

## Metalinguistic Awareness on the Reading Comprehension Skills of EFL Learners

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### Abstract

*This study was conducted to portray the academic accomplishment of EFL learners in an Iraqi setting, depict the metalinguistic awareness of EFL learners, and discover out the coordinate and roundabout relationship between the academic accomplishment and metalinguistic awareness of EFL Iraqi learners. To fulfill these goals, a correlational design was adopted. Accordingly, a series of correlational analysis was used to determine whether the metalinguistic awareness of the learners yielded a significant contribution to reading comprehension in English. To trace the contribution of the aspects of metalinguistic awareness to reading comprehension a regression analysis was also conducted on the reading comprehension scores and metalinguistic awareness data collected from 60 Iraqi EFL learners who were homogenized in terms of their proficiency level based on their Quick Placement Test scores.*

*The results indicated that there was a significant correlation between metalinguistic awareness and reading comprehension. That is, the researcher found both direct and indirect relationship between metalinguistic awareness and reading comprehension mediated through academic achievement. Notably metalinguistic awareness was a stronger mediator than academic achievement. With respect to cross-language results, this research confirmed the direct contribution of English metalinguistic awareness to English reading comprehension and its indirect contribution through academic achievement. The implications of the results of the study for language learners and teachers were also elaborated.*

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## **Introduction**

Different studies have displayed proof that metalinguistic awareness and reading familiarity may be utilized to foresee reading comprehension in an assortment of circumstances. Metalinguistic awareness has been recognized as a principal component of cognitive qualities that anticipate reading comprehension capacity through translating and word acknowledgment on the single-word cognition, concurring to Dong et al., (2020).

### **Statement of the Problem**

Metalinguistic awareness, moreover known as metalinguistic capacity alludes to the capacity to deliberately reflect on the nature of dialect, plays an urgent part in dialect learning abilities particularly the way learners learn how to examined. Learners with wasteful comprehension and generation forms might got to depend on their metalinguistic capacities in arrange to memorize certain viewpoints of dialect.

Reading comprehension capabilities and metalinguistic awareness too have an interesting affect in English acquisition, particularly for Iraqi EFL grown-up learners. Metalinguistic awareness has its special position within the development of English scholarly reading capacity, and it is the key of reading advancement. Be that as it may, as distant as English learning for Iraqi learners is concerned, the writing inferred that metalinguistic awareness in reading comprehension had been paid less to within the past few a long time.

### **Objectives of the Study**

To deepen our understanding of Iraqi intermediate EFL learners' metalinguistic awareness and the academic achievement, this longitudinal study has been conducted with a focus on reading comprehension awareness among Iraqi learners. Specifically, it aims to:

1. Portray the academic accomplishment of EFL learners in an Iraqi setting;
2. Depict the metalinguistic awareness of EFL learners;
3. Discover out the coordinate and roundabout relationship between the academic accomplishment and metalinguistic awareness of EFL Iraqi learners.

### **Research Questions**

This study aimed to explore direct and indirect effects of metalinguistic awareness the EFL adult learners' reading comprehension skills. The following three research questions guiding this study:

1. What is the impact of metalinguistic awareness on reading comprehension of Iraqi intermediate EFL learners?
2. How does metalinguistic awareness make direct or indirect contribution to reading comprehension?
3. Is there relationship between the academic achievement and metalinguistic awareness of EFL Iraqi learners?

### **Research Hypotheses**

The following null hypotheses were formulated based on the three research questions of the study:

Metalinguistic awareness is not predictive of reading comprehension of Iraqi EFL learners?

Metalinguistic awareness and reading comprehension do not make any direct or indirect contribution to reading comprehension?

There is no relationship between the academic achievement and metalinguistic awareness of EFL Iraqi learners.

## **Literature Review**

### **Theoretical Models of Reading Comprehension**

The term 'literacy' is regularly utilized to include a wide extend of aptitudes with inquire about frequently centering on the act of reading (Delgado et al., 2018). The definition of proficiency expands past reading itself. It is the composed and verbal dialect that a person employs on a day-by-day premise and joins reading, composing, talking, and tuning in.

The term proficiency is utilized all through this proposition to allude to zones that transcendently relate to reading, but that moreover consolidate extra aptitudes of composing, and expressive and open dialect. Reading and comprehending are two nearly conversely terms, as the reason and extreme objective of reading is comprehension. For clarity all through this study , the term 'reading comprehension' will be utilized to clarify

the reference to what can be depicted as the understanding of composed content (Delgado et al., 2018).

