The Relationship between Metacognitive Strategies and Iraqi EFL Learners' Reading Comprehension Skills

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Abstract:

This study explored the correlational relationship between the course materials of Linguistics, Literature and Translation M.A. Programmes, and postgraduates' metacognitive strategies. This investigation was conducted in respect to the study samples' reading comprehension skills. The study aimed to exploit the impact of M.A. course materials on targeted postgraduates' metacognition. It also aimed to find out the extent to which students' metacognitive abilities were more affected by the course materials. Likewise, it sought to discover the obstacles that the study participants encountered while employing metacognitive strategies. The study adopted a quantitative approach. Moreover, pre-term and post-term questionnaires were given, and then a pretest and a posttest were also administered for the collection of quantitative data. Mokhtari and Sheorey's (2002) Survey of Reading Strategies was employed. The study indicated that there was a positive correlation between M.A. course materials and postgraduates' metacognitive strategies. Linguistics students were ranked first followed by Literature students, while Translation students were the least who received the enhancement of their metacognitive strategies. Based on the research findings, Techniques about metacognitive strategies are to be incorporated into the syllabus of Literature and Translation Studies. Also, training sessions and workshops should be held for both EFL learners and instructors about the importance of metacognition in EFL learning environment. Last but not least, self-reflection and critical thinking should be promoted in the classroom.

Keywords: (Metacognition, Metacognition Strategies, Reading Comprehension, Reading Skills).

العلاقة بين الاستراتيجيات الميتاذهنية وتطوير مهارات القراءة لدى طلاب متعلمي اللغة الانكليزية العراقيين

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الملخص:

تستكشف الدراسة العلاقة الترابطية بين مواد برنامج الدراسات العليا والاستراتيجيات الميتاذهنية لطلبة الدراسات في قسم اللغة الانكليزية بفرعيه اللغة والادب وكذلك قسم الترجمة. وتم اجراء البحث بخصوص مهارات استيعاب القراءة لدى الطلبة المذكورين. تهدف الدراسة في معرفة مواد برنامج الدراسات العليا على القابليات الميتاذهنية للطلبة اعلاه. وتهدف الدراسة كذلك في ايجاد الى اي مدى تأثرت الاستراتيجيات الميتاذهنية لطلبة الدراسات العليا من خلال مواد البرنامج المذكور. وكذلك بحثت الدراسة في معرفة المعوقات التي تواجه الطلبة عندما يقومون بتطبيق الاستراتيجيات الميتاذهنية. تم اعتماد اسلوب البحث الكمي. وعلاوة على ذلك، تم اجراء استبيانات قبل وبعد برنامج الدراسات العليا ومن ثم اجراء اختبارات ايضا قبل وبعد البرنامج المذكور للحصول على البيانات المطلوبة. استخدمت الدراسة الاداة اللغوية (استبيان لاستراتيجيات القراءة) للمؤلفين خضير مختاري وريتشارد شوري (٢٠٠٢). وخلصت الدراسة الى وجود ترابط ايجابي بين مواد برنامج الدراسات العليا والاستراتيجيات الميتاذهنية للطلبة الدراسات العليا. حيث جاء طلبة فرع اللغة اولا يتبعهم طلبة فرع الادب ومن ثم فرع الترجمة بخصوص تحسّن وتطوّر الاستراتيجيات الميتاذهنية لديهم. واعتمادا على نتائج الدراسة، يجب ادخال اساليب معينة حول الاستراتيجيات الميتاذهنية في جدول الدروس لفرع الادب وقسم الترجمة، وكذلك إقامة جلسات تدريبية وورش عمل لكل من طلبة اللغة الانكليزية والاساتذة حول اهمية الاستراتيجيات الميتاذهنية في بيئة تعلم اللغة الانكليزية كلغة اجنبية. اخيرا وليس اخرا، يجب التشجيع على ممارسة التأمل الذاتي والتفكير الناقد اثناء الدرس.

الكلمات المفتاحية: (الميتاذهنية، الاستراتيجيات الميتاذهنية، استيعاب القراءة، مهارات القراءة).

1. Introduction

Throughout the years with the growing need for English, EFL curriculum developers and teachers always try their best to find out a proper way to deliver their message in teaching to their learners effectively and successfully. Besides, the increasing international attention in recent years, with the world becomes a small village, English has been highly and widely used in the contexts of education, travel, business, etc. So, EFL learners are in need to sharpen the four skills of language: listening, speaking, reading and speaking, i.e., reading comprehension is considered as a key factor of their English language development. Metacognition comes here to be one of these solutions to help EFL learners to overcome their language learning problems, reading comprehension in particular. Equally important, academic achievement is the focal point of the entire educational process for students. Employees at universities and schools are expected to perform at a high level because improved academic standing opens up more job opportunities in the future.

2. Statement of the Problem

As far as EFL learning is concerned, it is good to cast light on practical ways to assist those EFL learners to develop and boost their English for academic and general uses. According to the body of research, reading is considered one of the main input language skills that would help EFL learners succeed in their academic life since it provides them with the required and useful set of vocabulary (Grabe, 1991; Sheorey & Mokhtari, 2001; Do, & Thu Phan,

2021; Li, Sidhu, & Shamida, 2023). This research is an attempt to unveil whether the MA Program has an influence on EFL students to exercise their metacognitive strategies and their impact on EFL students' reading comprehension skills.

