statistical results reported above. As can be seen from Table 5, only one interviewee (Sofia, a female participant) seemed to be aware of the importance of GRS as a metacognitive strategy. This third-year student reported that she generally overviews the text topic by previewing its content (GRS 2) to facilitate her understanding of the text topic. For the second category of problem-solving strategies, only two male second-year students indicated relying essentially on PSS 4. As a matter of fact, Aly (a male student) referred to his use of "repeating the sentences to have a better" understanding (PSS 4) as he stops and reads the sentence again for better understanding. His statements reflected quite a good level of awareness of the importance of this specific metacognitive strategy. He states that "the first time won't be that good. the second time of course is going to be better when it comes to the third time there is fluency" (Aly, male). This indicates the student's awareness of the GRS of re-reading for better understanding. However, only one male student (Leo) reported the support reading strategy of "check[ing] with others to see if there's a similar understanding to the text". The student explained that he simply asked his colleagues about their points of views "about specific parts" to check any differences, then discussed such ideas with them "to check understanding" (SRS 3). The four interviewees' responses were generally indicative of a partial awareness of metacognitive reading strategies that they might be using in academic reading confirming the questionnaire results. In terms of metacognitive strategy use, we can clearly see that it is quite limited for the four participants.

Table 5: Reported Reading Ability

Strategy category	
GRS	First, I usually skim the text from beginning to end. I overview the topic (GRS 2: previewing text) so that I can put myself in the mental state in relation with the text topic
	Skimming, scanning and detailed reading (Sofia, female) GRS 2: previewing text
PSS	By focusing, reading behind the lines and sometimes repeating the sentences to have a better view (Aly, male) (PSS 4)
	to be honest sometimes words like I don't know I stop there and read the sentence again just to make sure that… that I understand the context if you are going to always read when you encounter a text, the first time won't be that good. the second time of course is going to be better when it comes to the third time there is fluency (PSS 4: Re-reading to help ensure I understand what I'm reading) (Aly, male)
	then I re-read the entire text (PSS 4: Re-reading to help ensure I understand what I'm reading) I underline every difficult word. I usually ignore some of them then go back to some of them only just to complete the meaning. They are like puzzles. (Leo, male)
SRS	I do check with others to see if there's a similar understanding to the text I just

	ask for the point of view of my colleagues about specific parts and if there are differences I try to discuss. The most logical answer to me is the most accurate one (SRS 3, discussing what is read with others to check understanding) (Leo, male)
GRS	First, I usually skim the text from beginning to end. I overview the topic (GRS 2: previewing text) so that I can put myself in the mental state in relation with the text topic Skimming, scanning and detailed reading (Sofia, female) GRS 2: previewing text

To answer the third research question, Pearson correlation coefficients between the three metacognitive strategy categories were calculated. Table 6 clearly shows that there is a moderate (.456**) correlation between GRS and SRS, and SRS and PSS (.589**) and a strong correlation (.641**) between GRS and PSS.

Table 6: Correlations between different Metacognitive Strategy Factors

	GRS	SRS	PSS
GRS	1		
SRS	.456**	1	
PSS	.641**	.589**	1

CONCLUSION AND DISCUSSION

The study findings have first revealed these EFL students' low metacognitive strategy awareness and use in academic reading regardless of their academic levels. A mismatch was found between the reported high strategy use and good reading ability, on the one hand, and a predominantly low level of metacognitive strategy awareness on the other hand. At the same time, what was found to be problematic in this specific context is the gap between the expected level of metacognitive strategy awareness and their low to moderate one as reported by the participants. This confirms earlier research findings in the same educational context (Ben Hedia, 2020). Despite the description of their reading ability as average to good, these readers displayed insufficient metacognitive strategy awareness that could be behind their low metacognitive strategy use. This also confirms earlier findings about low reading proficiency in this academic context (Smaoui & Essefi, 2015). These results have implications for reading instruction to EFL students in Tunisia and other similar contexts. One of the pedagogical recommendations on the basis of these findings is the development of L2 readers' knowledge of cognitive processes. This in itself could favour skilled and fluent academic reading. Incorporating metacognitive prompts into process-based teaching is one strategy to develop reading cognitively. L2 learners can use self-regulated reading strategies to plan, integrate, monitor, and control their own reading processes, with the aid of metacognitive instruction, which is a worthwhile attempt to enhance current reading pedagogy. One of the limitations of this study was the absence of reading proficiency measurement with a test. Future research could compare reading test scores to strategy awareness and use.

REFERENCES

Abu-Snoubar, T. K. (2017). English as a Foreign language learners' major and meta-cognitive reading strategy use at Al-Balqa Applied University. *English Language Teaching*, *10*(9), 69-85.

Alami, M. (2016). Cross-gender comparison of metacognitive strategies utilized by Omani students in reading comprehension classes. *International Journal of Applied Linguistics and English Literature*, *5*(4), 20-28.

Alderson, J. C. (2000). *Assessing reading*. Cambridge: Cambridge University Press.

Anderson, N. J. (2002). *The Role of Metacognition in Second/ Foreign Language Teaching and Learning.* ERIC Digest. Washington DC: ERIC Clearinghouse on Languages and Linguistics.