Evaluation of reading comprehension remains complex as the method of reading comprehension cannot be directly observed (Pearson, 2009). To attain reading comprehension, the reader must effectively move through a few forms that coordinated distinctive contributing sources of data. Numerous hypothetical models have been proposed that endeavor to clarify and portray the particular forms attempted in reading comprehension. Not only do such models give a clarification of the method of reading comprehension, they too portray the contributory components required to achieve capable reading comprehension ability. Besides, hypothetical models have coordinated viable suggestions as they can offer assistance distinguish where deficits in comprehension exist, and permit focused on instruction and mediation to be outlined to extend an individual's reading comprehension aptitudes (Alvermann, Unrau, & Ruddell, 2013).

Numerous distinctive hypothetical models of reading comprehension have been proposed, however Paris and Hamilton (2009) state that given the significance of reading comprehension for learners' proficiency and learning, it is shocking that there are so few hypotheses about it.

There are indeed less reading comprehension models that are particular to the grown-up populace as most hypothetical systems have been drawn from child information. There are hence generally few models that completely clarify the method of reading comprehension in grown-ups. Existing hypothetical models of reading comprehension that can be connected to the grown-up populace are sketched out and talked about underneath.

### **Stage Models of Reading Comprehension**

Stage models of reading comprehension endeavor to portray an arrangement of stages amid which a person secures particular abilities that lead to capable reading comprehension. The thought that abilities can be obtained in a particular arrange is central to the organize demonstrate hypothesis of reading comprehension. in differentiate to later models which ordinarily outline less unbending, and less prescriptive movements within the securing of reading comprehension. Chall's (1996) formative demonstration of six-stages is one of the

foremost unmistakable stage models of reading comprehension improvement within reading.

Pishkar (2016) sketched out six successive stages through which learners pass within the course to reading comprehension. Amid the primary stage, pre-reading abilities such as print concepts, letter information, and phonemic awareness are procured. Within the moment organize, learners ordinarily have started school and have begun to create translating aptitudes. The third arrange is comprised of building locate word vocabularies and expanding familiarity, whereas the fourth arrange recommends that learners will make the move from 'learning to read', to 'reading to learn'. At long last, the fifth and 6th stages illustrate a capacity to comprehend more complex content. The fifth organize ordinarily requires learners to be able to bargain with more than one perspective, and have the capacity to procure information of complex concepts. Finally, the 6<sup>th</sup> stage focusses on the child's capacity to studied helpfully, that is, building information and understanding from their reading of the composed content.

When this demonstrate was to begin with proposed in 1967, other arrange hypotheses such as Piaget's cognitive advancement hypothesis (Piaget, 1964) were overwhelming. It in this manner appeared conceivable that a successive approach might moreover be agent of the method of reading comprehension. In spite of their conspicuousness, organize models have been restricted in their application to reading comprehension (and other angles of proficiency advancement) for several reasons. They don't consider the distinction of learners, which consecutive development through each organize may not be exact for all people (Snowling, Hulme, & Country, 1997).

### **Metalinguistic Awareness**

Three domains of metalinguistic awareness have been investigated in previous research: word awareness, syntactic awareness, and phonological awareness (Table 1.).

Table 1. Metalinguistic Awareness Domain Measurements in Previous Studies

Domain	Measurements
Word awareness	Word segmentation task
	Meaning and referent task

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	Symbol substitution task
	Nonphysical nature task
Syntactic awareness	Grammaticality judgment task
	Grammaticality error correction task
	Grammaticality error correction and justification task
	Sentence ambiguity task
	Grammaticality judgment with misleading cues
Phonological awareness	Syllable awareness task
	Onset-rime awareness task
	Phonemic awareness task
	Tone awareness task

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### **Word Awareness**

The writing has concentrated on four experiences that learners ought to pick up some time recently they are completely mindful of the unique include of words. As recorded in Table 2.1, the primary is the awareness of a fragmented prepare that confines a word as a noteworthy unit. This sort of awareness is ordinarily inspected through word division errands. For occasion, a child will be inquired to number the number of words in a sentence or characterize what a word is to illustrate information of the suitable boundaries (Ben-Zeev, 1977). In this assignment, learners must overcome the characteristic technique of paying consideration to meaning and instep pay consideration to the word boundaries (Fox & Routh, 1980). The common inclination to go to meaning may anticipate youthful learners from understanding this issue.