3. Research Objectives

The research objectives are as follows: to examine whether there is a correlation between MA Linguistics, MA Literature and MA Translation Programs and the effect of metacognitive strategies on students' reading comprehension skills. The second research objective is that whether MA Linguistics, MA Literature and MA Translation Programs promote EFL learners' metacognitive strategies to develop their reading comprehension skills.

4. Research Questions

The study investigates if the MA course promotes metacognition of EFL learners' reading comprehension skills. The research questions are as follows:

1) Is there a correlational interrelationship between MA Linguistics, MA Literature, and MA Translation Programs material and students' metacognition development in respect to their reading comprehension skills?

2) To what extent can MA Program promote EFL learners' metacognitive strategies to develop their reading comprehension skills?

5. Hypotheses of the Study

In order to solve the research questions, the following hypotheses are presented:

H.1: There is a correlation between MA Linguistics, MA Literature, and Translation MA Programs material and students' metacognition development in respect to their reading comprehension skills.

H.2: MA Program can promote EFL learner's metacognitive strategies to develop their reading comprehension skills.

6. Significance of The Study

There is a growing need for English in Iraq especially in recent years due to the direct contact with the native-speaking countries, travel, business and education, this therefore constitutes difficulties to EFL students to develop and improve their four skills English language, reading skills in particular. There is a crucial need to find practical methods to overcome those difficulties. Hence, the study is an attempt to guide Iraqi MA EFL students to overcome the obstacles they encounter while reading academic texts so that effective and successful ways have been proposed for future development in reading comprehension in general, English reading for academic purposes in particular.

To add, there is a limited number of studies in Iraq on metacognition and its impact on EFL learners' reading comprehension skills. This then motivated

the researcher to administer this study in order to enrich the body of research the potential results of the current work in the Iraqi context.

7. Scope of The Study

This project is designed to test the impact of metacognitive strategies on MA students' reading comprehension skills at the University of Basrah, College of Arts, Department of English, and MA students at Department of Translation. The total number of MA students is (35). To investigate the impact of MA Program materials on the students, the researcher conducted the study on postgraduate students who were expected to frequently utilize more metacognitive strategies than undergraduate students. However, this study has its own limitations. The size of the sample, i.e., the bigger the sample is, the more reliable and generalisable it will be (Creswell, 1998; Sarmah & Hazarika, 2012; Asiamah, Mensah, Oteng-Abayie, 2017). As the research deals with MA students, the number of MA students is relatively modest.

8. Rationale of The Study

A substantial body of research has shown that reading comprehension skills enrich EFL learners' bank of vocabulary and develop their metacognitive awareness (NRP, 2000; Miller, 2017). This study intends to unveil whether MA Program material can encourage the use of metacognitive strategies by Iraqi Postgraduate students of English in terms of their reading comprehension skills. Having achieved this, it therefore casts more light on

MA program material and its influence on the development of students' reading comprehension skills.

9. Theoretical Background

9.1 Metacognition: History, Backgrounds and Definitions:

The history of metacognition is deep because it dates back to works such as "Principles of Psychology" authored by William James in 1890 (Peña-Ayala, 2015). Besides, the Soviet psychologist Lev Vygotsky (1896–1934), the Swiss psychologist Jean Piaget (1896-1980), and JT Hart, who wrote "Memory and the Feeling-of-Knowing Experience", made their valuable contributions to the field of metacognition (Baker, 2009). In addition, Metacognitive Processes' have been realized and suggested by educational psychologists (for example, Dewey 1910, Thorndike 1914) prior to the appearance of the term 'metacognition'. Historically speaking, the term 'metacognition' was firstly come to light by Piaget's disciple the American psychologist John Flavell who originated the term through a book called ''The Development Psychology of Jean Piaget' in 1963. Considering the above, it seems that 'metacognition' gained its inauguration roots from the field of psychology because metacognition involves brain and its meta-activities, i.e., thinking about thinking, self-regulating, and self-controlling processes.

9.2 Metacognitive Strategies in The Field of Foreign Language Learning (FLL):

Metacognition is a growing field in the last few decades, in that EFL learners are in dire need of special techniques that would help them understand the texts during their journey of learning English. Metacognitive strategies are defined as "general skills through which learners manage, direct, orchestrate, and guide their learning, i.e., planning, monitoring and evaluating" (Wenden 1998, 519 as cited at Haukås, 2018). Metacognitive strategies, as defined by Oxford (1990), are the behaviors of learners to plan, arrange and assess their own learning. Metacognition is an approach that is noteworthy for its interrelation with the prediction and improvement of EFL learners' performance (Lara et al, 2020). It is a method that would help EFL learners to control their cognition in the process of learning in general and EFL environment in particular (Flavell, 1979; Baker & Brown, 1984; Mokhtari & Reichard, 2002). In addition, Metacognition is a step forward employed to orchestrate, regulate and guide learners' own strategies by employing thinking about learning, checking learners' productivity and assessing their comprehension (Brown, Campione & Day, 1981; Oxford & Nyikos, 1989; Oxford, 1990; Richards & Lockhart, 1996; Busato, Prins, Elshout & Hamaker, 2000); accordingly, monitoring strategies serve to advance learning through metacognitive approaches (National Research Council, 2000).

