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## Correlation of EFL Learners' Metalinguistic Knowledge and Grammatical Accuracy

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### Abstract

*Grammar teaching has been a topic of debate for a considerably long time. Researchers and teachers discussed the benefits and shortcomings of its explicit instruction, which entails students' awareness of metalanguage. Although much research has investigated metalanguage, its effect on improving students' grammatical accuracy is still an unresolved issue, and the research concerning it is relatively limited. Nevertheless, it is widely recognised that metalanguage is beneficial for grammar teaching. Responding to this research gap, the present study investigated the relationship between EFL students' metalinguistic knowledge and their grammatical accuracy. The researcher adopted a descriptive quantitative research design where two tests were administered to undergraduate participants (n=124). The tests scores were analysed using the Blackboard item-analysis tool and SPSS software to generate statistical information regarding the participants' scores. The study findings revealed a significant positive correlation between the scores. This correlation was moderate and occurred at the students' overall score level. Moreover, the study revealed a proper level of metalinguistic knowledge that was not in perfect parallel with students' grammatical accuracy. The generated findings can provide insightful implications for grammar teaching. This finding is significant for EFL teachers as it supports claims on the importance of explicit grammar instruction. It is also essential for learners as they can use metalanguage to develop their learning. Moreover, the study suggests areas that may be helpful for researchers to further explore the issue.*

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## 1. INTRODUCTION

A commonly asked question about grammar instruction is whether to teach it explicitly or implicitly (Harun et al., 2017). Both methods have undergone assessment and analysis, creating a heavy debate on grammar teaching methods. Implicit teaching (and learning), on the one hand, received greater attention with the calls for a more meaningful acquisition of second language (L2) or foreign language (FL). These calls led to the advent of the Communicative Language Teaching (CLT) method (Savignon, 1987), which is a “largely implicit” approach (Mallia, 2016). Nevertheless, explicit instruction remained the favorite of teachers and researchers, especially after a considerable decline in the accuracy level of students’ who studied through CLT was noticed (Alderson et al., 1997; Munalim, 2015).

In the EFL setting, the issue becomes more checkered. It was found that numerous difficulties are experienced by both learners and teachers in terms of grammar instruction. The most prominent challenge is the students’ inability to “transfer their grammatical knowledge into communicative language use” (Almekhlafi & Nagaratnam, 2011, p. 78). As foreign language teachers view their primary goal as developing students’ proficiency (Ellis, 1994), explicit instruction is practiced in a broader range.

The situation in Saudi Arabia is not an exception. Rather, it is thornier since several studies acknowledged that students face grammatical difficulties (Almuhammadi, 2020) and their general English proficiency levels are low. This situation can be traced back to the teaching methods as English in Saudi Arabia is “taught as a subject, not as a means of communication” (Sofi, 2015, p. 2), where rote learning and lecturing are primarily used in public schools. This can be acceptable to a limited extent to save class time and to prepare students for further learning. However, when it comes to teaching grammar at the university level, it is anticipated that teachers utilize more advanced teaching techniques that correspond to adult cognitive abilities and result in proper language use. Such methods should be based on the explicit instruction methods that learners were formerly exposed to at their public education stages.

One significant component of explicit instruction is language knowledge. This knowledge can be about the language as an object or as a medium and is believed to affect students’ language proficiency positively. Students need to explicitly know what forms a language contains, how they operate, and what types of relations exist between them. It is suggested that “higher degrees of explicit knowledge should be associated with greater accuracy in language use” (Alderson et al., 1997, p. 97). Knowledge of language forms, however, is not normally available during implicit instruction since the focus is placed more on the communicative activities and meaning rather than on forms and structure. It is believed that “what is good for developing the ability to process language for meaning in context may not be effective in developing an advanced linguistic competence” (Basturkmen et al., 2002, p. 1). Therefore, it can be inferred that implicit instruction sacrifices the knowledge of language forms for the knowledge of language meaning.

Although this claim about the positive relation between metalinguistic knowledge and language proficiency seems logical and intuitive, this relation has not been studied to a significant extent that is proportionate to the heavy debate around the issue. The research gap is more evident when one explores studies of the correlation between metalinguistic knowledge and grammar teaching and learning or accuracy in the Arabic EFL settings. Searching for studies of these types in the most available research databases and repositories returns very few results. Accordingly, this study aims to revisit the issue and explore if direct relation exists between metalinguistic knowledge and students' grammatical accuracy by testing the null hypothesis that there is no significant correlation between students' metalinguistic knowledge and their grammatical accuracy.

