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The Correlation between Iraqi EFL University Students' Self-regulation, Metacognitive Knowledge, and Writing Skill

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Abstract

The current study looks at how Iraqi EFL university students' writing skills, metacognitive knowledge, and ability to self-regulate are related. In order to achieve this goal, 350 students from various Iraqi universities and colleges with an English department were selected at random during the 2022–2023 school year to participate in the current study. Three tools were sent to the participants: a writing skill assessment tool, a self-regulation tool, and a metacognitive knowledge questionnaire. We decided to use an essay test to evaluate your writing skills. The study found that Iraqi university students studying English as a foreign language have a moderate amount of self-regulation and a decent degree of metacognitive understanding. Additionally, there was a substantial correlation between the two variables. Consequently, EFL students' writing performance is great when they possess good levels of Metacognitive Knowledge and self-regulation.

Keywords: *Metacognition, Self- Regulation, Metacognitive Knowledge, EFL University Students, Writing Skill.*

Introduction

Writing is one of the most crucial parts of language learning. Students, and particularly those studying English as a foreign language in Indonesia, should make it a top priority to develop their writing abilities. According to Fajri et al. (2020), the ability to write well could be considered a crucial skill. Writing well calls for an in-depth familiarity with language, the ability to think critically, and the ability to articulate thoughts on paper. Students must go through a series of steps in order to produce a piece of writing. There are five steps to writing: brainstorming, outlining, drafting, editing, and publishing. Students also learn to examine deeper themes to generate more up-to-date writing (Mbato & Cendra, 2019).

Furthermore, the ability to write is one of the keys to writing a better scientific article; writing itself may be considered as an academic activity (Husin & Nurbayani, 2017). Many EFL students still struggle in writing English due to variations in cultural backgrounds and grammatical concepts between the students' home tongue and English (Ariyanti, 2016). As a result, possibly, their work does not 'sound' right in the suitable English culture. Furthermore, EFL students must work hard to transfer meaning from Arabic to the English context in order for the final result to be understandable and make sense when read by others, particularly native speakers (Ariyanti, 2016).

Moreover, Husin and Nurbayani (2017) discovered many EFL students are still unable to

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articulate themselves in good academic writing. Students struggle with language style, grammar, vocabulary, and spelling when writing English argumentative discourse, as well as issues developing ideas, structuring paragraphs, and utilizing the writing scientific paper approach. The latter occurs more commonly in the case of drafting proposals and research articles. All these problems and students' incapacity to deal with them will cause them to become upset and lose motivation in their writing process. Owusu and Essel (2017) noted that students experience frustration, difficulty focusing and thinking effectively, missteps, and ultimately fails to complete their writing assignments.

Students need to learn to regulate their emotions in order to finish their undergraduate thesis on time, considering how challenging it is. In order to accomplish specific educational objectives, self-regulation training trains students to organize themselves, which includes managing their thoughts, emotions, and behaviors. According to Ariyanti et al. (2018), self-regulated learning is when students actively seek out different ways to learn; in this case, it means writing an undergraduate thesis. This allows them to take responsibility of their own knowledge development and progress. Students might find more inspiration to write their theses when they take ownership of the process through self-regulation.

Researchers from all across the globe have delved deep into the concept of self-regulation. Students' success in academic writing has been greatly improved through self-regulation (Wagener, 2018). Students exhibit high levels of self-regulation, help-seeking, and motivational regulation, according to a mixed-methods study by Mbato and Cendra (2019). Undergraduates must finish their challenging theses.

Students can inspire themselves to write well, participate actively in class, and be prepared to practice, expand, and organize course material, according to research by Ariyanti et al. (2018). In addition, students showed marked improvements in their ability to self-regulate, which in turn led them to work harder and more effectively to master writing. In their writing, students showed signs of good self-regulation. All of these studies have found that pupils who are able to control their own behavior in the classroom fare better academically than their peers. When people are able to control their own emotions, it shows in their self-regulation abilities. Students are not typically quick to lose their composure when confronted with adversity. Students are able to keep tabs on and assess the progress made since they have emotional management skills. Sometimes, students would even punish themselves when they failed to complete an assignment correctly.

"What people know about themselves and others as cognitive processors" is the definition of metacognitive knowledge (Corkill, 1996, 275), Understanding the distinctions between individuals, activities, and approaches is a subset of this larger body of knowledge. For the purposes of metacognition, all information regarding one's own and other people's mental states and processes fall under the "person" category. There are two subcategories that make up the task category: The first is concerned with the information that is accessible during cognition (i.e., the quantity, organization, and presentation of this information) and the interpretation of the implications of differences in this information. Taking into account the demands or aims of the job is the second subcategory. This means realizing that some cognitive efforts are more challenging or require more focused attention. A person's strategy can be defined as their familiarity with the mental methods that have a higher probability of producing the desired results, One way in which cognitive strategies differ from metacognitive strategies is that the former are procedures that are employed to accomplish specific tasks, or "to make cognitive

progress" as Flavell put it (In Corkill, 1996, 276).