This demonstrates that the orchestration of different strategies is an integral component of second language learning, i.e., giving learners opportunities to

think about how they combine such different strategies maintains the enhancement of strategy use.

9.3 Mokhtari and Sheorey Model (SORS, 2002):

Having developed Metacognitive Awareness Inventory (MAI), which was originally designed for native speakers of English and consists of (52) items, Mokhtari and Sheorey were fairly ambitious to find out another model that can more precisely work on English non-native speakers. Mokhtari and Sheorey have then come up with another model called *The Survey of Reading Strategies (SORS)*. The authors recognized that the existing instruments do not take into consideration the strategies that are special to students who speak and write more than one language. SORS, as per Mokhtari and Sheorey, was designed to test adult ESL students' metacognitive awareness of reading strategies such as "mental plan, techniques, actions taken while reading academic and school-related text" (Mokhtari and Sheorey, 2002). Moreover, SORS also depended upon Metacognitive Awareness of Reading Strategies (MARSI), which consists of (15) items, is developed by Mokhtari and Reichard (2002) for native speakers of English. Furthermore, MARSI aimed to measure English-speaking native adolescent and adult students' awareness of reading comprehension skills.

Furthermore, SORS consists of (30) items which are all about the use of reading strategies by EFL academic-level students. All items are proposed to explore if EFL students are fully aware of reading strategies they may use

during their academic reading. SORS was come as an updated version of MARSI, which is validated on a large non-English-native speakers' population. The SORS measures three general categories: *global reading strategies*, *problem solving strategies*, and *support reading strategies*. The items of each category were formulated and shortlisted in an easy and clear way so that students would not encounter difficulty in understanding the meaning of such items. Below is a short description of these three categories as defined by Mokhtari and Sheorey (2002, p. 4):

- *Global Reading Strategies (GLOB)* are those intentional, carefully planned techniques by which EFL learners can control and manage their reading; the questionnaire consists of (13) items of this category.
- *Problem Solving Strategies (PROB)* are those actions and procedures that readers use as they are working directly with the text. This category contains (8) items.
- *Support Reading Strategies (SUP)* are the basic support methods aimed to assist EFL readers in comprehending the text such as using a dictionary, taking notes, discussing with others, underling or highlighting, and navigating the text. There are (9) items in this category. (Mokhtari and Reichard, 2002, p. 4).

9.4 Metacognitive Strategies, Reading Strategies and Reading Comprehension

The need for metacognitive skills has been growing in the recent couple of years because raising metacognition awareness of EFL learners has a

positive influence on their reading comprehension skills (Anderson, 2002; Cromley & Azevedo, 2006; Tavakoli, 2014). Metacognition is an essential tool EFL learners can make use of to develop their reading comprehension skills. What EFL learners' need to encounter the difficulties is an efficacious strategy that would help overcome such difficulties and deal with the problems during reading (Deliany and Cahyono, 2020). It has also been stated that there is a strong interrelationship between the use of metacognitive strategies and reading comprehension (Barnet, 1989; Chern, 1993; Ahmadi, Ismail, H& Abdullah, 2013; Tavakoli, 2014; Ahmadian and Pasand, 2017; Annury, Mujiyanto, Saleh & Sutopo, 2019; Sidh and Shamida, 2023). They prescribed that exposing EFL learners to metacognitive strategies led them to perform well at academic studies. Hence, students should be encouraged to focus on metacognition and metacognitive strategies to become a proficient reader (Cohen, 2003; Koda, 2005 Baker 2008).

In addition, Metacognition comes in two levels: cognition of knowledge and regulation of cognition. Cognition of knowledge refers to the ability of self-knowledge; EFL learners who are metacognitively attuned, they are able to demonstrate self-knowledge, i.e., they know what strategies and conditions perfectly work for them while they are in the process of learning whether it is declarative, procedural and conditional which all essential for developing conceptual (Schraw and Dennison, 1994). Declarative knowledge is to teach what the strategy is, procedural knowledge refers to how use it, and

conditional knowledge explains the most useful time for it (Baker & Brown, 1984; Mokhtari & Reichard, 2002; Razi, 2014); inexperienced readers are, therefore, incapable to solve their problems as they lack these three strategies. Regulation of cognition refers to the students' knowledge about the process of implementation of strategies and the propensity to monitor the efficacy of their strategies, i.e., the more they regulate cognition, the more they develop and monitor their learning strategies.

Equally important, reading is a multifaceted process involving word recognition, comprehension, fluency, and motivation (Leipzig, 2001). Despite the fact that reading is important and has a positive and key role in learning environment of EFL learners' (Al Raqqad, Ismail & Al Raqqad, 2019, Isik, 2023), it is overlooked and undervalued by most EFL learners (Bostock, 2023). In like manner, reading is seen as process, practice and product. The first category, process, is the focal point which pays attention to the part of the reader in the continuous process of written language. The second focus, practice, is for those who are interested in the form and meaning of written texts. The third orientation, product, is for those working on anthropology and social psychology, who are interested in reading and writing (Nunan & Carter 2001). Reading is important as it gives access to knowledge and information through rich sources, and it is seen as the major accomplishment for education in general, EFL learners in particular. (Meniado, 2016; Ghahari & Basanjideh, 2017).