## 2. LITERATURE REVIEW

### 2.1 Explicit vs Implicit Grammar Instruction

In the past, "language teaching and grammar teaching were synonymous in most language classrooms" (Nunan, 2003, p. 155). The dominant methods, i.e. Grammar-translation and Audio-lingual methods, were frequently informed by structural linguistics and behavioristic psychology. The primary goal of language teaching was the learners' correct output. Consequently, traditional teaching methods focused more on accurate language production, and teachers tended to correct students' mistakes to achieve habit formation through conditioning (Demirezen, 1988). Doing so was believed to prevent inaccurate linguistic forms, which is considered a bad habit (Bitchener & Ferris, 2012). Using this teaching practice creates the structure-based approach to language teaching. Grammar rules are taught explicitly, "errors are frequently corrected, and accuracy tends to be given priority over meaningful interaction" (Lightbown & Spada, 2013, p. 126).

Since the early eighties of the last century, grammar teaching has become less common as theories regarding second language acquisition claimed that acquisition cannot be fulfilled through conscious learning. According to Krashen (1982), learning cannot become acquisition. In other words, teaching grammatical rules does not guarantee students' successful use of that rule in their spontaneous speech, and hence "there is no necessity for previous conscious knowledge of a rule" (p. 84). Krashen's proposal to win over such a problem is to provide learners with a *comprehensible input* containing a structure that is beyond their current level.

The comprehensible input is suggested to be presented to learners in an *inductive method*. In such a method, a language sample is provided to students so that they can discover the embedded grammatical principles (Nunan, 2003). The language sample is given through different communicative activities because "plentiful exposure to language in use and plenty of opportunities to use it are vitally important for student's development of knowledge and skills" (Harmer, 2007, p. 69). This concept formed the base of CLT, where formal grammatical instruction was rejected and considered unnecessary.

However, it turned out later that CLT does not necessarily develop native-like fluency or communicative competence. This might be because "learners, especially those with low proficiency levels, have limited processing capacities, such that they

cannot easily attend to both meaning and form at the same time” (Basturkmen et al., 2002, p. 1). Furthermore, stressing communicative ability in the target language and emphasizing sociolinguistic approaches affect students' accuracy negatively (Alderson et al., 1997). Accordingly, the suggestions were turned into a hybrid method that incorporates communication and linguistic forms.

The *focus-on-form* method suggests developing accuracy through communicative-based activities. Focus-on-form “involves briefly drawing students' attention to linguistic elements (such as words, collocations, grammatical structures, and pragmatic patterns) in context, as they arise incidentally in lessons whose overriding focus is on meaning, or communication” (Long, 2000, p. 105). Thus, explicit instruction was partially reintroduced in classrooms.

The deterioration of ESL learners' level in grammar and their low level of accuracy in general cause researchers and teachers to return to explicit grammar teaching. Accordingly, “more recently, the consensus seems that some form of grammar is useful” (Nunan, 2003, p. 157). Furthermore, the concept that direct instruction cannot develop acquisition was refuted. Schmidt (2012, p. 29) introduced the noticing hypothesis (1990-2001), suggesting that “learners must attend to and notice linguistic features of the input that they are exposed to if those forms are to become intake for learning”. Otherwise, learners, especially adults, will not develop grammar and morphology through overreliance on implicit learning via interaction only. Accordingly, explicit teaching is practiced on a large scale.

## 2.2 Metalanguage and Metalinguistic Knowledge

Explicit instruction entails using metalanguage (Schleppegrell, 2013). In an explicit instruction session, teachers use what is known as metalanguage. The term metalanguage is a loose term that can include a broad spectrum of indications. However, a general definition that can work for the current study is that it is the language to talk about language (Berry, 2005; Keen, 1997; Munalim, 2015), including any term relating to grammar, morphology, and language skills (Ellis, 2016; Hardman & Bell, 2019; Roshan & Elhami, 2016). Teachers use such terms to explain grammar points anticipating that students will have a more profound comprehension of how language is formed and how meaning is shaped, which will help in improving their language proficiency (Alderson et al., 1997; Hu, 2010). Metalanguage is also used in formal and informal classroom interaction using words like ‘mean’, ‘say’, ‘write’, ‘read’, ‘right’, etc.

The advantages of metalanguage to improve linguistic proficiency have been proven in many previous studies. Hu (2010) reviewed research that investigated this correlation and concluded that there is a “substantial positive correlations between knowledge of metalanguage and L2 proficiency” (p. 63). These advantages are represented in developing knowledge of forms and functions and facilitating grammar instruction. Moreover, using metalanguage can limit grammatical rules to their required contexts and help students avoid making overgeneralization. Metalanguage can also “be used profitably by teachers to help their learners link up newly encountered structures with knowledge of the target system that has already been acquired” (p. 66). In other words, newly taught items can better be explained to students by referring to previously taught concepts. For example, tenses can be better described by showing the forms of verbs and adverbs of frequency.