A person employs a metacognitive strategy when they have good reason to think—maybe based on information from their past experiences—that this method has a better chance of success than others. There are typically three types of metacognitive knowledge that make up what is known as "knowledge of cognition" (Schraw & Moshman 1995), which can be defined as "knowledge about one's own cognition" or "knowledge about cognition in general" (Schraw & Moshman 1995). Knowing something "about" it is known as declarative knowledge. Factors impacting one's performance and one's own learning process are part of this body of information. Knowing "how" to accomplish anything is what's known as "procedural knowledge." It's the ability to carry out specific tasks and procedures. When we know when and why to use certain cognitive acts, we have conditional knowledge. This information pertains to the "why" and "when" components of cognition.

The Problem of the study is formulated into the following question **:**

“Is there any significant correlation between students’ self-regulation, metacognitive knowledgeand their writing skill ?”

The Objectives of the Study

Based on the problem of the study above, the objective of this study is to :

1.Find out Iraqi EFL university students’ level of self-regulation.

2.Iraqi EFL university students’ level of metacognitive knowledge.

3.find out whether there is any significant correlation between students’ self-regulation ,metacognitive knowledge and their writing skill.

The Significance of the Study

This study is expected to be beneficial for :

1. Students

Students should be more aware of the need of "self-regulation" in their learning, particularly when it comes to academic writing, according to the results of this study. Students will be able to improve their academic performance and reach their full potential when they begin to understand the importance of developing their skills in behavioral regulation, planning, direction, monitoring, and the integration of physical, mental, emotional, and social aspects in pursuit of objectives.

2. Teachers/Lecturers

This research aims to assist teachers and lecturers in becoming facilitators and improving students' self-regulation skills because it is helpful for students to develop themselves and achieve their goals.

3. Future Researcher.

This research is designed to be a useful resource for any research on self-regulation and metacognitive knowledge in the context of EFL learning or other education fields.

Literature Review

The term "metacognition" is used to explain the way in which people learn new information and improve their own learning abilities (Amini et al., 2020). It is also used to describe a person's thought processes in general. According to Clarke et al. (2020), readers who engage in metacognition are aware of their own knowledge and skills and are able to reflect those abilities on their comprehension of the text. In order to enhance the learning process, Wilson and Conyers (2016) describe metacognition as thinking about how learners think, or cognition. Students who use metacognition when he/she reads an unfamiliar word, and decide to use two strategies which she already learned to recall a word's meaning (perhaps by guessing against the glossary in the textbook) and breaking it into components, and looking for contextual clues. An overarching definition of metacognition is knowledge of one's own cognitive process; yet, the term is more narrowly defined as knowledge of one's own cognitive process, and a theoretical divide persists between the two.

A person engages in metacognition when they monitor and control their own mental processes. It can be further described as our understanding of the mental operations that enable us to acquire and retain information (Ormrod, 2004). Researchers can gain a better understanding of metacognition by separating metacognitive knowledge from metacognitive control. Many researchers have postulated a connection between these two parts (Brown, 1987; Flavell, 1987; Schraw and Dennison, 1994).

What we know regarding our own mental operations is called metacognitive knowledge. According to Schaw and Moshman (1995), metacognitive information can be broken down into three parts: declarative, procedural, and conditional. What we know regarding our own learning processes and the factors that impact them constitutes declarative knowledge. What we call "procedural knowledge" is the information we've accumulated on the various ways our brains learn and remember things. Our understanding of the circumstances under which different cognitive techniques are applicable is known as conditional knowledge. All of our knowledge about how we learn, the strategies that work best for us, and the best environments in which to perform various forms of cognitive work makes up our cognition (Schraw and Moshman, 1995; Abdulelah & Jasim, 2022).

Unlike metacognitive knowledge, which refers to abstract concepts, metacognitive regulation refers to the concrete actions that we take to improve our memory and learning (Schraw and Moshman, 1995). There are essentially three parts to metacognitive regulation. Among these, you can find plans, checks, and assessments. Simply said, planning is the process of preparing for a mental activity by deciding on a course of action and allocating mental resources accordingly. Knowing how far along we are in a cognitive task and being able to assess our own performance are both components of monitoring. Lastly, evaluation is looking at the result and deciding whether the result is in line with our learning objectives and whether the control mechanisms we employed worked (Schraw and Moshman, 1995; Al Asadi, & Al-Issa, 2022).