Additionally, reading strategies are those employed by readers in order to have a good grasp of the text at hand. According to Afflerbach, Pearson & Paris (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 classed by several researchers as essential to develop EFL learners' reading comprehension. For instance, Block (1986) classified them into general and local strategies. Oxford (1990) categorized them into the following six categories, memory, cognitive, compensation, metacognitive, affective and social strategies. O'Malley and Chamot (1990) recognized them as metacognitive, cognitive and social/affective strategies.

To put it in a nutshell, metacognitive strategies are considered high order skills that benefit from knowledge of cognitive processes and establish an attempt to control ones' learning process through planning, monitoring and evaluating. In reading process, metacognitive strategies are 'self-monitoring' and 'self-evaluating' exercises, concentrating on process and the result of reading.

9.5 Metacognitive Strategies and Students' Academic Performance:

A vast body of research was conducted on how metacognitive strategies help enhance EFL learners' reading performance. Eluemuno & Azuka-Obieke (2013) unveiled that metacognitive reading strategies improved the reading capabilities of students' academic performance; they submitted that it was necessary to encourage using metacognitive strategies in the school

curriculum, which, in turn, influence the improvement of students' academic performance. In research conducted by Hayat, Shateri, Amini & Shokrpour (2020), it was revealed that metacognitive strategies raised the students' self-efficacy, which, in return, affected the students' academic performance. It has been investigated that administration of metacognitive strategies would sharpen the students' performance in reading comprehension (Sheikh, Soomro, & Hussain, 2019; Sidh and Shamida, 2023).

In addition, Ismail and Tawalbeh (2015) carried out a quasi-experimental study, they examined the impact of the metacognitive reading strategies on EFL low achievers in reading; the study showed that training on the use of metacognitive strategies among those low-scoring EFL readers improves reading comprehension performance.

9.6 Metacognitive Strategies and Students' Academic Accomplishment:

It is investigated that the usage of metacognitive strategies on the achievement of English language in the context of English as a foreign language (Wafa, 2003; Young and Fry, 2008; and Yang, 2009). They conclude that there is a positive interrelation between the use of metacognitive strategies and achievement in English. Wafa (2003) submitted that students who enrolled in special courses in English from An-Najah University/ Palestine, use more metacognitive techniques compared with the other learning strategies. Students with high achievement in English use more metacognitive strategies than those of low accomplishment in language

in question. Her conclusions demonstrate that "high achievers" immensely realize their needs and look for more chances to use English.

9.7 Metacognition and Students' Planning, Monitoring and Evaluation:

Metacognitive strategies are divided into three stages: planning, monitoring and evaluating. Planning is the first stage of this process; it provides the learner with the opportunity of how to set the plans and prepare the ground for the first understanding of the text. Planning entails certain strategies such as viewing the reading text, involving prior knowledge, guessing, setting a goal and preparing a plan for the reading process. (Al-Bazi and Shukri, 2016).

As planning is being applied as a pre-reading stage, then comes the monitoring stage. At this stage readers put their plan into action while reading. Schraw (1998) defines monitoring as "one's on-line awareness of comprehension and task performance" (p. 115). To use this strategy readers should apply 'critical thinking'. This then involves examining the development of their comprehension of the already established goals and reviewing their decisions about the application of such strategies (Magno, 2010). Also, monitoring as a metacognitive strategy can be sharpened through self-questioning and self-regulating processes.

Finally, the last stage is the evaluation. Evaluating is defined as "appraising the products and efficiency of one's learning" (Schraw, 1998, p. 115). Through self-reflection and self-assessment, learners can identify areas of

strength and weakness in their reading comprehension skills. This evaluation enables learners to make informed decisions about the strategies and approaches they employ, further improving their reading comprehension skills. This indicates that evaluating, as the last metacognitive phase of reading, entails assessing the overall quality of reading. To put it differently, it enables the reader to think about his overall achievement during the two previous phases.

10. Review of Related Studies:

10.1 Ahmadian and Pasand (2017)

Ahmadian and Pasand (2017) examined Iranian EFL learners' online reading metacognitive strategy use and its connection to their self-efficacy in reading comprehension. The research used a quantitative approach adopted two questionnaires that are Online Survey of Reading Strategies (OSORS) (Anderson, 2003), and Survey of Reading Strategies (SORS) (Mokhtari and Reichard, 2002). The study involved 63 EFL learners. Forty females and twenty-three males. All of the participants, whose ages were from 19-23, were Persian L1 speakers studying English and literature in Arak university, Iran; they were all of intermediate level as this found out using Nelson Proficiency Test. To this end, the study revealed that there is a crucial relation between the utilization of online metacognitive strategies. Also, the study showed that there was no equal distribution in the frequency of using various factors of metacognitive online reading strategies by the study subjects.

10.2 Annury, Mujiyanto, Saleh & Sutopo (2019)

In a similar vein, Annury, Mujiyanto, Saleh & Sutopo (2019) explored metacognitive reading strategies and their link to EFL learners' reading comprehension skills. The study was quantitative research, and researchers adopted MARSI model which is a questionnaire developed by Mokhtari and Reichard (2001). The research involved 43 students, with ten males and thirty-three females. This study found out that participants availed themselves from metacognitive reading strategies in order to plan, arrange and evaluate the success of their learning. This study also unveiled that EFL undergraduate students used global support and problem-solving strategies in order to understand the reading text.