Metalinguage use is not limited to class time by teachers. It may also “be considered a learning strategy which leads to increased learner autonomy” (Ellis, 2016, p. 143). Students who possess a more expansive knowledge of metalinguage can study the language more effectively as they utilize “tools for parsing language into meaningful constituents and recognizing what goes together to make meaning” (Schlepppegrell, 2013, p. 165). The role of metalinguage here is a “psychological tool to support learners’ cognitive and linguistic development in their L2 learning” (Harun, et al., 2017, p. 1) more than a communicative tool.

The use of metalinguage, however, was not immunized against criticism. “Opponents of metalinguage use in language instruction argue that it is an unnecessary burden on language learners that inhibits communication” (Ellis, 2016, p. 143). Other critics stemmed from its linkage to explicit instruction of grammar (Hu, 2010), which was believed unnecessary in language acquisition and communicative competence development. In general, there is no consensus about the role and benefit of metalinguage for language proficiency and competence. However, it is deemed essential in constituting a broader and more significant concept in language pedagogy literature, i.e. metalinguistic knowledge.

Metalinguistic knowledge is a term related to and usually overlaps with metalinguage. In many previous studies, the term metalinguistic knowledge is used interchangeably with metalinguage, explicit knowledge, and grammar (Chen & Myhill, 2016). However, other researchers have stated that the two terms are slightly different. For them, while metalinguage refers to the hardcoded terms that describe language units and structures, metalinguistic knowledge “denotes the general understanding of language itself, including its metalinguage.” (Ellis, 2016, p. 145). Yet, for all, this knowledge is “grammatically informed,” (Chen & Myhill, 2016, p. 101), though it “is often seen as synonymous with knowledge about language and not knowledge of metalinguage” (Berry, 2005, p. 11).

Metalinguistic knowledge is informed basically by metalinguage. Alderson et al. (1997) stated that “whatever the explicit knowledge looks like, it must include metalinguage, and this metalinguage must include words for grammatical categories and functions” (p. 97). Thus, it can be inferred that “knowledge and use of metalinguage are likely to make the development of an L2 learner’s metalinguistic awareness easier” (Alipour, 2014, p. 2641). Stemming from these claims, the present study adopts the term metalinguistic knowledge to refer to the research participants’ knowledge of the grammatical terms. As metalinguistic knowledge is believed to positively affect language learning (Chen & Myhill, 2016; Ellis, 2016), it is expected that students with a higher level of metalinguistic knowledge are more grammatically accurate users.

### 2.3 Previous Studies

One of the pioneer studies in the relationship between metalinguistic knowledge and language proficiency is the one conducted by Alderson et al. (1997). The researchers tested 509 undergraduate students to investigate whether metalinguistic knowledge, language proficiency, and aptitude correlate. They utilized tests of metalinguistic knowledge, language aptitude and French linguistic proficiency. The results indicated that the relation between metalinguistic knowledge and language proficiency is weak. They also found that level of this metalinguistic knowledge



varied. However, the researchers acknowledged that metalinguistic knowledge is worthwhile in its own right, though limited evidence to support teaching metalinguistic knowledge as a means for student language proficiency was found.

Basturkmen et al. (2002) investigated the correlation between the use of metalanguage and the subsequent use of the taught items in the later student production (the uptake). They studied a collection of 12 hours of recording of classroom interaction, including teachers and learners. The classes followed a CLT method where different communicative activities were conducted. They reviewed focus on form episodes where attention was given to specific linguistic elements. They aimed at identifying the metalanguage used in such episodes and the uptake by the students, either successful or unsuccessful. Their findings revealed an insignificant correlation between metalanguage used and students' uptake in teachers'-initiated focus on form. However, a significant correlation was found between metalanguage used and students' uptake in students'-initiated focus on form. These results suggested that metalanguage is vital for students to start talking about language in the classroom.

Using data from 3-year design-based research in U.S. schools, Schleppegrell (2013) reported the effect of using metalanguage in supporting L2 learners in general curricular activities and developing their L2. The study incorporated nineteen teachers trained to use System Functional Linguistic metalanguage in grade 2 to 5 classes. The students in these classes were non-native English learners. After implementing the project for two years, the results indicated that metalanguage supported language development and helped learners to accomplish complex curricular tasks regarding other disciplines. The researchers reported that the use of metalanguage was beneficial in that it enabled students to generalize what they learned in the language classroom. It also helped them recognize variations and patterns and improve their reading comprehension and writing. They concluded that explicit and focused instruction is helpful for learners' language development.

