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Metacognitive Awareness of Reading Strategies among Chinese EFL Tertiary Students for Quality Teaching and Learning

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Abstract

Effective reading skills are often viewed as the foundation to learning a foreign language as it is a 'comprehensible input' when learning a language. Therefore, this study aimed to examine EFL tertiary students' metacognitive awareness of reading strategies. The study was conducted in one provincial university in China, involving 424 EFL students. The study utilised an explanatory sequential research design. Data were collected via a reading test, a questionnaire and interviews. The findings revealed that students possessed medium levels of metacognitive awareness with global and problem-solving strategies significantly affecting EFL students' reading comprehension performance.

Keywords: Metacognitive Awareness; Reading Strategies; Quality EFL Teaching and Learning

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1.0 Introduction

Today, English Language is fast becoming the main lingua franca of communication in most countries. According to Seidlhofer (2006), since roughly only one out of every four users of English in the world is a native speaker of the language, most speakers are either using English as a second language (ESL) or English as a foreign language (EFL). Seeing the importance of English, China too has embraced the teaching and learning of EFL at all educational levels, and today the Chinese have become one of the largest English language learners in the world by far. (Jin and Cortazzi, 2002).

Though China has integrated the teaching and learning of EFL for the past few decades, there is grave concern among authorities as a large majority of tertiary students leave universities with rather limited English language proficiency (Hu, Sidhu et al. 2022). Therefore, several researchers, such as Du, Shamida et al. (2022), have investigated the reasons behind this poor performance, and findings have revealed that Chinese EFL learners possess rather limited reading skills.

In learning any language, one is often exposed to all four skills, namely listening, speaking, reading and writing, wherein listening and speaking are referred to as receptive skills through which learners receive language input, whilst speaking and writing are productive skills where learners need to display their oral and written performance. With reading as a receptive language skill, language learners can receive information as 'comprehensible input', and this has attracted a lot of attention from researchers. Levine et al. (2000) who have highlighted that the ability to read academic texts is considered one of the most important skills that both ESL (English as a Second

Language, hereafter) and EFL (English as a Foreign Language, hereafter) university students need to develop in order to perform well in the language.

In the context of China, Chinese EFL tertiary learners need to possess effective reading skills and strategies as they live in a rather homogenous environment where everyone speaks in Chinese, and they are also surrounded by media where Chinese is the main means of communication. With limited exposure and a chance to interact with native English speakers, EFL instructors need to ensure they equip their learners with good reading skills and strategies. More importantly, they need to be critical thinkers that possess critical reading strategies such as metacognitive awareness of how to address a reading text. Henceforth to better understand the status of EFL Chinese learners, the main objective of this study was to examine the EFL students' metacognitive awareness of reading strategies in one provincial university located in Shandong Province, China.

2.0 Literature Review

The following section provides a brief review of the literature on EFL students' current reading performance, metacognitive awareness and reading strategies that contribute to students' reading comprehension.

2.1 EFL Students' Current Reading Performance

Although a large number of higher institutions in the world, including China, have embraced English as a foreign language, Chinese EFL students still possess limited reading performance. According to Ker-hsin and Razali (2023), due to poor reading skills and habits and reading motivation, Malaysian graduates displayed low reading proficiency. Kaya (2015) also revealed that not being exposed to training in reading skills leads to Turkish EFL students' poor reading performance in exams. A similar situation has also been recorded for Chinese EFL students, and their dismal performance has been noted by researchers such as Du, Shamida et al. (2022) and Hu, Sidhu et al. (2022).