10.3 Do and Pham (2021)

Do and Pham (2021) undertook a study on metacognitive awareness and reading comprehension. The study examined the interplay between L2 Vietnamese students' metacognitive perception of reading strategies and if there are any significant differences between male and female L2 Vietnamese. The research adopted the questionnaire (MARSI) (Mokhtari and Reichard, 2001) which is originally designed for native speakers, and the approach 'Survey of Reading Strategies (SORS), which was formulated by (Mokhtari and Reichard, 2002), was developed to suit ESL learners. The study adopted a quantitative approach. As a result, the study unveiled that L2 Vietnamese students used reading strategies in reading text, where problem-

solving strategy was mostly used more than other strategies. Also, the study revealed that there is no major difference in participants' metacognitive awareness of reading strategies in terms of gender.

11. Methodology:

This study is quantitative in nature. Quantitative research provides statistics, numeric accounts of the trends and perspectives of a portion of people by investigating a sample of such a portion (Creswell, 2009). What can also be added is that quantitative research is deductive, i.e., data collected first, and then from the data analysis, a theory is constructed and developed. (Creswell, 2009; Cropley, 2015). The objective of quantitative research is to investigate the relationship between variables, such as the dependent and independent variables (Creswell, 2009; Maxwell, 2015). The participants were all MA students of the program 2022-2023. The total number was (34); males were (8) and females were (26) whose ages ranged from (23 to 40) years old (m=x, SD=x). Linguistics students were (9) in total, males were (4) and females (5). For Literature students the total number were (13), with (2) males (11) females; students of Translation Department were (12), males were (2) and females were (10). All participants were Iraqis.

In the first place, the researcher administered Survey of Reading Strategies (SORS) questionnaire adopted from Mokhtari and Reichard (2002) in order to carry out a pre-course questionnaire to find out if they are aware of metacognitive strategies and can use these strategies when reading on the academic level. Also, a pretest was administered at the beginning of the MA

Program of the three studies in questions (Linguistics, Literature, Translation), and in like manner a posttest was run at the end of the second course. MA Program worked as treatment sessions to students to find out whether their metacognition was triggered and developed throughout the MA course.

12. Research Design

This study is a quantitative in nature. For quantitative design, the work included a variety of tests including a pretest, which helped the researcher have a brief idea of the kind of data he expects at the end of this work; treatment was exercised by the MA Program, and a posttest, which enabled researcher to follow up the potentials of the study results and effects on the part of the learners. The posttest also helped the researcher to observe the study participants' progress along the MA Program. Equally important, quantitative research provided the researcher with statistical utilization pertaining to the quantity under investigation (Creswell, 2016). Besides, the questionnaires were quantitative data, which provide insights into whether MA students are aware of the use of metacognitive strategies in relation to their reading comprehension skills.

On the one hand, independent variables are the cause and are expected to influence the other dependent variables that are supposed to be the effect and the result. An independent variable is a variable utilized in an experiment in order to examine and the effects such has on a dependent variable that is usually described as an outcome variable. On the other hand, the dependent

variables are those that count on the independent variables; they are the results of the influence of independent variables; independent variables can stand alone and exert influence on dependent variables (Apuke, 2017; Creswell & Creswell, 2018; Rudolph, Leedy & Ormrod, 2015). The independent variables of the study are the metacognitive strategies and MA program, they both influence and affect the dependent variables, i.e., the respondents.

13. Data Collection Methods

The main purpose of the research is to explore whether there is a correlational interplay between the MA Program and the development of metacognitive strategies and their impact on MA students' reading comprehension skills. Hence, one of the sources was the pretest, which was a reading passage adopted from TOEFL iBT test (2010), which was run at the beginning of the first term. TOEFL test is one of reliable and internationally requested by American universities, plus a passage of reading section of such a test was designed in special way that suits the postgraduate level and tests the ability of students at university level (Sharpe, 2010). Besides, a posttest was administered at the end of the second term of MA Program in order to see if there was a development in student's metacognition.

14. Data Analysis

The table below shows the mean and standard deviation for pretest and posttest together with Wilcoxon value represented by significant value of students of linguistics studies.

Linguistics							
#	Categories	Pretest		Posttest		n	Significant Value	Statistical Index
		mean	s.d.	mean	s.d.			
1	GLOB	٠.٥٣	٠.٠٧٤	٠.٩٠	0.091		٠.٠٣٤	Significant
2	PROB	٠.٤0	٠.١٣٦	٠.٩١	٠.١٣٦	5	٠.٠٣٩	Significant
3	SUP	٠.٣٢	٠.١٠٩	٠.٨0	٠.١٤١		٠.٠٣٨	Significant