In another study, Alipour (2014) investigated the relationship between linguistic and metalinguistic knowledge. The researcher operationalized metalinguistic knowledge as the students' ability to describe, correct, and explain L2. Consequently, he administered a metalinguistic test where 40 EFL students were asked to describe, correct, and explain errors in 30 sentences. Later, the students' scores were compared with a cloze open-ended test score designed to measure students' language proficiency. The researcher claimed that both the metalinguistic knowledge and linguistic tests were parallel in terms of tested grammar points to find a meaningful correlation. The results indicated that the participants' metalinguistic knowledge correlates to their linguistic proficiency. However, this metalinguistic knowledge did not entail success in producing general grammatical points. In other words, students can describe, explain, and correct errors in specific grammatical points, but they sometimes fail to produce error-free structures related to other points. This finding suggests that the correlation between metalinguistic knowledge and language proficiency is due to the fact that the same grammatical features are tested across the two tests, which may be a limitation of the followed method.

Tokunaga (2014) administered a metalanguage knowledge test to 1180 EFL learners in Japan and compared the students' scores to their language proficiency tests scores. The results showed a significant correlation between the two scores, especially in more advanced learners. Nevertheless, it was found that students' knowledge of metalanguage is generally poor, especially among low and intermediate students.

Furthermore, the findings of the studies revealed that complete knowledge of metalanguage does not guarantee an equal performance on the proficiency test. It can be inferred from these results that teaching metalanguage in its own right is invaluable. [Roshan and Elhami \(2016\)](#) conducted an experimental study to investigate the impact of metalanguage on grammar noticing in elementary and intermediate students. The researchers used the Oxford placement test to examine their participants' proficiency levels, audio recording to monitor teachers' use of metalanguage, and a noticing task to assess the levels of noticing by the participants after the treatment. The results showed that the experimental group, those who received metalanguage-based instruction, outperformed the control group members in the noticing task creating a significant difference between the students' scores. The findings suggested that metalanguage-based instruction affected low-level students' noticing of grammar points.

Research implied varied insights into the impact of metalinguistic knowledge on learners' proficiency. Most studies acknowledged that it is beneficial for learners; however, studies found disparate correlations levels between metalinguistic knowledge and language performance. The different operationalizations of the term and the broad scope of the dependent variables of the previous studies may cause this weak or low correlation. Since most research recognizes the importance of metalinguistic knowledge for learners, more research is required to investigate this relation. Accordingly, the current study focuses on exploring the correlation between students' metalinguistic knowledge, represented in the knowledge of grammatical terms, with their grammatical accuracy, which is a rarely-investigated correlation. The paper builds on the existing literature by adopting the conceptualization of the terms and the assessment method. Accordingly, metalinguistic knowledge is represented in the knowledge of grammatical terms, while grammatical accuracy is measured through students' judgement of the grammaticality of sentences.

### **3. METHODS**

The present study adopted a descriptive design. Quantitative data was utilized to measure the students' knowledge of metalanguage, their grammatical accuracy, and the correlation between the two variables.

#### **3.1 Participants**

The participants were 124 undergraduate students (65 female and 59 male) in levels 5 (Third year) at Prince Sattam University, Saudi Arabia. The research sample was selected following the cluster sampling method, where a whole unit of the population is selected, and all the members incorporated in the unit are examined ([Dornyei, 2007](#)). Accordingly, two sections of students were chosen from the female and male campuses of the university. The rationale for selecting these specific sections is that they study Applied Linguistics Course (ENGL3170), and hence they have good knowledge about language and grammar teaching. Such a feature was deemed an added value to the participants as their responses would be based on a more profound knowledge of both metalanguage and language forms and structure, hence increasing the data validity. Their English language levels, however, range from intermediate to

upper-intermediate. By the time of conducting the study, they had studied the English language for nine years at public schools and as a major for 1 to 6 semesters at the department of English language, including two grammar courses: Grammar I in semester two and Grammar II in semester three.

## 3.2 Instruments

Two tests were used to gather the research data: a Metalinguistic Knowledge Test and a Grammaticality Judgment Test.