The moment awareness is the solidness of implications of the words, which is as a rule tried in meaning and referent errands. The point of these assignments is to evaluate learners 's conviction within the solidness of the meanings of words within the confront of devastation of the word 's experimental referent. For case, Pishkar (2016) conducted a think about in which learners were inquired in the event that the meaning of a word might stay steady indeed when the referenced question had ceased to exist, such as the proceeded presence of the word giraffe eve in the event that there were no giraffes cleared out within

the world. This assignment not only evaluates bilingual learner's phonetic adaptability but also gages learner 's thinking capacity for issues that expanded past the space of dialect. The third sort of word awareness is the self-assertive connection between words and their assigned implications. Image substitution errands are continuously utilized to test this sort of metalinguistic information. The fourth type of word awareness is the nonphysical nature of words. Learners were asked whether they could sense the physical properties of the objects that words represented (Cummins, 1978).

### **Syntactic Awareness**

Syntactic awareness alludes to the ought to make a judgment almost the syntactic adequacy of a sentence. The primary sort of syntactic awareness errand includes a grammaticality judgment errand. The presumption of this assignment is that blunders can be identified as it were in case consideration is coordinated to the shape of the sentence. Since normal preparing of dialect takes more prominent account of meaning, the redirection to create constitutes a viewpoint of metalinguistic working. As a test of dialect capability, the suspicion is that as it were local speakers can make solid judgments around sentence worthiness, so a comparison between non-natives and locals in their judgment choices gives a file of how capable or —native-like the learner is.

## **Methodology**

### **Research Design**

The present study was conducted to investigate the effects of different aspects of metalinguistic awareness of EFL learners, on their reading comprehension and language achievement in English. The design of this study was correlational and was aimed at measuring the contribution of different aspects of metacognitive awareness to the reading comprehension of the participants and their language achievement. In order to do so, in this study, a series of correlational analysis was used to determine whether the metalinguistic awareness of the learners yielded a significant contribution to reading comprehension in English. To trace the contribution of the aspects of metalinguistic awareness to reading comprehension a regression analysis was also conducted which is considered to be a more complicated correlational analysis procedure.

### **Participants**

The participants of this study were 60 Iraqi EFL learners who are studying at three different language institutes in Baghdad. The participants' level of proficiency was considered to be intermediate with reference to the textbook they were covering (American Files 2); the learners were homogenized using a placement test (Quick Oxford Placement Test). All the participants were from Iraq and their first language was Arabic. They and their age ranged from 16 to 18 years old. This age range is significant since their cognitive development were comparable and were not so different to leave a negative impact on the results of the study. It is worth mentioning that the sampling procedure was convenience sampling due to the fact that the researcher was by no means in the position to conduct randomized sampling. Moreover, to control the role of gender as an intervening variable which may affect the learners' performance on achievement test, reading comprehension test and metalinguistic awareness test, the researcher selected female learners only. That is, the population of the study included female EFL learners in language institutes in Baghdad. **Data Collection Instruments**

There were four data collection instruments in this study. They are described in the following sections:

#### **Oxford Quick Placement Test (OQPT)**

This test had 60 multiple choice questions which assessed the test taker's knowledge in grammar, vocabulary, reading, and **writing**. Each test-taker whose score was between 30 and 39 was identified as an intermediate English learner (Allan, 2004). The **reliability** of test scores in this study was found to be .78, using KR-21.

#### **Metalinguistic Awareness Scale**

A developing body of investigation proposes that speakers of two languages instead of one, appear to be more prominent in expressing knowledge of basic components of language (Bialystok, 1988). The primary sort of metalinguistic tasks utilized in this research was an adjustment of the one utilized by Galambos and Goldin-Meadow (1990). The further sort of task centered on the subjects' capacity in phonetic control. As kept up by Krashen (1981) checking the generation of the target dialect is more effective when the consideration is centered on phonetic control. The researcher-made tests (see Appendix B) of ungrammatical structures and interpretation tasks were adjusted from Modirkhamene

(2008). The reliability of the instrument, an index of internal consistency, KR-21, was calculated for each instrument. the reliability index for the first task was .81, and for the second task was .78, respectively.