Students will naturally do better in school if they are able to effectively employ their metacognition and have a solid foundation of metacognitive knowledge.

In order to ascertain whether or not these abilities are associated with academic success, it is crucial to be able to evaluate college students' metacognition. If we can claim that metacognitive abilities are associated with evaluations of academic achievement, then teachers can employ a variety of strategies to gauge their students' metacognition and, if needed, devise methods to

enhance it (Al Saadi & Shaima, 2009).

Metacognitive Assessment and Academic Achievement

The relationship between metacognition and academic performance metrics has been the subject of several studies. Metacognitive knowledge, metacognitive regulation, or both are used to test metacognitive skills in these research. There is some variation in the measurements given for these components in the published works. Arnidah, Syamsiah, Sinaga, and Aswan (2022) and Schaw and Dennison (1994) are among the researchers who have used self-report inventories to evaluate metacognitive abilities and their correlation with accomplishment metrics. Everson and Tobias (1998), Nietfeld et al. (2005), Schraw (2001), and Alsalihi (2020) are among the researchers who have looked at monitoring accuracy as a way to quantify metacognitive regulation on different exams. Calibration of performance is the yardstick by which monitoring precision is evaluated. Performance evaluations are fine-tuned on both a regional and international scale. Each item on a test is followed by a local judgment. The average discrepancy between students' self-assessments and the actual exam scores is used to calculate the local monitoring accuracy. Final verdicts are handed down once all parts of the exam have been run. The overall performance on the test is to be evaluated by the students themselves. In order to find the global monitoring accuracy, we subtract the students' self-assessment scores from the total exam score. Based on previous research (Nietfeld, et al., 2005; Mohammed, & Jasim, 2022), it is believed that global monitoring accuracy measures cumulative metacognitive control and that local monitoring accuracy measures ongoing metacognitive regulation during testing. To evaluate metacognitive knowledge and/or regulation, the following is a concise summary of research that has used survey and monitoring accuracy metrics.

Knowledge monitoring accuracy piqued the interest of Everson and Tobias (1998). Metacognitive regulation is believed to include this skill. For the purpose of determining students' knowledge monitoring ability (KMA), they devised a method that compares students' verbal domain estimations to their actual verbal test scores. The researchers discovered that the KMA had the strongest correlation with students' final English grades, followed by the humanities and their cumulative GPAs. Additionally, they discovered that the KMA, a measure of metacognitive regulation, was predictive of academic success in college and had a correlation with academic achievement while enrolled there.

Understanding how metacognitive knowledge and regulation relate to one another was of particular interest to Schraw (1994). Using a battery of multiple-choice reading tests, he gauged students' metacognitive knowledge by having them rank their ability to track their own performance.

By having students estimate their own accuracy before and after the test, he was able to gauge global and local levels of metacognitive regulation. Schraw hypothesised that adult students may vary less in metacognitive knowledge than in metacognitive regulatory abilities, based on his research. In addition, he hinted that metacognitive regulation is not necessarily necessary for the development of metacognitive knowledge.

Last but not least, Schraw discovered a strong correlation between pre-test evaluations of performance and actual performance on tests, which he interpreted as a sign of metacognitive knowledge. He also discovered connections between test performance and both global and local judgments, suggesting a connection between metacognitive management and test scores.

In their 2005 study, Nietfeld et al. assessed metacognitive control by having students complete

a battery of multiple-choice exams throughout the course of a semester to determine their local and global monitoring accuracy. Over the course of the semester, they discovered that monitoring accuracy was consistent across all exams. Students' global predictions also outperformed their local ones, according to the study. They discovered that the accuracy of the local monitoring had a correlation with the students' test scores.

To measure what Schraw and Dennison (1994) called the "knowledge of cognition factor" and the "regulation of cognition factor"—two aspects of metacognition—the Metacognitive Knowledge Inventory (MAI) was created. Both of these aspects of metacognition are covered in the MAI questions. According to their findings, the components of cognition knowledge and cognition control were strongly supported, and the research had already revealed a relationship between the two (Brown, 1987; Saalh, & Esmaeel, 2022).

Comparing MAI scores with other measures assumed to be relevant to metacognition, such as pretest monitoring ability, actual test performance, and the capacity to accurately monitor test performance, Schraw and Dennison (1994) also examined the MAI's convergent validity. Neither the pretest judgments nor the MAI nor monitoring accuracy were shown to be significantly related. Results showed that while the regulation of cognition component of the MAI did not correlate with improved test scores, knowledge of cognition did. Additionally, they discovered a correlation between the MAI and understanding of cognition as assessed by pretest judgments. Test performance was positively correlated with pretest evaluations as well.