Table No. (4) mean and standard deviation of pretest and posttest percentages and Wilcoxon value / Linguistics Studies
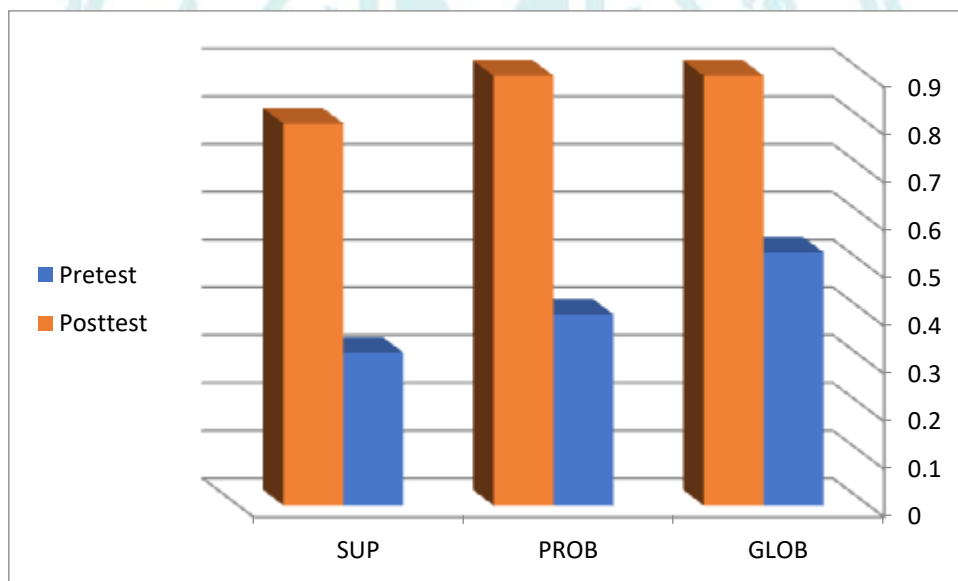

Figure No. (1): Development between the results of pretest and posttest / Linguistics Studies

Table No. (4) displays that the GLOB category exhibited an increase from its pretest mean of (0.53) to a posttest mean of (0.90). This rise in mean scores indicates a significant improvement in participants' performance.

Likewise, the standard deviation for the posttest, (0.0912), indicates the spread of scores after the MA program effectiveness.

Next, the PROB category displayed a pretest mean of (0.4), which notably increased to a posttest mean of (0.91), indicating a substantial enhancement in scores due to the same reason. However, the standard deviation during the pretest and posttest remained consistent at (0.136), suggesting a stable degree of score variability within this category.

The SUP category, starting with a pretest mean of 0.32, experienced a meaningful increase in its posttest mean to (0.8). This positive shift underscores the efficacy of the course materials. The corresponding standard deviations of 0.109 for the pretest and 0.141 for the posttest provide insight into the dispersion of scores.

To assess the actual differences between pretest and posttest, the researcher employed a non-parametric test, specifically the Wilcoxon test for correlated samples. The calculated Wilcoxon value of 0.05 points to statistically significant differences between the pretest and posttest scores. The significance value being less than 5% gives further support to the existence of substantial statistical disparities between the two assessment points, indicating a tangible impact of the course taught.

Literature							
#	Categories	Pretest		Posttest		n	Significant Value	Statistical Index
		mean	s.d.	mean	s.d.			
1	GLOB	0.40	0.19	0.80	0.139	5	٠.٠43	Significant
2	PROB	0.35	0.136	0.80	0.111		٠.٠٣4	Significant

3	SUP	0.28	0.178	٠.٨٥	٠.١٤١		0.41	Significant

Table No. (5) mean and standard deviation of pretest and posttest percentages and
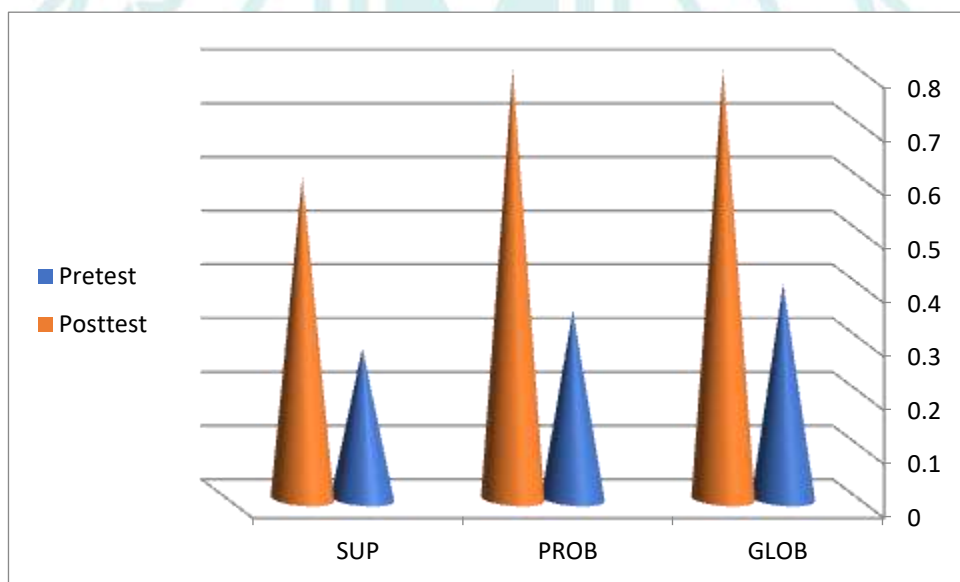
Wilcoxon value / Literature Studies

Figure No. (2): Development Difference between the results of pre- and posttest /
Literature Studies

With a quick look at table No. (5) above, it is seen that the GLOB category

showed a rise from the pretest mean (0.40) to the posttest mean of (0.8). This

increase represents that there is a positive development in MA students'

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performance. Similarly, the standard deviation of this category was also increased from (0.19) for the pretest up to (0.139) for the posttest, which signaled that the scores were greater after taking the MA program. Standard deviation in GLOB of pretest is slightly big when it is compared with standard deviation of the posttest of the same category.