### **Reading Comprehension Test**

A 20-item reading comprehension test (Appendix C) was used in this study to test learners' reading comprehension before and after the treatment. This test contained four passages followed by five questions testing the main idea, the purpose of the writer, and scanning for details, and inferencing. The researcher also piloted the reading test on a similar group of learners to determine the reliability of the test. The test was piloted on 9 female learners of the same level. This test designed based on the constructionist model of reading comprehension which accounts for both bottom-up and top-down processes. According to the scores obtained from these learners, the researcher calculated KR-21 index. The reliability index was found to be .76 which is considered to be in acceptable range.

### **Achievement Test**

The Preliminary English Test (PET) (Preliminary English Test, 2010) was used to measure the achievement of the learners (Appendix D). The reading section of the test had 9 sections and 56 questions. Parts 1–5 dealt with reading skills that expected the participants to read and understand the written materials presented in the form of brochures, signs, magazines, and newspapers. They also had to use their basic knowledge of grammar and vocabulary to complete different types of tasks such as filling in the blanks, completing gapped sentences, selecting the right sentence for each gap in a given text, and answering multiple choice questions about a given text.

### **Procedure**

This study will be conducted in three different English language institutes in Iraq and the collection of data was run as described below.

As the first step, the OQPT was given to the participants to homogenize them in terms of their proficiency level since this research was delimited to intermediate level. Then, sixty participants whose scores were within the range of two standard deviations above and below the observed mean were selected from the original 87 learners in the three institutes.

The next step was informing the learners about the purpose of the study. Then the researcher gave the reading comprehension test and the metalinguistic scale to the learners. They had 40 minutes to answer the reading comprehension test and also had an extra 20 minutes to answer the metalinguistic awareness scale.

Two weeks later, the researcher approached the learners at the institute again and asked them to take part in the achievement test (PET). In order to make sure that the learners were doing their best on the tests, achievement test and reading comprehension test, they were told that their scores on these two tests would be counted for their final score in that semester.

## **Data Analysis**

The obtained data of the study were analyzed using Statistical Package for Social Sciences (SPSS) software version 24.0. Both descriptive and inferential statistics were used for this purpose. The descriptive statistics that were used by the researcher will be frequency, mean, standard deviation, skewness and kurtosis. The inferential statistics that were employed in this study were correlational statistics and linear regression analysis.

## **Results**

### **Descriptive Statistics of Oxford Quick Placement Test (QOPT)**

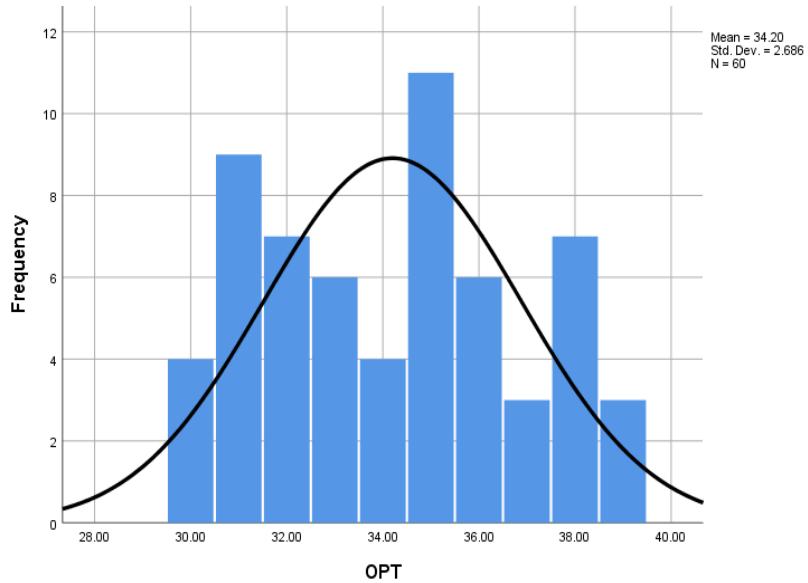
This section reports the descriptive statistics related to QOPT scores conducted in this study to homogenize the learners.

Table 2

*Descriptive Statistics for QOPT Scores*

	N	Minimu m	Maximu m	Mean	Std. Deviation	Skewness	Kurtosis
OPT	60	30.00	39.00	34.20	2.68	.13	-1.11

Table 2 shows that the distribution of the scores is normal considering the fact that the observed skewness and kurtosis indices are between  $\pm 2$ . Moreover, the observed mean (34.20) indicated that the learners are at intermediate level since it is within the range of 30-39. The normality of the distribution of QOPT scores is also shown in the following graph.