Using the MAI to assess college students' metacognitive knowledge, Sperling et al. (2004) discovered a strong relationship between the understanding of cognition and management of cognition factors. They were also curious to see if there was any relationship between the MAI and SAT scores, high school average, and other indicators of academic success. Results on the MAI did not correlate with other indicators of academic performance. The unexpected finding of a negative association between MAI scores and SAT math results caught them off guard.Research on the relationship between metacognition and academic performance has shown mixed results. When students are asked to rate their own performance on a local or global scale, it suggests that regulation of cognition is related to test scores, GPAs in specific domains, and overall GPAs (Everson and Tobias, 1998; Nietfeld et al, 2005; Schraw, 2001).

It would appear that there is evidence supporting the association between metacognitive abilities and measures of academic accomplishment when metacognition is evaluated through calibration of performance measures. It is a laborious process to determine monitoring accuracy and ability at both the local and global levels in order to evaluate metacognitive knowledge and regulatory skills. Students who are evaluated in the context of their real college courses, rather than in a controlled environment, are particularly affected by this. Students who are keeping tabs on their precision both locally and globally should answer each question carefully and then indicate the degree to which they were confident in their answers. While taking exams that will determine their final course scores, this process can be tedious and even stressful for pupils (Nietfeld, 2005). To determine the extent to which students have mastered metacognitive concepts, it is necessary to administer assessments in a less invasive way. Using a less intrusive evaluation tool, like a questionnaire, teachers can easily spot pupils who are having difficulty and work with them to build strong metacognitive abilities.

Schraw and Dennison (1994) created the MAI to evaluate metacognitive knowledge in a short and easy way, moving away from using metacognitive judgments as a way to identify metacognitive abilities. Reading comprehension test scores—a proxy for academic success—

correlate with MAI, as mentioned earlier, but only on the knowledge of cognitive component. More extensive evaluations of academic performance, including SAT scores or high school GPA, were not associated with the results found by Sperling et al. (2004).

Research using the MAI to measure metacognition has, unsurprisingly, yielded conflicting findings.

Additional and more comprehensive research on the MAI is required. Metacognition assessment tools should be able to pick up on a wide range of cognitive abilities beyond only verbal proficiency when employed with comprehensive assessments of academic performance. Professors should be able to use the results of easy-to-score assessments to guide student learning throughout the semester. Comprehensive evaluations of the two hypothesized aspects of metacognition—metacognitive knowledge and metacognitive regulation—are also necessary for metacognitive assessments.

Student understanding of their own learning strategies and the when, how, and why of effectively utilizing them is known as metacognitive knowledge (Harrison & Vallin, 2018). Per Schaw and Dennison (1994) and Kallio et al. (2018), it is believed to include two parts: understanding how the mind works and the ability to control one's own thought processes.

Knowledge about Cognition

It encompasses knowledge of cognition in its declarative, procedural, and conditional forms (Sperling et al., 2002). "Knowing about things" is declared knowledge, "knowing how to do things" is procedural knowledge, and "knowing why and when to do things" is conditional knowledge (Schraw & Moshman, 1995). Declarative knowledge is defined as understanding the subject matter of learning, with a focus on tactics that can be used to improve task completion performance (Harrison & Vallin, 2018). The ability to know the steps to take in order to accomplish a goal is known as procedural knowledge. According to Schaw (2004), conditional knowledge entails knowing when and why strategies can be employed to complete tasks, and according to Schunk and Zimmerman (2012), it also includes understanding and utilizing methods to improve learning. Students that score high on the conditional knowledge test are better able to track their own learning and adapt their study methods to different scenarios (Schraw, Crippen, & Hartle, 2006).

Regulation of Cognition

The capacity of students to organize, carry out, oversee, and assess their own learning is what it pertains to (Schraw & Dennison, 1994). The process is divided into three main parts, as follows: 1) analyzing the task at hand, setting goals, and developing a strategy before taking any action; 2) employing various methods and strategies to monitor and control learning while studying and performing; and (3) assessing and reflecting on learning both during and after the action (Harrison & Vallin, 2018). Students move back and forth between these stages as they finish learning tasks, as they are cyclical and interdependent (Hyytinen et al., 2021). Constantly assessing one's knowledge and the amount of material that still needs to be learnt is an integral part of cognitive regulation (Brown, 1987).

Cognition regulation and knowledge of cognition are linked fields (e.g., Flavell, 1987; Brown, 1987). To illustrate the point, it is feasible to keep tabs on information regarding cognition through cognitive control (Harrison & Vallin, 2018; Zimmerman & Schunk, 2012).

