Essence of Metacognitive Awareness Strategies in Acquiring/ Developing Proficiency in Different Foreign Language Skills: An Effective Language Learning Experience

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Abstract

With metacognitive awareness strategies, learners are equipped with the responsibility of understanding their learning process, including their strengths and weaknesses. This allows them to employ necessary learning strategies to ensure an effective language learning experience, which ultimately leads to the development and improvement of different language skills. The present study explores the concept of metacognitive awareness strategies to unveil its relationship with the development of proficiency in different foreign language skills. The study further looks into the perceptions of randomly selected foreign language learners from different locations to ascertain their take on the subject matter. However, a total of 107 research participants which include foreign language students and university lecturers participated in this research. Data was collected using a digitally designed questionnaire. The research further made use of Jamovi statistical software to compute the research data. On the other hand, the T-test was used to validate the hypotheses developed for the research. The findings provided a clear understanding of the metacognitive practices that foreign language students can adopt to develop and improve proficiency in various language skills of the target language. The findings further highlighted the use of feedback in the form of individualized instruction, introducing this learning method to learners' curriculum, and training language learners on the development and understanding of the effectiveness of metacognitive strategies as a means of tackling challenges that are associated with the use of this learning method.

Keywords: *Metacognition, Metacognitive Awareness Strategies, Foreign Language, Foreign Language skills.*

1. Introduction

The effectiveness of metacognitive strategies lies in the practitioners' awareness of these strategies to ultimately maximize their potential. However, the metacognitive awareness strategy implies learners' awareness and control over their learning process. Do and Phan

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(2021), described metacognitive awareness as a situation where individuals take cognizance of the best techniques to employ them as a means to regulate comprehension and the requisite strategies that align with the given task.

The influential nature of metacognitive awareness strategies lies in the practioners' capacity to augment self-regulation. In other words, individuals who exhibit metacognitive awareness can effectively observe and assess their progress in the process of acquiring knowledge, comprehending concepts, and subsequently modify their learning strategies as needed. Individuals possess a heightened ability to discern their aptitudes and limitations across various domains of knowledge acquisition, thereby enabling them to organize their exertions and resources with greater efficacy. Through the active practice of self-regulation, learners can adapt and adjust their learning strategies, proactively seek out supplementary resources or assistance as necessary, and demonstrate perseverance in the face of obstacles.

Several scholars have recorded various types of metacognitive awareness (Brown & Seagar, 1987; Jacobs & Paris, 1987; Schraw & Moshman, 1995; Schraw 2001). Do and Phan (2021) categorized metacognitive awareness into three distinct types: declarative, procedural, and conditional knowledge. Schraw (2001), defined declarative knowledge as an individual's understanding of various concepts and factors that influence their performance. The scholarly work further defined Procedural knowledge as the understanding and ability to perform specific tasks or actions. Maftoon & Fakhri, Alamdari (2020), illustrated an instance of this knowledge when learners employ various strategies to address challenges, such as consulting reference materials to comprehend unfamiliar vocabulary while engaged in the act of reading. Meanwhile, conditional knowledge aligns with the understanding of the rationale behind selecting and employing specific strategies.

Metacognitive awareness strategy is seen as one of the significant factors that help learners in developing proficiency in different language skills such as reading, writing, listening, and speaking. In developing these skills, Deliany & Cahyono (2020), noted that various metacognitive reading, writing, listening, and speaking strategies are employed by language learners. However, each of the strategies has its procedures and requirements.

1.1. Problem statement

Extensive studies on the concept of metacognitive strategies have been explored. The major concerns of this literature are only limited to the identification of the role of these strategies in the development and improvement of proficiency in various language skills and, the influence of factors such as age, gender, level of proficiency and cultural background on the utilization of these strategies in language learning, among others. However, few researchers have paid attention to the views of foreign language learners and language instructors on the utilization of these strategies. Based on this identified gap, the present research strives to highlight and explore this important aspect of metacognitive awareness strategies.

1.2. Research questions

a). Is there a relationship between metacognitive awareness strategies and proficiency in language skills?

b) Is there variation in the effectiveness of metacognitive awareness strategies across various language skills?