**Figure 1.** The Normality of the Distribution of QOPT Scores

### Results of Research Question 1

The first research question was:

What is the impact of metalinguistic awareness on reading comprehension of Iraqi intermediate EFL learners?

The following null hypothesis was formulated accordingly:

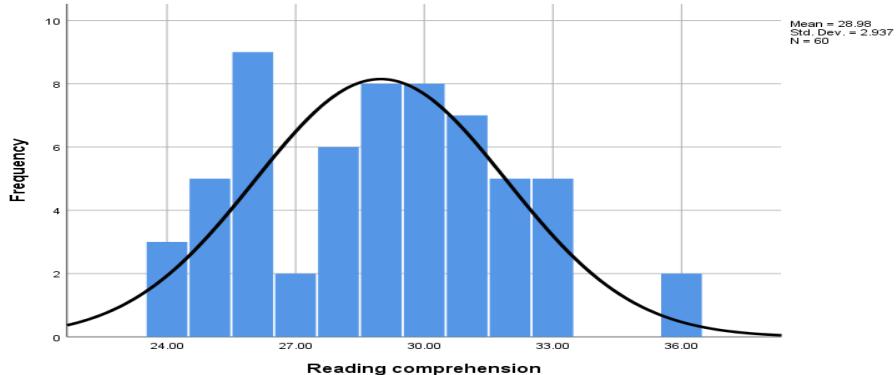
Metalinguistic awareness is not predictive of reading comprehension of Iraqi EFL learners?

To test this null hypothesis, a Pearson correlation test was used. The results are shown below.

**Table 3.**

*Descriptive Statistics for Metalinguistic Awareness and Reading Comprehension Scores*

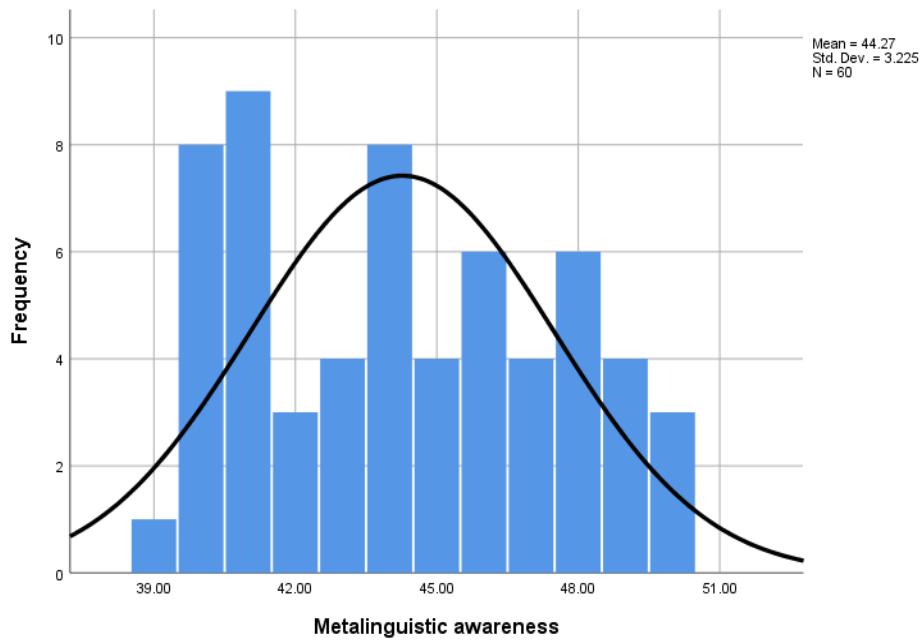
	N	Minimu m	Maximu m	Mean	Std. Deviation	Skewne ss	Kurtosi s
Reading comprehension	60	24.00	36.00	28.98	2.93	.18	-.50
Metalinguistic	60	39.00	50.00	44.26	3.22	.15	-1.21



awareness

Table 3 shows that the distributions of the metalinguistic awareness and reading comprehension test scores are normal considering the fact that the observed skewness and kurtosis indices are between  $\pm 2$ . The normality of the distribution of these two sets of scores is also shown in the following graphs.

**Figure 2.** The Normality of the Distribution of Reading Comprehension Scores



**Figure 3.** The Normality of the Distribution of Metalinguistic Awareness Scores

To examine the correlation between the two variables, Pearson correlation test was used. The results are shown in Table 4.