Besides, PROB category disclosed a pretest mean (0.35) which noticeably enhanced to (0.8) for the pretest, referring to an improvement in students' scores in comparison with pretest. The standard deviation for this category was (0.136) for the pretest and (0.111) for the posttest, this denoted that the students scores were homogenous with students almost unanimous about the utilization of this category.

Further, SUP category unveiled a mean of pretest (0.28) which was greatly improved to a posttest mean (0.8). This therefore reveals that SUP category exhibited the highest advance in comparison with the other two categories (GLOB and PROB) for the students of linguistics studies.

To see the actual disparity between pretest and posttest, the researcher exploited a non-parametric test, which is Wilcoxon test, for correlated samples. The calculated Wilcoxon value of 0.05 pinpoints significant differences in statics between the pretest and posttest scores. The significance value which is less than 5% gave evidence of the considerable differences between the two assessment points, referring to a better influence exerted by MA program materials on students' metacognition awareness and development.

The table below shows the mean and standard deviation of the students of Translation Studies.

		Translation						
#	Categories	Pretest		Posttest		n	Significant Value	Statistical Index
		mean	s.d.	mean	s.d.			
1	GLOB	0.47	0.165	0.66	0.218		0.051	Non-Significant
2	PROB	0.46	0.208	0.56	0.115	8	0.257	Non-Significant
3	SUP	0.42	0.249	0.70	0.185		0.05	Non-Significant

Table No. (6) mean and standard deviation of pretest and posttest percentages and Wilcoxon value / Translation Studies
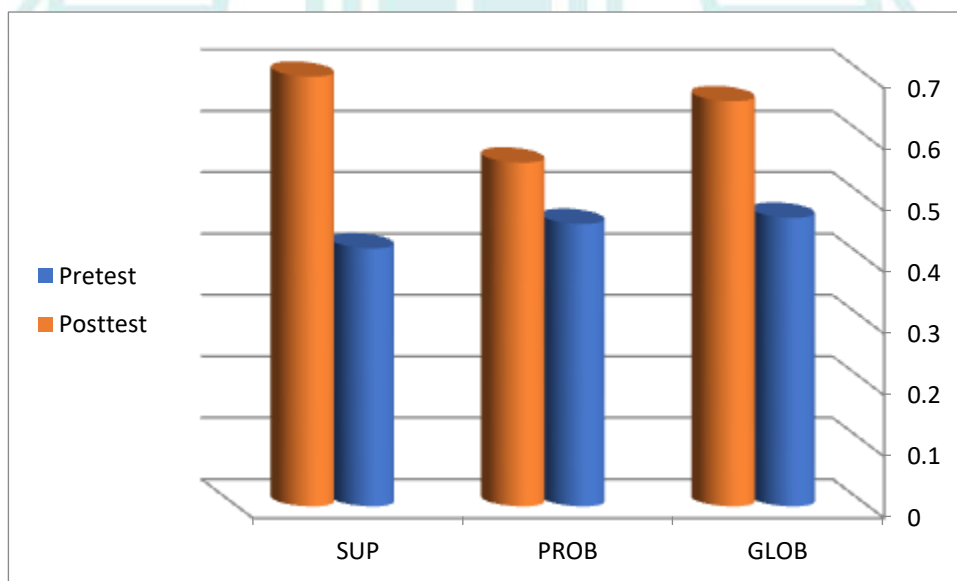

Figure No. (3): Development Difference between the results of pre- and posttest / Translation Studies

Table No. (6) above revealed that the GLOB category was remarkably improved from the mean (0.47) of the pretest up to (0.66) of the posttest. This indicated that participants were using this category more than the other two. The standard deviation of GLOB was (0.165) of the pretest and (0.218) of the posttest.

In addition, PROB category was also on the upward line with a mean (0.46) for the pretest and (0.56) for the posttest with a standard deviation of the pretest and posttest (0.208) and (0.115) respectively. PROB came at the second place after GLOB in terms of improvement.

Next, the category SUP showed a mean (0.42) of the pretest and (0.70) of the posttest with a standard deviation of (0.249) at the pretest and (0.185) at the posttest. This emphasized that this category was the lowest one utilized by students of Translation Studies. Also, translation students were not very interested in using the items of this category.

To check the actual disparity between pretest and posttest, the researcher deployed a non-parametric test, which is Wilcoxon test, for correlated samples. The calculated Wilcoxon value of 0.05 pinpoints significant differences in statistics between the pretest and posttest scores. The significance value which is less than 5% gave an indication of the profound differences between the two assessment points, referring to a beneficial influence exercised by MA program materials on students' metacognition awareness and development.