2. Literature Review

Several concepts play a crucial role in the better understanding of the concept of metacognitive awareness strategies. This section is dedicated to the exploration of these concepts.

2.1. A Brief Overview of the Concept of Metacognition

The concept of metacognition was introduced in the language learning domain (cognitive psychology) over three decades ago (Goh, 2008), to improve language acquisition, comprehension, and production. Nevertheless, the concept of metacognition has been described as the cognitive process of reflecting upon and being aware of one's thinking or the capacity of individuals to be cognizant of their mental processes (Nelson, 1996). Abdelrahman (2020), defined metacognition as the understanding and awareness that individuals possess regarding the process of learning. As a component of an individual's accumulated knowledge and a set of interconnected concepts, Takallou (2011), asserted that metacognition is characterized as relatively stable, developing early in the learning process, and representing a conceptualization of a learner's experiences.

Teng (2020), recognized the two vital components of metacognitive knowledge and metacognitive strategies. While the former entails understanding one's learning processes, the resources necessary to complete a task, and one's areas of strength and growth; the latter involves the capability of learners to effectively oversee, direct, control, and steer their learning endeavors. According to Abdelrahman (2020), learners are equipped with the necessary information in metacognitive knowledge whereas learners are equipped with several methods such as goal setting, strategy-choice, progress-tracking, and course-correction in metacognitive strategies.

The Plethora of scholarly works (Brown, 1987; Jacobs & Paris, 1987; Schraw & Moshman, 1995; Schraw 2001), has documented different forms of metacognitive knowledge. According to the categorization proposed by Do and Phan (2021), metacognitive knowledge can be classified into three distinct types, namely declarative, procedural, and conditional knowledge. Schraw (2001), asserted that declarative knowledge refers to an individual's comprehension of different concepts and factors that have an impact on their performance. The scholarly literature provides a more precise definition of Procedural knowledge as the comprehension and proficiency in executing particular tasks or actions. In a study conducted by Maftoon and Fakhri Alamdari (2020), an example of this phenomenon was demonstrated wherein learners utilize different strategies to overcome difficulties, such as referring to supplementary materials to understand unfamiliar vocabulary while actively engaging in the process of reading. In the context of this discussion, it is worth noting that conditional knowledge is closely associated with the comprehension of the underlying logic and reasoning that informs the decision-making process when it comes to the selection and utilization of particular strategies.

The fundamental metacognitive strategies encompass the act of establishing connections between novel information and preexisting knowledge, the deliberate selection of cognitive processes, as well as the thoughtful planning, monitoring, and evaluation of one's thinking processes, Lee et al., (2021). These entities assist individuals in the regulation and supervision of educational endeavors, encompassing the deliberate management of learning, strategic planning, and selection, tracking of the academic process, rectification of errors, evaluation of the efficacy of learning strategies, and adaptation of instructional habits and techniques as deemed appropriate.

2.2. Metacognitive Awareness Strategies

The relevant features of metacognitive awareness strategies have paved the way for further development of various reading, writing, listening, and speaking strategies that language learners can employ for effective language acquisition.

Metacognitive reading strategies, encompass the conscious awareness of one's reading process and the utilization of appropriate techniques to improve reading comprehension. Here, readers actively control and monitor their understanding while reading, Do & Phan (2021). In this situation, individuals employ the use of reading strategies, which Sheorey & Mokhtari (2001), categorized into three, namely global reading, problem-solving and support reading. While in the global method, readers are equipped with the pre-knowledge of comprehension; the problem-solving technique allows the readers to monitor the reading process by adjusting the reading pace, rereading the material, reading aloud, and making educated guesses about the meaning of difficult words. The final strategy deals with summarizing the key points and further reading additional materials. By deliberately employing these strategies, individuals can enhance their ability to comprehend and retain information from written texts, thereby influencing their writing endeavors.