Writing Skill

Writing is an essential means of communication and is inextricable from human existence. Writing serves as a medium for both self-expression and communication (Pincas,2013). Writing is the act of transcribing language through standardized visual symbols or marks on a surface, encompassing both physical and cognitive dimensions (Al-Kubaisy, 2018, p.138). According to Jassim (2023:672), writing is the primary talent in learning and teaching. It has been emphasized in second language acquisition.

According to Brown (2007), writing is defined as an inherent capacity that cannot be artificially generated. It is regarded as a matter of deliberation, formulation, and reassessment that necessitates specific skills. According to these definitions, writing denotes a medium that distinguishes persons in communication, distinct from verbal discourse, which encompasses certain skills enabling individuals to articulate and convey their views.

Elements in Writing Skills

Essay writing in English requires proficiency in several areas, such as mechanics, grammar, vocabulary, and composition (Lipson and Wixson, 2003). Composition describes the main component. It is characterized as a tool that facilitates the process of writing for students. The process usually includes brainstorming, outlining, drafting, editing, and publishing. The immediate part is about expanding the vocabulary. Actually, a writer cannot attain precision and clarity of thought without a lexicon, making it an integral part of writing. Furthermore, a writer's lexicon might act as a channel for their prior knowledge. An author can communicate with their audience and share ideas when they have access to relevant background material. Because of this, writers will be bewildered when they need to gather information on a specific subject in order to compose their works. The remaining three parts are the mechanics, application, and language structure. By contrast, authorial usage pertains to the language used to engage audiences in relation to events, demographics, and goals, while linguistic usage is a system of rules that organizes words into meaningful units.

This means that the author's choice of language conventions may vary depending on who they're writing for. Finally, let's talk about the mechanics. It makes use of uppercase and emphasis. In composition, they are both essential because they define meaning. People can utilize the right tone of voice, halt or end the discourse, and more while engaging in discussion or engagement. Some people just can't write. The mechanics then carry out the same operation but with written instructions. We also take into account the other points of view put forth by Canale and Swain (1982), which include proficiency in syntax, discourse, sociolinguistics, and strategy. As a result, teachers and students alike recognize the difficulty of developing strong writing skills, especially in contexts where English is a second or foreign language. Finally, composition, vocabulary, grammar, and mechanics are all parts of outstanding writing proficiency. Writing is considered a very difficult skill to master since it requires students to learn all of these things. Writing, along with speaking, listening, and reading, is considered one of the main advanced talents, according to Widiati and Cahyono (2006). Writing is a difficult skill to develop in a first language, according to Clifford (2008), because of the many components of composition, such as stating the main concept, choosing the right vocabulary, and following the rules of grammar. Consequently, there are certain methods that people might use to become better writers. Consequently, teaching students to type in different languages will be more challenging.

Methods

One of the critical choices that a researcher should make is to select an suitable design for the research. The descriptive design has been used as the most suitable one for investigating the connection between variables and displaying the difference between them to describe and analyse a phenomenon being studied (Gall, 2007). A Correlational research is considered as a descriptive study since it includes collecting data to decide the extent to which a correlation between two or more variables may occur (Al-Bakri & Salman, 2020; Gay et al., 2009).

Population and Sampling

The present study sample consists of (350) EFL students randomly selected from three Iraqi universities: Babil, Basrah and Mosul. (See Table 1).

Name of Iraqi Universities	**Sample**
Babil	66
Basrah	190
Mosul	104
Total	**360**

Table 1 The Sample of the Study

Description of the Study Instruments

a. Metacognitive Knowledge Writing Questionnaire (MAWQ)

The Schraw and Dennison questionnaire, implemented in 1994, aimed to gather data on students' metacognitive awareness in relation to their writing proficiency. The final configuration consists of a grand total of 30 components, which are classified into three separate facets: declarative knowledge, procedural knowledge, and conditional knowledge. The evaluation of each item is done using a five-point Likert scale. A score of 1 indicates "strongly agree," 2 indicates "agree," 3 indicates "disagree," 4 indicates "strongly disagree," and 5 indicates "neutral." The positive items are rated inversely, with a rating of 5 indicating "strongly agree" and a rating of 1 indicating "neutral."

By adding up the points that the responder gives to each choice, we get the total score for the scale. Accordingly, the respondent can get a maximum score of 150 and a minimum score of 30. There are a total of 30 questions in the survey, broken down into the three parts as follows:

a) Declarative Knowledge : (1-12)

b) Procedural Knowledge : (13-23)

c) Conditional Knowledge : (24-30)

b. Self-Regulation Questionnaire

The Brown et al. (1999) questionnaire has been used to assess students' self-regulation. The system comprises 37 components categorised into seven domains: planning and drafting, information management strategies, monitoring, revision, and evaluation. The scoring system is based on a five-point Likert scale, with the options of strongly agree, agree, disagree, strongly disagree, and neutral. Assign scores of 1, 2, 3, 4, and 5 to positive items accordingly, while

negative items are assigned scores in reverse order.