### 3.2.1 Metalinguistic knowledge test

The researcher designed a Metalinguistic Knowledge Test (MKT) to assess the participants' knowledge of metalanguage related to grammar. The MKT is composed of two parts. Part one includes 30 general grammatical terms distributed into six matching questions. Participants were asked to match each term to its equivalent L1 (Arabic). Part two comprises twenty of the same grammatical terms; however, students were asked to match each term to its example. It contains four questions, each of which is composed of five items. In total, the test comprised fifty items, and the ceiling score was set to twenty-five marks. See Appendix A for the detailed test.

To design the MKT, the researcher reviewed documents related to the university's previous courses studied by the students. Course Specifications and Course Reports of three previously learned courses informed the selection of the grammatical terms to be included in the test. The first course (*Grammar I*) is devoted to enlightening students about the eight major parts of speech in English. *Grammar II* course focuses on tenses, verb forms, and the basic structure of English, while the third course (*An Introduction to English Language*) addresses general linguistics aspects related to parts of speech, sentence cases and basic grammatical structures. The test was designed to cover all the mentioned features in the specifications and rule out any grammatical points that are not included in these courses to avoid unexpected results that might occur due to individual differences.

### 3.2.2 Grammaticality judgement test

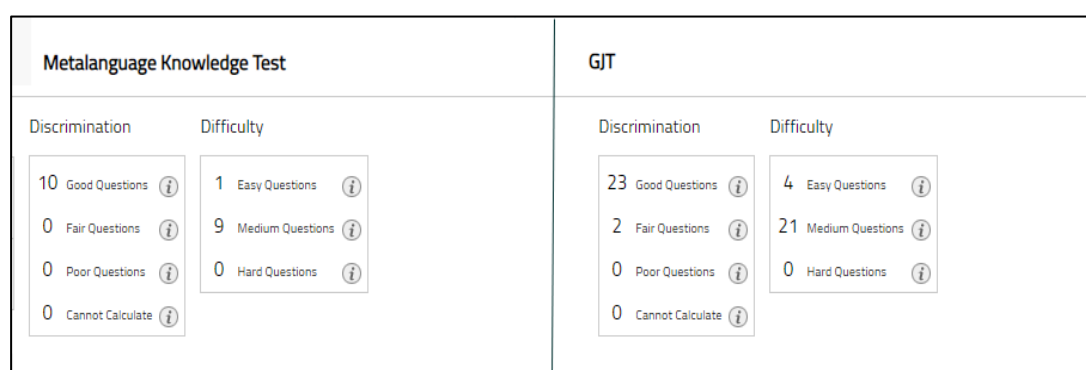
The grammaticality Judgement Test (GJT) is a "standard method of determining whether a construction is well-formed" (Rimmer, 2006, p. 246). GJT has been used since the 1970s to measure learners' language proficiency and knowledge of grammar (Tan & Noor Izzati, 2015). In the present study, a 25-item GJT consisting of two parts was used. In the first part, students were asked to decide on the correctness of twelve items (eight incorrect and four correct). In part two, the participants were required to choose the right words to produce thirteen grammatically-correct sentences. The test covered selected grammatical features: *articles, nouns, pronouns, adjectives, verbs, and adverbs*. The test elements were presented in different cases: affirmative, negative, and interrogative, and the grammatical features were selected to match the points assessed in the MKT. The researcher adopted the GJT questions from Swan and Baker's (2008) Grammar Scan Test. Appendix B shows the GJT.



### 3.2.3 Test reliability

Two university professors specialising in ELT and Applied Linguistics reviewed the tests. Further, a pilot study that incorporated 27 participants was conducted. The participants took the tests twice at a 2-week interval. The coefficient reliability for the MKT scores was 0.69, and it was 0.74 for the GJT. These coefficients suggested a significant correlation between the two administrations of the tests, which implies acceptable reliability.

For the reliability of the data used in this research, the item-analysis tool was used. The item analysis tool is provided by Blackboard, and it provides statistical analyses based on test takers' scores. Figure 1 presents item analysis results for the MKT and the GJT provided by Blackboard.



**Figure 1.** Item analyses of the MKT and GJT.

### 3.2.4 Administration

The two tests were administered through Blackboard Learning Management System. Each test was set to be taken in an hour with a single attempt for each participant. To ensure more security of the tests, they were administered through Respondus Lockdown Browser to ensure that participants would not consult external sources for answering the questions. This precaution was deemed insufficient since students could still access and consult external sources. Accordingly, other blackboard features, such as the random ordering of questions and options and the single attempt feature, were applied to reduce this possibility to the lowest possible extent. Moreover, the number of questions relating to the allocated time was expected to prevent students from attempting to consult other sources, and a countdown timer presenting the remaining time and questions was used to enhance participants' noticing of this characteristic.