**Table 4.**

***Descriptive Statistics for Metacognitive Awareness and Reading Comprehension***

	Mean	Std. Deviation	N
Reading comprehension	28.98	2.93	60

Metalinguistic awareness	44.26	3.22	60
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Table 4 shows that the observed mean for reading comprehension test score was 28.98, and that of the metalinguistic awareness was 44.26. In addition, the standard deviation indices showed that the distribution of the data did not suffer from dispersion. This may be due to the fact that the learners were homogenized in terms of their general language proficiency.

**Table 5.**

*Correlations for Reading Comprehension and Metalinguistic Awareness*

		Reading comprehension	Metalinguistic awareness
Reading comprehension	Pearson Correlation	1	.741 **
	Sig. (2-tailed)		.000
	N	60	60
Metalinguistic awareness	Pearson Correlation	.741 **	1
	Sig. (2-tailed)	.000	
	N	60	60

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 5 depicts that the two variables, reading comprehension and metalinguistic awareness are correlated. That is, there was a strong direct correlation between them ( $r = .74$ ,  $p = .00 < .05$ ). that is, the higher the metalinguistic awareness of the learners, the higher their reading comprehension ability. Based on these statistics, the first null hypothesis of the study was rejected.

## Results of Research Question 2

The second research question of the study was:

How does metalinguistic awareness make direct or indirect contribution to reading comprehension?

The following null hypothesis was formulated for the second research question:

Metalinguistic awareness and academic achievement do not make any direct or indirect contribution to reading comprehension.

In order to answer this research question, a linear regression analysis was conducted. The results are shown below. The assumptions were also confirmed before reporting the results.

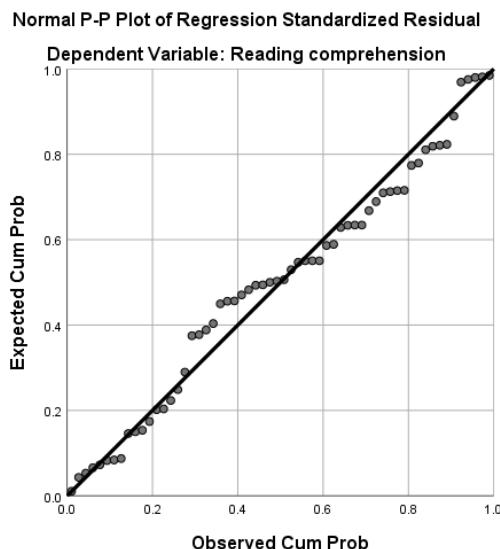
**Table 6.**

*Residuals Statistics for the Regression Model*

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	25.02	33.56	28.98	2.33	60
Residual	-4.16	3.92	.00	1.77	60
Std. Predicted Value	-1.69	1.96	.00	1.00	60
Std. Residual	-2.30	2.16	.00	.98	60

a. Dependent Variable: Reading comprehension

Table 6 depicts that the residuals reported for this model is .00 which indicated the fact that the linearity condition for running regression analysis was met. This is also shown in the graph below.



**Figure 4.** The Residual Plot for the Regression Model

Beside linearity assumption, the collinearity assumption was also confirmed. The results are shown below.

**Table 7.**

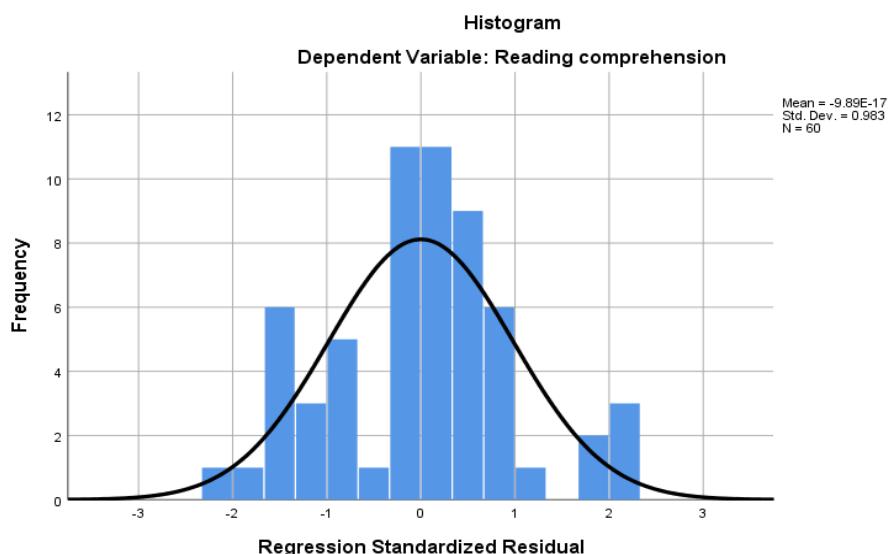
*Collinearity Diagnostics for Metalinguistic Awareness and Academic Achievement*