The total score for the questionnaire is determined by adding up the scores acquired by the respondent for each selected item on the scale. The maximum possible score that the respondent can achieve is 185, while the lowest possible score is 37.

c. Writing Performance Test

To accomplish the study objective, we implemented a writing performance assessment.

Celce-Murcia et al. (2014) define an emotive writing exam as a form of personal writing that involves composing letters or emails to friends in order to describe personal experiences.

The researcher formulates the test. The students must compose a 250-word essay in English on a specified topic to evaluate their writing proficiency. The writing subject is selected based on previously addressed issues and the criterion of authenticity. The writing section utilizes the analytic scoring scheme put forward by Brown (2007). The objective of this process is to yield more accurate and dependable data regarding pupils' writing proficiency. The scoring scheme comprises five categories for evaluating students' responses. Scorers assign a score ranging from 0 to 6 to each criterion, and students in this section receive a cumulative score between 6 and 30. To accomplish the primary objective of the study, we implemented a writing performance test.

Celce-Murcia et al. (2014) define an emotive writing exam as a form of personal writing that involves composing letters or emails to friends in order to describe personal experiences.

We select the writing topic based on previously addressed subjects and the criterion of genuineness. In order to evaluate the students' writing proficiency, they must compose a 250-word essay in English on a designated topic. The writing component utilizes the analytic scoring scheme put forth by Brown (2007). The objective of this process is to yield more accurate and dependable data regarding pupils' writing proficiency. The scoring scheme comprises five categories for evaluating students' responses. Scorers assign a score ranging from 0 to 6 to each criterion, and pupils in this section receive an overall score between 6 and 30.

During the examination, students must focus on five key elements of writing: content, organization, grammar, vocabulary, and mechanics, all of which are graded. Teachers administer the test to assess pupils' writing proficiency.

Results

The levels of CF and VP were determined by calculating the arithmetic means and standard deviations among Iraqi university EFL students. The discrepancy between the mathematical and theoretical means has been identified using a t-test for a single sample. With a theoretical mean of 42 and an arithmetic mean of 42.645, the participants' CF levels are high, according to the data manipulation. The standard deviation is 3.959. A t-value of 3.258 exceeds the crucial value of 1.96. Check out the second table.

Variable	**N**	**Arithmetic Mean**	**SD**	**Theoretical Mean**	**T-Values**		**Level of Significance (0.05)**	**d.f**
					Computed	**Critical**		

SR	400	42.645	3.959	42	3.258	1.96	Significant	399

Table 2 Arithmetic Mean, Standard Deviation, and T-test values of the MSI

There is a statistically significant relationship between the students' VP levels (arithmetic mean = 118.542, standard deviation = 17.891). The computed t-value of (26.318) is greater than the critical one with (330) degrees of freedom, indicating a statistically significant difference at the (0.05) level of significance. Students of English as a foreign language at Iraqi universities seem to have a respectable amount of VP.

The results also reveal that the theoretical and arithmetic means of the samples' VST and PVLT scores differ significantly, with the arithmetic means being favored. Given that the estimated t-values for VST and PVLT are higher than the essential one, we can conclude that the students possess good receptive and productive vocabulary knowledge (37.654, 12.921, respectively). Take a look at Table 3.

Variable	**N**	**Arithmetic Mean**	**SD**	**Theoretical Mean**	**T-Values**		**Level of Significance (0.05)**	**d.f**
					Computed	**Critical**		
SR	400	67.550	9.322	50	37.654	1.96	Significant	67.550
MA		50.992	9.275	45	12.921			
WP		118.542	17.891	95	26.318			

Table 3 The Arithmetic Mean, Standard Deviation, and T-values of VP

To see what percentage of students were correct at each word-frequency level, we dig deeper into the data. After peaking at 11.670 at the 2000-word level, the average score declines to 10.925 at the 3000-word level, 10.120 at the 5000-word level, 9.480 at the AWL, and 8.797 at the 10,000-word level, according to the data. A total of 65% of students at the 2000 level, 61% at the 3000 level, 56% at the 5000 level, 53% at the academic level, and 49% at the 10,000 level demonstrated productive vocabulary knowledge, according to the data.

Finding the correlation between CF and VP among Iraqi EFL university students and assessing the significance of the calculated correlation coefficients was done using the Pearson correlation coefficient and a T-test. Table 4 shows that although the computed coefficient between CF and VP overall is (0.499), the correlation coefficients between CF and (VST, PVLT) are (0.840, 0.841) correspondingly.