## 3.3 Data Analysis

The gathered data were analyzed at two stages. In the first stage, the researcher applied the Blackboard item-analysis tool. According to the Blackboard help manual, the item-analysis tool provides statistical information regarding the questions of an individual test. Therefore, it is considered helpful for the present study as it gives a detailed overview of how the participants responded to each question. Accordingly, it can provide insights into students' knowledge of metalinguistic terms and its

application to the GJT. Item-analysis tool provides statistical information on the following.

- 1) Average score: the average score that respondents achieved on each of the questions.
- 2) Discrimination: it indicates how well a question differentiates between students who mastered a form from those who did not. Its values can range from -1.0 to +1.0 and are calculated using the Pearson Correlation Coefficient. There are three categories of discrimination in terms of their values. The categories are *Good* (greater than 0.3), *Fair* (between 0.1 and 0.3) and *Poor* (less than 0.1). A question is a good discriminator when students who answer the question correctly also do well on the test.
- 3) Difficulty: it indicates the percentage of students who correctly answered the question. Difficulty values can range from 0% to 100%. The higher the percentage is, the easier a question is considered.
- 4) Standard Deviation (SD): this computes the deviation of the scores from the average score. A small standard deviation indicates low variation between the participants' scores.
- 5) Standard Error (SE): this is an estimation of the variability in participant scores that occur due to chance. Smaller standard error of measurement means the measurement provided by the test question is more accurate.
- 6) In the second stage of the data analysis, the researcher computed the Pearson Correlation Coefficient to find the correlation between the overall students' scores at the MKT and the GJT.

#### 4. RESULTS

The study results are presented in three batches. First, item analyses of the tests were presented to check the consistency and quality of the questions. Second, students' scores in the two tests were presented to compare their performance in the MKT and GJT. Finally, the correlation between the students' scores on the two tests was computed.

##### 4.1 Item-Analysis of the Two Tests

The item-analysis results for the MKT test are provided in Table 1.

**Table1.** Item-analysis results of the MKT (sorted by difficulty)

Qid	Q Type	Discrimination	Difficulty	Average	SD	SE
Q10	Examples	0.62	0.36	0.91	0.79	0.14
Q7	Examples	0.55	0.37	0.93	0.95	0.17
Q8	Examples	0.79	0.44	1.10	0.94	0.17
Q9	Examples	0.78	0.47	1.19	0.96	0.17
Q4	L1 Terms	0.71	0.64	1.60	0.84	0.15
Q6	L1 Terms	0.64	0.66	1.66	0.99	0.18
Q3	L1 Terms	0.71	0.71	1.78	0.92	0.17
Q2	L1 Terms	0.72	0.75	1.88	0.92	0.16
Q5	L1 Terms	0.80	0.76	1.91	0.94	0.17
Q1	L1 Terms	0.60	0.82	2.05	0.88	0.16

The results indicate that example questions were more difficult than translation ones; however, the overall difficulty level of the test was convergent. Moreover, the item analysis results revealed that all questions have a ‘good’ discrimination ability as all the discrimination values were above 0.3. This result suggests that the MKT can differentiate between students substantially. The results further exhibited a high homogeneity between the participants’ gains as the low SD values indicate and high accuracy of the measurement represented by the minimal values of SE measurement. In the same vein, the item-analysis results for the second test, i.e. the GJT are presented in Table 2.