Dimension	Eigenvalue	Condition Index	Variance Proportions		
			(Constant)	Metalinguistic awareness	Achievement
1	2.99	1.00	.00	.00	.00
2	.00	30.42	.98	.08	.18
3	.00	46.54	.02	.92	.82

a. Dependent Variable: Reading comprehension

Based on the statistics in Table 4.6, it was argued that the collinearity condition was met for running linear regression model. Moreover, the normality of the distribution of the standardized reading comprehension scores is shown in the following graph.

**Figure 5.** Normality of Standardized Residual of Reading Comprehension Scores



With reference to the fact that the assumptions of regression analysis was met, the researcher conducted linear regression analysis which are shown below.

**Table 8.**

*ANOVA for Regression Model*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	322.06	2	161.03	49.10	.00 <sup>b</sup>
Residual	186.92	57	3.27		

Total	508.98	59
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a. Dependent Variable: Reading comprehension  
 b. Predictors: (Constant), Achievement, Metalinguistic awareness

Table 8 indicated that the emerged model in which reading comprehension test score is dependent variable and academic achievement and metalinguistic awareness are predictors, is statistically significant ( $F(59,2) = 49.10, p = .00 < .0$ ).

**Table 9.**

*Coefficients of the Regression Model*

Model	Unstandardized		Standardized Coefficients	t	Sig	Collinearity	
	Coefficients					Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-4.31	3.38		-	.20		
				1.27			
Metalinguistic awareness	.37	.11	.41	3.44	.00	.44	2.26
Achievement	.36	.10	.43	3.59	.00	.44	2.26

a. Dependent Variable: Reading comprehension

Table 9 shows that both of the predictors in this model, metacognitive awareness ( $t = 3.44, p = .00 < .05$ ) and academic achievement ( $t = 3.59, p = .00 < .05$ ) are significant predictors of reading comprehension scores, and account for 41 percent and 43 percent of the variations of the reading comprehension scores, respectively. Based on these statistics, it was concluded that the second null hypothesis of the study was rejected.

### Results of Research Question 3

The third research question of the study was:

Is there relationship between the academic achievement and metalinguistic awareness of EFL Iraqi learners?

The following null hypothesis was formulated, accordingly:

There is no relationship between the academic achievement and metalinguistic awareness of EFL Iraqi learners.

To test his hypothesis, a Pearson correlation test was conducted. The results are shown below.

**Table 10.**

*Descriptive Statistics for Metalinguistic Awareness and Academic Achievement*

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Metalinguistic awareness	60	39.00	50.00	44.26	3.22	.15	-1.212
Achievement	60	40.00	52.00	45.38	3.50	.06	-1.096

Table 10 demonstrates that the distributions of the metalinguistic awareness and academic achievement scores are normal since the observed indices for skewness and kurtosis are between -2 and +2.

**Table 11.**

*Correlations between Metalinguistic Awareness and Academic Achievement*

		Metalinguistic awareness	Achievement
Metalinguistic awareness	Pearson Correlation	1	.74 <sup>**</sup>
	Sig. (2-tailed)		.00
	N	60	60
Achievement	Pearson Correlation	.74 <sup>**</sup>	1
	Sig. (2-tailed)	.00	
	N	60	60

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 11 showed that the correlation between metalinguistic awareness and academic achievement is significantly direct and strong ( $r = .74$ ,  $p = .00 < .05$ ). Based on these statistics, it was argued that the third null hypothesis was rejected. In other words, the higher the metalinguistic awareness of the learners, the higher their academic achievement.

## **Discussion and Conclusions**

### **Discussion**

The purpose of this study was to conduct an empirical examination of the relationships, both direct and indirect, between metalinguistic awareness and reading comprehension in EFL learning context among Iraqi speakers of English as a foreign language. Within this framework, the researcher specifically sought to investigate the contribution of metalanguage awareness and reading comprehension in English as well as the relationship between metalinguistic awareness and academic achievement in English.