To Recap, having examined the quantitative data and interpreted the qualitative data, the researcher found out that MA Program had a profound effect on the students of Linguistics and Literatures Studies, however, a fairly slight increase was reported on the students of Translation Studies. The research attributed this difference to the reason that Linguistics and Literature Program mainly focus on the language and linguistics, while the Translation students are very much interested in the translation techniques and theories rather than the language and linguistics. Moreover, Medicine and Engineering students do not pay more attention to grammar or punctuation of English. However, they are after the scientific and technical information, i.e., they look for the meaning rather than wording, which is the same situation for students of Translation Studies. For this reason, MA Program influence was fairly unsignificant on the students of Translation Studies. Besides, the result of this study went in line with the following studies (Ahmadian and Pasand, 2017; Annury, et al., 2019; Razi, 2014; Zhang & Seepho, 2013).

15. Results and Discussion

To answer the first research question, the results showed that MA Program at the University of Basrah, College of Arts, Department of English and Department of Translation have noticeable effect on their use of metacognitive strategies during MA Program, which helps them develop their reading comprehension skills.

In accordance with results of pre- and posttest, it was demonstrated that there was a correlational relationship between MA program and the development of metacognitive strategies with respect to reading comprehension skills. As stated earlier, MA students claimed - through pre-term questionnaire - that they employ metacognitive strategies, but they actually did not as they all failed the pretest. Otherwise, the posttest results illustrated that there was a correlation between MA program and the development of metacognitive strategies. Furthermore, the researcher attributed this correlation to the low rate of standard deviation of the post-term questionnaire and posttest in comparison with the pre-term questionnaire and pretest results. Statistically speaking, the less standard deviation is, the better the result will be. Thus, the standard deviation of the posttest was less than that of pretest, this pinpoints that the results of post-term questionnaire was more consistent with those results of the posttest than those results of pre-term questionnaire, and student's answers were focused rather than deviated. Additionally, the students' answers varied among the three choices of questionnaire, i.e., (Always, Sometimes, Never). Therefore, this means that there is a sustainable development in students' metacognition and its correlation with their reading comprehension skills after the enrollment in MA program at the Department of English (Linguistics and Literature Studies) and the Department of Translation.

To Recap, having examined the quantitative data and interpreted the qualitative data, the researcher found out that MA Program had a profound

effect on the students of Linguistics and Literatures Studies, however, a fairly slight increase was reported on the students of Translation Studies. The research attributed this difference to the reason that Linguistics and Literature Program mainly focus on the language and linguistics, while the Translation students are very much interested in the translation techniques and theories rather than the language and linguistics. Moreover, Medicine and Engineering students do not pay more attention to grammar or punctuation of English. However, they are after the scientific and technical information, i.e., they look for the meaning rather than wording, which is the same situation for students of Translation Studies. For this reason, MA Program influence was fairly unsignificant on the students of Translation Studies. Besides, the result of this study went in line with the following studies (Ahmadian and Pasand, 2017; Annury, et al., 2019; Razi, 2014; Zhang & Seepho, 2013).

16. Conclusion

The study concludes that if there's a relationship between the development of reading skills and metacognition, we can draw some intriguing conclusions. For one, being self-aware, thanks to metacognition, can greatly enhance a student's reading capabilities. This is because as students become more tuned into their own thought processes, they can better navigate the complexities of a text, understanding not just the words, but the nuances and deeper meanings. It's a symbiotic relationship; as reading skills improve, students become more adept at analyzing their comprehension strategies, and as they

refine their metacognitive abilities, their reading becomes more insightful. This suggests that educators should focus not only on teaching reading techniques but also on fostering student's self-awareness about their own learning processes.

In like manner, students of linguistics and literature are often required to dive deeper into texts. They need to grapple with nuanced interpretations, explore the underlying contexts, and understand both the overt and covert meanings in literature. Linguistics, in particular, requires understanding the intricate structures and mechanics of language. Metacognitive strategies enable these students to reflect on their thought processes, making their analyses richer and more profound. It's also possible that students of linguistics and literature are introduced to or are more inclined to utilize metacognitive strategies during their studies. Being aware of one's own understanding is crucial when navigating the complexities of literature or the intricacies of linguistic theories. On the other hand, translation students might be more focused on honing practical skills related to language conversion, which might not be as intertwined with metacognition. While metacognition is a universally valuable skill, specific contextual factors in Iraqi universities could pose challenges to its widespread adoption and practice.

17. Recommendation

Developing metacognitive strategies is critical for enhancing student learning outcomes. Here are some recommendations for universities and school stakeholders to create learning environment of help promote metacognitive strategies. First of all, self-questioning technique can be exploited to students to ask themselves questions before, during, and after reading a text. Questions might include predictions, inferences, or summarizing information. Secondly, strategy instruction is useful to explicitly teach students different metacognitive strategies and give them opportunities to practice in class. For example, for a translation course, this could involve teaching them how to approach idiomatic expressions or cultural references. Also, **Self-assessment:** Encourage students to evaluate their own work, identifying what they did well and where they could improve. This helps them become more aware of their own strengths and areas for growth.

1. **Incorporate Metacognition into the Curriculum:** Integrate metacognitive techniques directly into the curriculum. This can be achieved by adding reflective components to assignments where students analyze their thought processes.

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