Regarding the metacognitive writing strategy awareness, Goctu (2017), maintained that this strategy involves the capacity to monitor and control one's writing habits on purpose. It entails being conscious of one's mental processes, choices, and behaviors when one writes. Scholarly works such as Oxford (2011), Goctu (2017), and Zimmerman (2000), among others, have explored the writing domain to investigate the role of metacognitive writing strategy awareness. However, one common finding of the authors is the establishment of the fact that this strategy aids in the development of writing skills.

Oxford (2011), further maintained that individuals can also improve their listening comprehension by using metacognitive listening tactics. Rost (2002), highlighted these tactics as involving paying attention to one's listening habits, checking in to see how well one is comprehending, and then adjusting as necessary. Nevertheless, Goh & Taib (2006), acknowledged the use of relevant metacognitive processes such as planning, monitoring, and evaluating to improve the listening skills of language learners. The scholarly work further extended its survey on the speaking aspect of this strategy. It however concluded that language learners' fluency and accuracy in the target language can be improved through the application of these cognitive processes.

Generally, the metacognitive processes that are common among the reading, writing, listening, and speaking strategies are categorized as planning and goal setting, self-monitoring, selection and adapting learning strategy, problem-solving, and self-regulation processes.

2.3. The Role of Metacognitive Awareness Strategies in Language Learning

The significant features of metacognitive awareness strategies have attracted lots of interest from numerous researchers; especially those in the field of language education. Several studies (Boekaerts, Pintrich, & Zeidner, 2000; Bolitho et al., 2003; Eilam & Aharon, 2003) have been dedicated to investigating the significance of metacognitive awareness about students' learning process across various academic disciplines. Scholarly works such as Mokhtari & Reichard, 2002; Palmer & Goetz (1988); Victori & Lockhart (1995); Zimmerman & Schunk (2001); and Purpura, (1997), have also provided substantial evidence indicating that the metacognition of learners has a direct impact on both the process and the results of their learning.

The implementation of metacognitive teaching in the educational process has the potential to enhance students' performance and facilitate the attainment of educational objectives. As per the findings of Chan et al., (2021), the prominent influence of metacognitive knowledge is evident in numerous cognitive endeavors associated with language utilization. These encompass the verbal dissemination of information, persuasive oral communication, auditory comprehension, textual comprehension, written expression, and language acquisition, among others.

In terms of language acquisition, Zhang & Goh (2006), underscore the importance of integrating metacognitive knowledge into learner training programs, thereby enhancing the efficacy of the learning process. Lee et al., (2021), maintained that language learners may be constrained in the utilization of various metacognitive strategies by factors such as lack of awareness, subjectivity, limited domain-specific transfer, and situational constraints. The motive behind the use of metacognitive strategy is easily defeated if language learners are not aware of their thinking and learning process. In such a case, it is suggested that metacognitive strategies should be properly integrated into the training program of language students.

Subjectivity factors exist when learners' perception of a supposed cognitive process does not reflect his or her cognitive ability. Goh & Taib (2006), described limited domain-specific training as a situation where learners may have difficulty transferring their metacognitive abilities from one domain or subject area to another. On the other hand, situational constraints align with external factors such as time and effort, distractions, and environmental factors.

3. Research Methodology

3.1 Study Approach

The present study made use of a quantitative research methodology to investigate the relationship between metacognitive awareness strategies and proficiency in various foreign language skills. However, based on the main objective of the study, the perspectives of two important stakeholders; foreign language students and language instructors were equally taken into account through the use of an online survey.

3.2. Study Sample

The total number of the research respondents is one hundred and seven. This comprises fifty-nine (59) foreign language students and forty-eight (48) university lecturers who are currently teaching foreign languages. However, these participants were randomly selected from various locales by the researchers using online platforms and online discussion boards. Meanwhile, basic demographic information about the participants was equally recorded. The record showed that there is a disparity in the distribution of the demographic variables such as age, and gender, among others. On the other hand, the research took cognizance of the relevance of ethical considerations; wherein the informed consent was acquired from the participants to safeguard their privacy. The table below represents the demographic information of the research respondents.