2.2 Metacognitive Awareness

In order to develop effective reading skills, students need to have metacognitive awareness of the reading strategies they use when reading. Metacognition was first proposed by Flavell (1976) and was defined as "one's knowledge concerning one's own cognitive processes and products or anything related to them" (p. 232). Flavell (1979) further elaborated that it is "cognition about cognitive phenomena" (p.906). When it is applied to reading, metacognitive awareness or metacognition includes learners' "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). Furthermore, Tuononen, Hyytinen et al. (2023) revealed that there was a positive relationship between the two dimensions of metacognitive awareness and a deep approach to learning and organised studying. Teng and Yue (2023) revealed that there was a significant relationship between metacognition, critical thinking skills and academic writing. Likewise, Daguay-James and Bulusan (2020) revealed that ESL students possessed a high level of metacognitive awareness of reading strategies while they were reading academic texts, among which problem-solving strategies were the most frequently employed strategies. This was also supported by Manh Do and Le Thu Phan (2021), who concluded that students possessed a moderate level of metacognitive awareness of reading strategies, among which problem-solving strategies were the prime choice. This discussion reveals that metacognition plays a critical role in enhancing students' reading performance and should be an integral in all EFL reading classrooms.

2.3 Reading Strategies

Effective metacognitive awareness goes hand-in-hand with a good acquisition of reading strategies. Barnett (1989) states that reading strategies are numerous problem-solving behaviours readers employ in order to understand texts: e.g., skimming, thinking about the title, rereading, and guessing word meanings from context" (p.22). According to Afflerbach, Pearson et al. (2008), reading strategies are "deliberate, goal-directed attempts to control and modify the reader's efforts to decode text, understand words, and construct meanings of the text." (p.368)

Reading strategies have been categorised by several researchers. For example, Block (1986) categorized them into general and local strategies, whilst a notable researcher, Oxford (1990), classified them into the following six categories, memory, cognitive, compensation, metacognitive, affective and social strategies. O'Malley and Chamot (1990) viewed them as metacognitive, cognitive and social/affective strategies. This paper will, however, employ the classification of reading strategies based on Mokhtari and Sheorey (2002). Sheorey and Mokhtari (2001) used the Survey of Reading Strategies (SORS) to measure three categories of reading strategies, namely metacognitive, cognitive and support strategies. In 2002, Mokhtari and Sheorey modified the items in the original SORS and changed the names of the three categories of reading strategies into global, problem solving and support strategies.

According to Mokhtari and Sheorey (2002), global strategies are "those intentional, carefully planned techniques by which learners monitor or manage their reading" (p.4), and problem-solving strategies are "the actions and procedures that readers use while working directly with the text". (p.436) and support strategies are "basic support mechanisms intended to aid the reader in comprehending the text". (p.436).

Though studies on metacognitive awareness have long been investigated by researchers all over the world, there still exists a gap in the literature for a need to examine Chinese EFL students' utilisation of these strategies to better understand their current limited reading performance. Therefore, based on Mokhtari and Sheorey's (2002) classification of metacognitive awareness, the main aim of this study was to explore the EFL students' metacognitive awareness of reading strategies in one provincial university in China. The original study was guided by nine research questions, but this paper will only address the following three research questions:

- What is the EFL students' current reading comprehension performance?
- What is the EFL students' level of metacognitive awareness of reading strategies?
- What is the significant predictor for EFL students reading comprehension performance?

3.0 Research Methodology

The study employed an explanatory sequential research design with a mixed-method approach to examine EFL students' metacognitive awareness of reading strategies. The study was conducted in one provincial university located in Shandong Province, China and involved a total of 424 students who were selected via a stratified random sampling based on their discipline, i.e., English majors and Non-English majors. All the 424 students were sophomores who had been learning English at the university for the past one year and were thus familiar with the teaching and learning of reading. Data were collected via a three-pronged approach employing a reading comprehension test, a questionnaire and interviews. The reading comprehension test was based on reading comprehension passages taken from CET-4, TEM-4 and IELTS reading comprehension tests which are all valid and reliable reading tests prepared by established examination bodies. The questionnaire was aimed at investigating EFL students' self-perception of metacognitive awareness of reading strategies based on Mokhtari and Sheorey's (2002) classification of strategies into global, problem-solving and support strategies.

The reading comprehension test and the questionnaire were administered to all 424 EFL students, whilst a sub-sample of 12 (twelve) volunteer students from both English majors and Non-English majors participated in the semi-structured interviews. The quantitative data were analysed using SPSS Version 22 and SmartPLS 4, whilst qualitative data from interviews were analysed employing NVivo 12 through thematic analysis. According to Creswell & Creswell (2017), the mixed methods data collection method helped to triangulate the data collected while providing greater credibility to the findings obtained.