**Table 2.** Item-analysis results of the MKT (sorted by difficulty).

Qid	Target	Type	Discrimination	Difficulty	Average	SD	SE
Q10	Article	Either/Or	0.14	0.21	0.21	0.41	0.07
Q15	verb form	Either/Or	0.24	0.23	0.24	0.43	0.07
Q9	verb form	Either/Or	0.04	0.38	0.39	0.5	0.08
Q6	adjectives	Either/Or	0.08	0.41	0.42	0.5	0.08
Q20	Adverbs	MCQ	0.26	0.46	0.47	0.51	0.09
Q22	Adverbs	MCQ	0.35	0.46	0.47	0.51	0.09
Q25	adjectives	MCQ	0.26	0.46	0.47	0.51	0.09
Q23	verb form	MCQ	0.24	0.51	0.52	0.51	0.09
Q7	verb form	Either/Or	0.31	0.54	0.54	0.51	0.09
Q4	Nouns	MCQ	0.23	0.59	0.59	0.50	0.08
Q12	Pronoun	Either/Or	0.33	0.59	0.59	0.50	0.08
Q17	Nouns	Either/Or	0.30	0.62	0.62	0.50	0.08
Q18	adjectives	MCQ	0.45	0.62	0.62	0.50	0.08
Q8	adjectives	Either/Or	0.32	0.64	0.65	0.49	0.08
Q16	Adverbs	Either/Or	0.23	0.64	0.65	0.49	0.08
Q21	Nouns	MCQ	0.18	0.64	0.65	0.49	0.08
Q1	pronouns	MCQ	0.32	0.72	0.72	0.46	0.08
Q24	pronouns	MCQ	0.49	0.72	0.72	0.46	0.08
Q14	Adverbs	Either/Or	0.44	0.77	0.77	0.43	0.07
Q3	Articles	MCQ	0.37	0.79	0.8	0.41	0.07
Q11	Nouns	Either/Or	0.16	0.79	0.8	0.41	0.07
Q13	Pronoun	Either/Or	0.27	0.79	0.8	0.41	0.07
Q19	Articles	MCQ	0.29	0.79	0.8	0.41	0.07
Q5	Articles	Either/Or	0.21	0.82	0.83	0.39	0.07
Q2	Nouns	MCQ	0.27	0.85	0.85	0.37	0.06

The results show no consistency in the problematic grammatical items tested. However, questions related to verb forms can be considered the most difficult ones. All the questions on this feature have difficulty values ranging between 0.24 and 0.54. The same can be stated about ‘adjectives’ whose difficulty values range between 0.41 and 0.64. Other grammatical points difficulty values varied greatly. Among the twenty-five questions, twenty-three were considered ‘good’ questions regarding their discrimination ability, while the remaining two were deemed to be ‘fair’. The test results of the GJT were also tightly grouped around the average and accurate, as implied by the noticeable low values of SD and SE.

## 4.2 Overall Scores

As for the participants’ overall scores, Table 3 reports the two tests’ descriptive statistics.

**Table 3.** Descriptive statistics of the participants' scores on the two tests.

	<b>MKT</b>	<b>GJT</b>
Mean	19.05	16.16
Std. Error of Mean	0.33	0.37
Std. Deviation	3.71	4.08

The results show that students' performance at the MKT was higher than their performance at the GJT. They also demonstrate high measurement accuracy as represented by the low standard error of means. It can further be inferred that most of the scores are clustered around the average score suggesting homogeneity of the participants' performance.

To test the central hypothesis of the research, Pearson correlation was computed to assess the relationship between students' scores at the MKT and the GJT. The results are reported in Table 4.

**Table 4.** Pearson Coefficient of the MKT and the GJT.

		<b>GJT</b>	<b>MKT</b>
GJT	Pearson Correlation	1	0.436**
	Sig. (2-tailed)		0.000
	N	124	124

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

From the results above, it was found that there was a positive correlation between the two variables,  $r(122) = 0.44$ ,  $p < 0.01$ . This result suggests that the null hypothesis is rejected, and it can be inferred that there is a significant correlation between students' metalinguistic knowledge and their grammatical accuracy.

## 5. DISCUSSION

The present study investigated the correlation between students' metalinguistic knowledge and their grammatical accuracy. Metalinguistic knowledge was operationalized as students' comprehension of basic grammatical terms pertaining to word classes and forms. The research participants took two tests: MKT to test their metalinguistic knowledge and GJT to measure their grammatical accuracy. The results were generated by analyzing the two tests' discrimination, difficulty, standard deviation, and standard error values. Moreover, the Pearson correlation coefficient between the participants' scores on the two tests was computed to test the correlation between students' metalinguistic knowledge and grammatical accuracy.

The study's findings demonstrate different performances at the MKT and the GJT. Students' scores at the MKT were higher than their scores at the GJT. Though the difference was modest, i.e. around 12%, it indicates that the participants' knowledge of the grammatical term exceeded their ability to apply their knowledge to the actual use of language. This result implies that the students' knowledge of grammatical terms was not applied completely in producing well-formed grammatical structures though it may be a critical factor. In other words, students could comprehensively understand metalanguage as independent units, but when it come to

uptake or implementing this knowledge on real language production, specific aspects of their knowledge were not implemented.

This result supports evidence found by previous research (e.g. [Basturkmen et al., 2002](#)), which found an insignificant correlation between metalanguage used and students' uptake in teachers'-initiated focus on form. It also supports the findings of [Alipour \(2014\)](#), which suggested that the students' metalinguistic knowledge did not entail success in producing general grammatical points. Though this result is not novel and supports previous literature, it should be considered cautiously. The reason for this is that it may be due to the type of questions used in the metalinguistic test, especially the L1-equivalent matching questions. Even though this type of question can provide insight into students' knowledge of the grammatical terms, simply translating the term to Arabic does not mean understanding the linguistic and semantic properties of the words represented by the term. However, these questions were suitable per se as they were used to test students' current state of metalinguistic knowledge not the application of this knowledge or the uptake.