Variable	**N**	**Correlation Coefficient**	**T-test Value**		**Level of significance (0.05)**
			Computed	**Critical**	
		0.480	10.909	1.96	Significant

		0.481	10.931		Significant
		0.499	11.089		Significant

Table 4 The calculated Coefficients CF and VP

The estimated t-values of VST, PVLT, and VP (10.909, 10.931, and 11.089), respectively, are greater than the crucial one at a significance level of 0.05 and under 389 degrees of freedom, indicating a statistically significant direct connection between CF and VP (Table (4)). The results show that as CF increases, VP and receptive and productive vocabulary knowledge similarly rise among Iraqi EFL students.

Discussion of the Results

Results showed that there was a highly positive association between students' contextual focus (CF) and vocabulary proficiency (VP) among Iraqi university EFL students. Knowledge structure in the student's memory and retrieval capacity are affected by their cognitive inclination to move from associative to analytic modes of thinking, and vice versa, according to this result. By expanding the ways in which encoded words can be remembered and described, it helps in vocabulary acquisition.

Conclusion

The results of this study suggest that Iraqi university students who are learning English as a foreign language have a significant level of metacognitive awareness and a moderate level of self-regulation. Furthermore. The findings also indicate a notable association between participants' metacognitive awareness and self-regulation and their writing proficiency. Self-regulation skills are crucial for students' achievement, making it the most evident conclusion. Utilizing these tools enables individuals to effectively address any challenging problems they encounter throughout their educational journey and beyond, even after completing their studies.

References

Abdulelah, H., & Jasim, A. L. A. A. (2022). The Impact of Group Testing as a Strategy on University Students' Writing Composition Development. Alustath Journal For Human And Social Sciences, 61(1), 669.

Al Asadi, S. S., & Al-Issa, N. (2022). Using online platforms to improve writing. Journal of the College of Education for Women, 33(2), 43-54.

Al Saadi, S., & Shaima, A. L. (2009). The Effect of Story-Grammar Instruction on Poor College Students' Achievement of Narrative Texts' Theme Identification. Journal of the College of Education for Women, University of Baghdad, 20(4).

Al-Bakri, S. A. B., & Salman, A. M. (2020). Fluid, crystallized intelligence and language proficiency: A correlational study. Journal of Global Scientific Research, 9, 834-844.

Al-Kubaisy, I. R. M. (2018). New Perspectives in Teaching Writing Skill Communicatively. ALUSTATH JOURNAL FOR HUMAN AND SOCIAL SCIENCES, 225(1), 137-146.

Alsalihi, H. D. (2020). Main difficulties faced by EFL students in language learning. Journal of the College of Education for Women, 31(2), 19-34.

Amini, D., Anhari, M. H., & Ghasemzadeh, A. (2020). Modeling the relationship between metacognitive strategy awareness, self-regulation and reading proficiency of Iranian EFL learners. Cogent Education, 7(1), 1787018.