The results indicated that there was a significant correlation between metalinguistic awareness and reading comprehension. That is, the researcher found both direct and indirect relationship between metalinguistic awareness and reading comprehension mediated through academic achievement. Notably metalinguistic awareness was a stronger mediator than academic achievement. With respect to cross-language results, this research confirmed the direct contribution of English metalinguistic awareness to English reading comprehension and its indirect contribution through academic achievement.

The results of his study were in line with those of previous study. According to Pishkar (2016) metalinguistic awareness, especially syntactic awareness facilitated reading by allowing learners to employ syntactic parsing. In addition to recognizing simple words in a sentence, metalinguistic awareness, in conjunction with other skills such as morphological awareness, can help learners read words. This direct effect is consistent with the notion that the effect of metalinguistic awareness on reading comprehension, as confirmed in the previous studies (Deacon & Kiefer, 2018; Sohail et al., submitted). Deacon and Kiefer (2018) proposed that, when a learner reads, there may be an indirect relationship between metalinguistic awareness and reading comprehension through word reading. However, as reading development becomes an established skill, the relationship with metalinguistic awareness turns into a direct relationship; the results of the study confirmed that academic achievement as measured by a language proficiency test may have a role to play. Extending Pishkar (2016) to EFL learners, this study suggested that the direct effect was mainly determined by the level of metalinguistic awareness.

English metalinguistic awareness, as shown in this study, had an indirect effect on English reading comprehension mediated through academic achievement. This finding mirrors the within-language mediators. These findings are expected due to the developmental stage of the bilingual participants in the present study (Foursha-Stevenson & Nicoladis, 2011). Given that learners are still intermediate readers of English, their reliance on passage decoding fits with their current developmental stage. Despite learners' intermediate levels of English proficiency, metalinguistic awareness was related reading comprehension. This was seen in the previous research, for example, Foursha-Stevenson & Nicoladis (2011), Koda (2007), and Siu and Ho (2015) and confirmed that that at least some underlying mechanisms of metalinguistic awareness are language universal.

## **Conclusions**

With reference to the meticulous review of the related literature on metalinguistic awareness research, especially, the studies conducted on Iraqi and Arab learners of English, the researcher came up with a research gap about the relationship between metalinguistic awareness and reading comprehension of EFL learners in Iraq. This motivated the researcher to trace the direct and indirect effect of metalinguistic awareness on reading comprehension. This empirical study adopted a correlational design to answer the research questions.

The results of the statistical analyses done to test the null hypotheses of the research indicated that there was significant correlation between metalinguistic awareness of the learners and their reading comprehension; moreover, a significant correlation was detected between their metalinguistic awareness and academic achievement, as measured via a proficiency test, PET.

This study specifically built upon the monolingual models of metalinguistic awareness proposed in previous studies, for example, Deacon and Kiefer (2018), which posited the effects of metalinguistic awareness on reading comprehension accounting for the learner's proficiency. The direct within-language relationship from English syntactic awareness to English reading comprehension without any mediation through academic achievement, as it was revealed by the direct strong correlation coefficient, it was argued that most learners surpassed the need to rely on decoding to achieve reading comprehension. At the same

time, indirect effects of syntactic awareness on reading comprehension mediated through academic achievement, as it was shown by regression analysis, indicated that the learners are in transitional phase from decoding to whole word reading through vocabulary.

### **Implications of the Study**

The results of this study confirmed an undeniable role of metalinguistic awareness in gaining better reading comprehension ability and academic achievement among the Iraqi learners of English as a foreign language. With respect to educational implications, the level of English metalinguistic awareness demonstrated in the present study may be related to the teaching practice of the current programs. The current program does not have specific requirements in terms of the content of teaching. As a result, there is a reliance upon teachers to decide which grammar points are relevant and how these points are presented in lessons. Our results suggest that explicit and systemic instruction of metalinguistic knowledge may enhance the learner's metalinguistic awareness, which in turns contributes to increased reading comprehension. It is also important to develop proper instructional techniques for grammar and syntax, as well as morphology, so that the instruction is engaging to EFL learners. Furthermore, our results have implications for EFL assessment. As some aspects of metalinguistic awareness may be universal and Iraqi EFL language skills are in their elementary level, it may be beneficial to assess metalinguistic awareness initially in English. This is significant because it now provides a framework for the optimal language assessment, as well as the language of assessment, in order to obtain accurate results and implement efficient intervention, if necessary.

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