Table 1. Demographic Variable Sample

Category	Variables	Frequency	Percentage
Gender	Male	42	39.3%
	Female	65	60.7%
Age	20-29 years	55	51.4%
	30-39 years	35	32.7%
	40-49 years	12	11.2%
	50 years above	5	4.7%
Academic Qualification	Bachelor's Degree	57	53.3%
	Master's Degree	41	38.3%
	PhD.	9	8.4%

Years of Experience	Less than 5 years	64	59.8%
	5-10 years	28	26.2%
	10 years above	15	14.0%

The above table is summarized as follows:

i). The research participants comprised of 65 females and 42 males.

ii). Their age ranges from 20-49 years and 50 years above.

iii). The majority of the research participants are bachelor's degree holders, and they are 57 (53.3%) in number. On the other hand, the Ph.D. holders are fewer in number (9 in total).

iv). However, the largest proportion of the participants has less than 5 years of experience, while those 15 participants have more than 10 years of experience.

3.3. Study instrument

The basic tool used for the collation of the research data is a questionnaire. However, this survey tool comprises three basic components which are discussed below.

1.The first component comprises the demographic information of the research participants, such as age, gender, and academic qualifications among others.

2.The subsequent section, which is section B focuses on the validation of the two proposed hypotheses for the research. This part is further divided into two subsections, as listed below:

i). There is a relationship between metacognitive awareness strategies and proficiency in language skills.

ii). There is variation in the effectiveness of metacognitive awareness strategies across various language skills.

3.4. Validity of the instrument

The two hypotheses proposed for this research were validated by the research respondents comprising fifty-nine (59) foreign language students and forty-eight (48) university lecturers. Nevertheless, the views shared by these participants regarding the survey's topics under the subsections of the Section B were modified and updated as necessary to incorporate the suggestions provided by the participa

3.5. Statistical Measures of the Data

The following sets of statistical tests were applied to the data:

i). Mean, standard deviation, t-value, standard error, and probability values (p-values) are computed for each hypothesis.

ii). Each hypothesis is tested using a T-test to determine whether it should be rejected or accepted.

iii). All statistical metrics were randomized using Jamovi's statistical program.

iv). The data was presented using descriptive statistics tables.

4. Results

This section presents and analyzes the views of the research participants in regard to the questionnaire, which also aligns with the two research hypotheses.

a).H1: There is a relationship between metacognitive awareness strategies and proficiency in language skills.

Below given are the survey items for the above research hypothesis.

i). I am conversant with the use of metacognitive awareness.

ii). Frequent use of these strategies improves language skills.

iii). Language learners perform better in language-related tasks whenever they use these strategies.

iv). Learners' self-assessments accurately reflect their cognitive abilities.

v). Metacognitive awareness strategies are time-consuming.

Table 2. Metacognitive awareness strategies and language skills

Survey Items	Mean	Standard Deviation	T-value	Standard Error	Degree of Freedom	P-value
Q1	4.2	0.89	2.35	0.15	106	0.002
Q2	4.56	0.72	3.78	0.12	106	0.001
Q3	4.32	0.83	2.89	0.16	106	0.003
Q4	3.98	1.06	1.67	0.20	106	0.003
Q5	2.67	0.92	0.87	0.14	106	0.003

The above table represents survey items contained in the first hypothesis. However, t-tests were conducted to furnish statistical validation for the hypothesis. The comparative analysis involved assessing the mean responses for each survey question about the neutral value of 3.0, which serves as a representation of the null hypothesis's state of neutrality. The t-value, as employed in t-test analysis, quantifies the extent of deviation from the null hypothesis, while duly considering the intrinsic variability present within the dataset, relative to the mean value. The standard error is a statistical metric employed to estimate the range of uncertainty surrounding the sample mean. Degrees of freedom (df) pertaining to the quantity of autonomous data points are accessible to conduct statistical analysis. Lastly, it is imperative to acknowledge that the p-value serves as a quantification of the likelihood of witnessing an occurrence as atypical as the one acquired, assuming that the null hypothesis is accurate. Meanwhile, the above table is summarized as under:

i). The mean score of the first item (4.2), together with the p-value (0.002) suggests a moderate agreement among the participants on knowing the utilization of metacognitive strategies. Although, a relatively low standard deviation (0.89) indicates that there is little variation in responses.