Finally, adhering to ethics in research, the researchers sought permission from the university concerned and ensured that respondents had given their consent to participate in the study. Likewise, data was kept private and confidential in a password-encrypted laptop.

4.0 Findings

The following section will provide the demographic profile of the respondents, followed by the main findings of this study.

4.1 Demographic Profile of the Respondents

The population sample in this study comprised 424 EFL students from one selected provincial university, wherein 18.2% were males, whilst the remaining 81.8% were females. Meanwhile, in regard to students' perceived English language proficiency, 72.4% considered themselves to possess average proficiency in English, 26.7% with limited proficiency and only 0.9% perceived that they had high proficiency in English. As for the discipline of studies, there were an equal number of English-major and non-English major students who participated in this study.

4.2 EFL Students' Current Reading Comprehension Performance

Research question one explored the reading comprehension performance of EFL students. A reading comprehension test was administered to the EFL students in order to attain information on their current reading comprehension performance. Based on the reading comprehension test, it was found that the EFL students possessed an average level of reading performance ($M=53.38$, $SD=20.568$). Further analysis was done to investigate the distribution of students' levels of reading comprehension performance which is tabulated in Table 1 below.

Table 1: Students' Level of Reading Comprehension Performance (n=424)

Performance Level	Reading Comprehension Score	Number	Percentage
High	75-100	67	15.8
Average	50-74	185	43.6
Limited	0-49	172	40.6

Findings from Table 1 revealed that 43.6% of the EFL students achieved the average level in reading comprehension performance while another 40.6% of the students scored between 0-49, which put them in the limited level, and only 15.8% managed to achieve the high level of reading comprehension performance.

4.3 EFL Students' Level of Metacognitive Awareness of Reading Strategies

Research question two of this study examined EFL students' levels of metacognitive awareness of reading strategies. The data for this research question were obtained through a Survey of Reading Strategies (SORS) questionnaire. The findings are presented in Table 2 below.

Table 2: EFL Students' Level Of Metacognitive Awareness Of Reading Strategies (N=424)

	Mean	SD
Global Strategies	3.47	.541
Problem-Solving Strategies	3.66	.527
Support Strategies	3.35	.478
Overall	3.49	.461

Scale: 1=Never, 2=Seldom, 3=Sometimes, 4= Often, 5= Always

Findings from Table 2 revealed that the overall EFL students' level of metacognitive awareness of reading strategies was moderate (M=3.49, SD=.461). Problem-solving strategies were the most frequently used strategies by the EFL students when reading, followed by global reading strategies and support strategies, which were the least frequently used among the three reading strategies. In regard to the usage level, the mean score for problem-solving strategies (M=3.66, SD=.527) reflected a slightly high usage level of the strategies among the EFL students. Meanwhile, the mean score for global strategies (M=3.47, SD=.541) and support strategies (M=3.35, SD=.478) displayed that these two strategies were moderately used by EFL students when reading.

Similar findings were also found during the interview sessions. Most of the students highlighted that they did multiple readings and inferencing to fully understand what they read. For instance, Respondent 11 mentioned that she practised inferencing and guessing when encountering difficulties in understanding what she read. She stressed that: "When I have reading comprehension problems, I usually don't know the meaning of the word, but I must know the meaning of the word in front of it and behind it, so I guess it, and make it coherent into a sentence as long as it can be read,". A similar response was echoed by Respondent 9 who mentioned that, "If I can't understand this sentence, I can read the last sentence, the next sentence, whether it has a turning word like "however", and then infer it continuously, and then check some of the corresponding answers in the questions, and then guess it repeatedly." This shows that most of the students used problem-solving strategies more than the other two strategies to help them comprehend what they read.

4.4 Significant Predictor for EFL Students' Reading Comprehension Performance

Research question three investigated the significant predictor for EFL students reading comprehension performance among the three reading strategies. The analysis was presented in Figure 1, and in-depth data was displayed in Table 3.