Anderson, N. J. (2005). L2 learning strategies. In Handbook of research in second language teaching and learning (pp. 781-796). Routledge.

Ben Hedia, N. (2020). Transfer in written English discourse: the influence of Arabic and French on Tunisian EFL students' argumentative texts. *Arab Journal of Applied Linguistics*, *5*(2), 1-31.

Carr, N. T. (2006). Computer-based testing: Prospects for innovative assessment. In L. Ducate & N. Arnold (Eds.), Calling on CALL: From Theory and Research to New Directions in Foreign Language Teaching. CALICO Monograph Series 5 (pp. 289–312). San Marcos, TX: CALICO" .

Ducate & N. Arnold (Eds.), *Calling on CALL: From Theory and Research to New Directions in Foreign Language Teaching*. CALICO Monograph Series 5 (pp. 289–312). San Marcos, TX: CALICO.

Dabarera, C., Renandya, W. A., & Zhang, L. J. (2014). The impact of metacognitive scaffolding and monitoring on reading comprehension. *System*, *42*, 462-473.

Dallagi, M. (2021). Recognition and application of reading strategies: case of Tunisian university learners. Journal of Practical Studies in Education, *2*(2), 14-24.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive developmental inquiry. *American Psychologist*, *34*(10), 906-911.

Grabe, W. (2002). Reading in a second language. In R. B. Kaplan (Ed.) *The Oxford Handbook of Applied Linguistics* (pp. 49-59). New York: Oxford University Press.

Kamil, M. L., Afflerbach, P. P., Pearson, P. D., & Moje, E. B. (2010). An Introduction to the Handbook of Reading Research, Volume IV. *Handbook of Reading Research, Volume IV*.

Koda, K. (2013). Assessment of reading. *The Encyclopedia of Applied Linguistics*. In C. A. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*. Blackwell Publishing.

Koda, K. (2005). *Insights into second language reading: A cross-linguistic approach*.Cambridge University Press.

Kuhn, D. & Dean, D. (2004). A bridge between cognitive psychology and educational practice. *Theory into Practice*, *43*(4), 268-273.

Li, Y., & Wang, C. (2010). An empirical study of reading self-efficacy and the use of reading strategies in the Chinese EFL context. *Asian EFL Journal*, *12*(2), 144-162.

Mokhtari, K., Dimitrov, D. M., & Reichard, C. A. (2018). Revising the Metacognitive Awareness of Reading Strategies Inventory (MARSI) and testing for factorial invariance in *Studies in Second Language Learning and Teaching* 219-246.

Mokhtari, K., & Reichard, C. A. (2002). Assessing students' metacognitive awareness of reading strategies. *Journal of educational psychology*, *94*(2), 249.

Mokhtari, K., & Sheorey, R. (2002). Measuring ESL students' awareness of reading strategies. *Journal of Developmental Education*, *25*(3), 2-11.

Mokhtari, K., Sheorey, R., & Reichard, C. A. (2008). Measuring the reading strategies of first and second language readers. In K. Mokhtari & R. Sheorey (Eds.), *Reading Strategies of First- and Second Language Learners*. Norwood, MA: Christopher-Gordon Publishers Inc.

Nunan, D. (2002). Learner strategy training in the classroom: *An action research study. Methodology in language teaching*: *An anthology of current practice*, 133-143.

Oda, H. A., & Abdul-Khadim, M. R. (2017). The relationship between gender and reading comprehension at college level. Journal of Basrah Research: The Humanities Sciences, 42(6), 426–442. https://doi.org/10.33762/ 0694-042-006-019

Olson, M. W., & Gee, T. C. (1991). Content reading instruction in the primary grades: Perceptions and strategies. *The Reading Teacher*, *45*(4), 298.

Oxford, R. L. (1989). Use of language learning strategies: A synthesis of studies with implications for strategy training. *System*, *17*(2), 235-247.

Oxford, R. L., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *The modern language journal, 73*(3), 291-300.

Phakiti, A. (2003). A closer look at gender differences in strategy use in L2 reading. *Language Learning*, *53*(4), 649–702.

Plonsky, L. (2011). The effectiveness of second language strategy instruction: A meta-analysis. *Language Learning*, *61*(4), 993-1038.

Rachmajanti, S., & Musthofiyah, U. (2017). The relationship between reading self-efficacy, reading attitude and EFL reading comprehension based on gender difference. *J-ELLiT (Journal of English Language, Literature, and Teaching)*, *1*(1), 20-26.

Soodla, P., Jogi, A., & Kikas, E. (2016). Relationships between teachers' metacognitive knowledge and students' metacognitive knowledge and reading achievement. *European Journal of Psychology of Education*, *32*(2), 201-218.

Smaoui, C., & Essefi, E. (2015). Reading process as first stage of the publication industry: Have Tunisian novice researchers acquired the appropriate reading skills to do a good literature review. *International Journal of Language and Linguistics*, *3*(1), 22-26.

Teng, M. F. (2019). The benefits of metacognitive reading strategy awareness instruction for young learners of English as a second language. *Literacy*, 1-11. Doi:10.1111/lit.12181

Zhang, L. (2018). *Metacognitive and cognitive strategy use in reading comprehension*. Springer.

Contact email: hanen.dammak@iseaht.rnu.tn