ii). The high mean score (4.56) of the second survey item indicates that there is a positive agreement among the respondents that the frequent use of metacognitive awareness strategies improves learners' language skills.

iii). The average responses of the participants in the third item indicate that language learners tend to do better when they apply metacognitive strategies in any language-related task. This is evident in the mean score which is 4.32.

iv). In the fourth item, there is no sufficient evidence to conclude that learners' self-assessment accurately reflects their cognitive abilities. This is based on the mean score which is 3.98. The t-value which is 1.67 and the p-value (0.003) implies that learners tend to encounter limitations when accessing their cognitive abilities.

v). Finally, the mean score (2.67) of the fifth survey item shows a moderate impression of time consumption, therefore respondents in general may believe that metacognitive awareness methods take a fair level of time investment.

b). H2: There is a variation in the effectiveness of metacognitive awareness strategies across various language skills.

Below given are the survey items for the above hypothesis.

i). Metacognitive awareness strategies improve overall language skills.

ii). The effectiveness of these strategies varies across various language skills.

iii). These strategies are more effective in reading and writing as compared to other language skills.

iv). These strategies promote cultural understanding in language learning.

v). These strategies provide a platform for effective language learning.

Table 3. Variation in the effectiveness of metacognitive awareness strategies across various language skills

Survey Items	Mean	Standard Deviation	T-value	Standard Error	Degree of Freedom	P-value
Q1	4.28	0.74	2.18	0.007	106	0.002
Q2	4.12	0.81	1.87	0.08	106	0.002
Q3	4.56	0.68	3.41	0.07	106	0.001
Q4	3.92	0.89	1.54	0.09	106	0.003
Q5	4.42	0.72	2.85	0.07	106	0.002

The above table is interpreted as follows:

i). There is a high mean score (4.28) in the first survey item. Also, the p-value (0.002) falls below the conventional threshold of 0.05; it indicates that there is a statistically significant relationship between the implementation of metacognitive awareness strategies and the enhancement of overall language proficiency.

ii). The mean score of the second item which is 4.12 suggests that positive agreement among the research participants that the effectiveness of metacognitive awareness strategies varies across language skills.

iii). The research participants tend to favor the effectiveness of these strategies in reading and writing compared to other language skills. This is evident in the mean score which is 4.56 and a relatively low number of disparities among the respondents (0.89).

iv). In the fourth item, the mean value stands at 3.92, suggesting that, on average, participants expressed a moderate level of agreement regarding the efficacy of metacognitive awareness strategies in fostering cultural comprehension within the domain of language acquisition.

v). The last survey item has a p-value of 0.002. This shows that there is substantial evidence that metacognitive awareness strategies serve as a foundation for proficient language acquisition given that the p-value is considerably lower than the conventional significance level of 0.05.

5. Discussions

The present study investigated the concept of metacognitive awareness strategy, exploring its relationship with the development and improvement of proficiency in various foreign language skills, such as reading, writing, listening, and speaking skills. Nevertheless, the research extended its investigation to exploring various perspectives of foreign language learners and foreign language university lecturers. The views of these relevant stakeholders provided important insights into the understanding of the subject matter. The responses of these participants align with the two research hypotheses developed for the research.

The first hypothesis explores the relationship between metacognitive awareness strategy and proficiency in foreign language skills. Based on the responses of the research participants on the provided survey items, it can be deduced that these strategies help language learners in developing their various language skills. The four basic language skills that have already been identified in the research are the reading, writing, listening, and speaking. According to Rost (2002), each skill has its requirements and procedures. For reading skill, metacognitive reading awareness strategies are employed by learners in language learning. This also extends to language skills (metacognitive writing awareness strategies, metacognitive listening awareness strategies, and metacognitive speaking awareness strategies).

Another important finding in the first hypothesis is the acknowledgement of the research participants on the effectiveness of frequent use of these strategies. This infers that the respondents are already aware of the benefits of these strategies. According to Goh & Taib (2006), this is among the steps that are required for the effectiveness of this learning strategy. However, this further emphasizes the significance of encouraging metacognitive awareness and autonomy among language students.