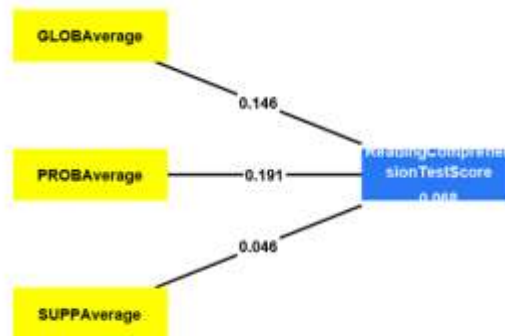


Fig. 1: Significant Predictor for EFL Students' Reading Comprehension Performance

Table 3: Significant Predictor for EFL Students' Reading Comprehension Performance

	Standardised coefficients	t value	p-value
Global Strategies	0.146	2.096	0.037
Problem-solving Strategies	0.191	2.711	0.007
Support Strategies	0.046	0.729	0.466

Based on the data analysis using SmartPLS 4, it is found that only global reading strategies (t=2.096, p=0.037) and problem-solving strategies (t=2.711, p=0.007) have a significant effect on EFL students reading comprehension performance. Furthermore, between the two, problem-solving strategies was the most significant predictor for EFL students reading comprehension performance as the t value was higher than global reading strategies.

5.0 Discussion

The overall results indicated that EFL students possessed an average level of reading comprehension. This is reflected in their performance in the reading comprehension test that was administered to them, in which almost half of the students achieved average scores. This finding is in contrast to the findings in Ker-hsin and Razali (2023)'s study that EFL students displayed low reading proficiency and Kaya (2015)'s study that EFL students displayed poor reading performance.

Secondly, the findings also revealed that EFL students have an average level of metacognitive awareness of reading strategies. Similar findings were found by Manh Do & Le Thu Pan (2021) and Meniado (2016), but a contradictory finding was seen in Daguay-James and Bulusan (2020)'s study that ESL students possessed a high level of metacognitive awareness of reading strategies while they are reading academic texts. Nonetheless, in all these studies, including the current study among Chinese EFL students, indicated that, problem-solving strategies were also the most frequently employed strategies. This shows that readers are able to employ actions and procedures that can enhance their reading ability.

The findings in this study revealed that Chinese EFL students' least employed strategies were support strategies indicating that they were not able to utilise ready resources such as dictionaries, thesaurus and other help resources where they can go for help to enhance their reading strategies.

Furthermore, the results of this study also indicated that only global reading and problem-solving strategies have a significant effect on EFL students' reading comprehension performance. On the contrary, Alsamadani (2009) revealed that none of the three categories of the reading strategies predicted the EFL Saudi students' reading comprehension performance, while students' prior knowledge, reading enthusiasm, time on task, reading purpose and vocabulary were found to be able to influence students' reading comprehension.

6.0 Conclusion & Recommendations

These findings imply that EFL students' average reading comprehension abilities may most probably be due to their lack of knowledge and awareness of the effective use of reading strategies. This could most probably be due to teachers teaching to the test as a majority of them are rather exam-oriented in helping students prepare for their public examinations such as CET-4 and TEM-4. Henceforth, it is recommended that EFL instructors enhance EFL students' learning environment by providing explicit help in equipping students with metacognitive awareness of reading strategies so that they can become more effective, critical and autonomous readers. Likewise, EFL teachers need to be provided with more training so that systematic integration of metacognitive awareness of reading strategies can be integrated effectively into EFL classrooms in China.

Finally, there is no denying the findings cannot be generalised to the total population due to the limited sample size that involved only 424 students from only one provincial university in China. Moreover, the questionnaire explored students' self-perceived strategy use, and the limitation lies in the fact that they may have provided socially accepted responses. Henceforth, future studies should involve a larger population and multiple research instruments, such as reflective journals and classroom observations, to further triangulate data collected from questionnaires and interviews. Nonetheless, this study has shed light on the Chinese EFL students' metacognitive awareness of reading strategy use so that strategies such as strategy training can be conducted in reading classrooms to equip students with more effective reading strategies, as reading is often said to be the pillar of success for all learning.

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None

Paper Contribution to Related Field of Study

This study has both practical and theoretical contributions to the field of knowledge on reading in the EFL context.

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