Ariyanti, A. (2016). Foreign language anxiety in academic writing. Dinamika Ilmu, 17(1), 143-152.
Arnidah, A., Syamsiah, D., Sinaga, A. V., & Aswan, D. (2022). The Development of Blended Learning in Learning Evaluation Subject in Universities in Makassar City. AL-ISHLAH: Jurnal Pendidikan, 14(3), 3289-3302.
Aryanti, N., Ardiansyah, W., & Ujihanti, M. (2018). Problem-Based Learning Model for Teaching Writing: A Literature Review. Journal Polingua: Scientific Journal of Linguistics, Literature and Language Education, 7(2), 32-36.
Brown A. Metacognition, executive control, self-regulation, and other more mysterious mechanisms.In: Weinert F, Kluwe R, ed. by. Metacognition, motivation and understanding. Hillsdale, N.J: Erlbaum; 1987. p. 65–116.
Brown, J. D. (2007). Multiple views of L1 writing score reliability.
Brown, S. L., & Schroeder, P. E. (1999). Spatial patterns of aboveground production and mortality of woody biomass for eastern US forests. Ecological Applications, 9(3), 968-980.
Clarke, P. B., Lewis, T. F., Myers, J. E., Henson, R. A., & Hill, B. (2020). Wellness, emotion regulation, and relapse during substance use disorder treatment. Journal of counseling & development, 98(1), 17-28.
Clifford, C. (2008). BREAD AND WINE. In Learned Ignorance in the Medicine Bow Mountains (pp. 147-150). Brill.
Corkill, A. J. (1996). Individual differences in metacognition. Learning and individual differences, 8(4), 275-279.
Everson, H. T., & Tobias, S. (1998). The ability to estimate knowledge and performance in college: A metacognitive analysis. Instructional science, 26(1), 65-79.
Fajri, I., Yusuf, R., & Azhari, B. (2020). Innovation model of citizenship education learning in the 21st-century skill-learning environment of students in Aceh. Journal of Critical Reviews, 7(16), 2334-2343.
Flavell J. Speculations about the nature and development of metacognition. In: Weinert F, Kluwe R,ed. by. Metacognition, motivation and understanding. Hillsdale, N.J: Erlbaum; 1987. p. 21–29.
Flavell, J. (1976). Metacognitive aspects of problem-solving. In L. Resnick (Ed.), The Nature of Intelligence. Hillsdale, NJ: Erlbaum Assoc.
Gall, M. D. (2007). Gall. JP & Borg (2007. Educational Research. An Introduction. Pearson.
Gay, G. (2009). Preparing culturally responsive mathematics teachers. In Culturally responsive mathematics education (pp. 203-220). Routledge.
Harrison, G. M., & Vallin, L. M. (2018). Evaluating the metacognitive awareness inventory using empirical factor-structure evidence. Metacognition and Learning, 13, 15-38.
Husin, M. S., & Nurbayani, E. (2017). The Ability of Indonesian EFL Learners in Writing Academic Papers. Dinamika Ilmu, 17(2), 237-250.
Hyytinen, H., Ursin, J., Silvennoinen, K., Kleemola, K., & Toom, A. (2021). The dynamic relationship between response processes and self-regulation in critical thinking assessments. Studies in Educational Evaluation, 71, 101090.
Kallio, H., Virta, K., & Kallio, M. (2018). Modelling the components of metacognitive awareness. International Journal of Educational Psychology, 7(2), 94-122.
Lipson, M. Y., & Wixson, K. K. (2003). Assessment and instruction of reading and writing difficulty: An interactive approach. Allyn & Bacon.
Mbato, C. L., & Cendra, A. N. (2019). Efl undergraduate students' self-regulation in thesis writing: help-seeking and motivation-regulation. Efl undergraduate students' self-regulation in thesis writing: help-seeking and motivation-regulation, 5(1), 66-82.
Mohammed, H. A., & Jasim, A. A. (2022). The Impact of Group Testing as a Strategy on University

Students' Writing Composition Development. Alustath, 61(1).
Mohammed, I. J. (2023). The Role of Questioning the Author Strategy in Improving Students Comprehension of Poetic Texts. journal of Language Studies, 7(1), 1-11.
Nietfeld J, Cao L, Osborne J. Metacognitive monitoring accuracy and student performance in the postsecondary classroom. The Journal of Experimental Education. 2005;74(1):7–28.
Ormrod J. Human Learning. 4th Ed. Upper Saddle River, N.J.: Pearson; 2004.
Owusu, P., & Essel, G. (2017). Causes of students' stress, its effects on their academic success, and stress management by students.
Pincas, A. (2013). Structural linguistics and systematic composition teaching to students of English as a foreign language. Landmark Essays on ESL Writing: Volume 17, 1.
Saalh, S. M., & Esmaeel, D. H. (2022). EFL student-teachers' perception in the culture of thinking. Journal of the College of Education for Women, 33(2), 1-12.
Schraw G, Dennison R. Assessing metacognitive knowledge. Contemporary Educational Psychology. 1994;19:460–475.
Schraw G, Moshman D. Metacognitive Theories. Educational Psychology Review, 1995;7(4):351– 371.
Schraw G. The effect of knowledge on local and global monitoring. Contemporary Educational Psychology. 1994;19:143–154.
Schraw, G. (2001). Promoting general metacognitive awareness. In Metacognition in learning and instruction: Theory, research and practice (pp. 3-16). Dordrecht: Springer Netherlands.
Schraw, G., Crippen, K. J., & Hartley, K. (2006). Promoting self-regulation in science education: Metacognition as part of a broader perspective on learning. Research in science education, 36, 111-139.
Schunk, D. H., & Zimmerman, B. J. (2012). Self-regulation and learning. Handbook of Psychology, Second Edition, 7.
Sperling R, Howard B, Staley R, DuBois N. Educational Research and Evaluation. 2004;10(2):117–139.
Swain, M., & Canale, M. (1982). The role of grammar in a communicative approach to second language teaching and testing.
Wagener, B. (2018). The importance of affects, self-regulation and relationships in the writing of a master's thesis. Teaching in Higher Education, 23(2), 227-242.
Widiati, U., & Cahyono, B. Y. (2016). The teaching of EFL writing in the Indonesian context: The state of the art. Jurnal Ilmu Pendidikan Universitas Negeri Malang, 13(3), 107135.
Wilson, D., & Conyers, M. (2016). Teaching students to drive their brains: Metacognitive strategies, activities, and lesson ideas. Ascd.