Challenges in the use of this strategy were also acknowledged by the research participants. However, these challenges were identified as a lack of accurate self-assessment, and time consumption by the learners of the said learning strategy. The first factor that reflects the subjective nature of the metacognitive strategies entails that language learners sometimes fail to accurately present their learning process. Meanwhile, it is worth noting that in metacognitive awareness strategies, learners are equipped with the responsibility of knowing and understanding their cognitive or learning processes through self-assessment. This allows them to strategize and adopt learning method that works for them. However, it becomes a problem if the learning or cognitive process identified by the learners does not reflect their performance. In such a case, Dunlosky & Lipko (2007), suggested that learners can be encouraged to engage in self-assessment activities and inculcate a positive mindset towards metacognitive learning strategies. Regarding the time constraint of these strategies, the authors further maintained that learners should be made to understand time management. However, this will not only make them allocate appropriate time for metacognition but will also provide a better avenue for habitual practice.

Meanwhile, the second hypothesis explores the variation in the effectiveness of metacognitive awareness strategies across various language skills. The present study has initially proved the fact that metacognitive awareness strategy helps with the development and improvement of language skills such as reading, writing, listening, and speaking skills. However, it is also significant to explore the effectiveness of this learning strategy across these language skills. Nevertheless, there is a highly positive response from the research participants regarding this. The reading and writing skills are seen to be the language skills where the effectiveness of this learning method is obvious. According to Chan et al., (2021), these two skills are task-based in nature. Hence, learners are likely to unconsciously employ the use of this learning method whenever they engage in reading

or writing activities. Another point raised by Goctu (2017) in support of this view is the regulatory and reflective nature of reading and writing skills.

Furthermore, the fourth and fifth items in the second research hypothesis reveal that the metacognitive awareness strategy not only provides language learners with the platform to learn language but also fosters cultural understanding regarding language acquisition. As per the findings of Lee et al., (2021), through the use of metacognitive methods, students increase their sensitivity to and respect for cultural differences. Also, Abdelrahman (2020) maintained that this learning method sets students up for success in learning and using a language by encouraging skills like self-control, forethought, analysis, flexibility, metalinguistic awareness, and transferability.

Generally speaking, the present study has been able to establish that there is a relationship between metacognitive awareness strategies and proficiency in foreign language skills. This is based on the fact that this learning method provides a substantial contribution to students' language learning journeys and eventual competency in reading, speaking, writing, and listening skills; this is achievable when this learning approach is included in language education and paired with other successful teaching approaches.

6. Conclusion

The successful implementation of metacognitive strategies relies upon the language learners' cognizance of these strategies and the subsequent optimization of their potentialities. However, the concept of metacognitive awareness strategies entails the cognitive faculties of learners, wherein they possess a heightened sense of self-awareness and exert deliberate control over the intricacies of their individualized learning processes. Through the deliberate and mindful practice of monitoring, regulating, selecting, and adapting strategies, engaging in reflection, and embracing self-directed learning, learners assume an active and participatory role in their personal language learning experience.

Generally speaking, this learning method has proven to be effective in the acquisition and improvement of various language skills, such as reading, writing, listening, and speaking. On the other hand, each of these skills has its metacognitive strategy. More so, the metacognitive processes that are common among the reading, writing, listening, and speaking metacognitive strategies are categorized as planning and goal setting, self-monitoring, selection and adapting learning strategy, problem-solving, and self-regulation.

Additionally, the cognitive demands and techniques for the effective execution of the various linguistic skills are different. Skills like reading and writing may benefit greatly from the use of metacognitive awareness tactics as they need more conscious planning, monitoring, and self-regulation as compared to other language skills. Conversely, the study recognized time constraints and subjectivity as the limitations of the use of this learning method. However, these challenges can be overcome by teaching language learners time management, training language learners on the use of this learning method and its effectiveness, providing feedback in the form of individualized instruction to the language learners, and further introducing this learning method to learners' curriculum. With these, language learners can effectively develop proficiency in the overall foreign language skills.

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