The study also revealed that the student's knowledge of metalanguage was invariable, and their grammatical accuracy was to a considerable extent consistent. This result meets the expectation as the students were homogenous in terms of their education levels and linguistic experience. However, the finding contradicts some previous studies, e.g. [Alderson et al. \(1997\)](#), that found significantly varying levels of metalinguistic knowledge among students. The research sample size might be a reasonable interpretation of this finding as [Alderson et al. \(1997\)](#) conducted their study on a larger sample ( $n = 509$ ), which might cause more significant variation between the participants.

The most significant finding of this study is that there was a significant positive correlation between students' metalinguistic knowledge and their grammatical accuracy. These results fit with the common belief that explicit grammatical instruction involving a clear explanation of terms would help develop students' grammatical accuracy. In this vein, researchers provided various justifications, such as providing more effective ways for learning the language ([Schleppegrell, 2013](#)), developing learner autonomy ([Ellis, 2016](#)), and supporting learners' cognitive development ([Harun et al., 2017](#)).

Many previous studies also yielded similar results, e.g. [Schleppegrell \(2013\)](#), [Alipour \(2014\)](#), and [Roshan and Elhami \(2016\)](#). However, other studies found no or weak correlation between metalinguistic knowledge and grammatical accuracy, (e.g. [Alderson et al., 1997](#); [Basturkmen et al., 2002](#)), while other researchers claim that metalanguage can further be a burden on students ([Ellis, 2016](#)) and is less useful for language learning ([Hu, 2010](#)). However, even the studies that found no correlation between metalanguage use and grammatical proficiency recognized the valuable role of metalanguage in fostering learning grammar. The value assumed is represented in language accuracy rather than proficiency ([Steel & Alderson, 1994](#)) and metalanguage is believed effective for organizing learning grammar and developing learners' autonomy ([Ellis, 2016](#)).

The correlation between metalinguistic knowledge and grammar accuracy is represented clearly in the students' performance on some grammatical points. For example, 'verb forms' were one of the problematic features to be identified correctly in the GJT. Similarly, most students failed to answer MKT questions related to 'infinitive, gerund, and past participle'. Notwithstanding, most cases, e.g. articles,



singular and plural forms, and possessive case, do not show a significant relationship between the participant's performance in the two tests. This can be adopted to justify the medium correlation between MKT and GJT scores since the value of 0.44 does not imply a strong correlation. In other words, this correlation can only be yielded when computing the correlation between the overall scores. When comparing students' performance on the grammatical terms and their work on the relevant GJT tests, the correlation is not noticed clearly as the participants' scores on some grammatical points were low while their scores at the related points in the MKT were high and vice versa. Consequently, the limitations of this study should be taken into account. These limitations are represented in the sample size and lack of diversity. Results of students' performance regarding each metalanguage point can be obtained by matching difficulty values scores from Table 1 with the corresponding question as displayed in Appendix A. Further, the results of the corresponding grammatical points are displayed in Table 2.

The results of this study imply the significance of metalanguage in improving the grammatical accuracy of EFL learners. However, this knowledge should be considered an assistant factor in developing learners' grammar. This is mainly implied by the fact that students' performance at the MKT was higher than their work on the GJT. Furthermore, while a positive correlation was found between the students' performance on the two tests, this correlation was only moderate.

## **6. CONCLUSION**

The use of metalanguage in teaching is the core point investigated in this research. This issue has been discussed in a wide range for decades. However, no equal research interest was provided to it. Therefore, the researcher aimed at revisiting the issue and measured the EFL learners' knowledge of metalanguage and its relationship to their grammatical accuracy. Utilizing an MKT and a GJT, the researcher collected quantitative data and analyzed them through the Blackboard item-analysis tool and SPSS software.

The study results revealed that students' knowledge of metalanguage was high. However, it is not reflected in an equal linguistic performance by the participants. Still, a significant correlation between metalinguistic knowledge and grammatical accuracy was spotted. The correlation was moderate and could be realized at the overall score level. The results imply that despite implementing different teaching methods that focus on communication and socio-cultural aspects, the importance of explicit grammatical teaching is undeniable. It further necessitates introducing students to metalanguage to inform their grammar learning. However, it should be acknowledged that the knowledge of metalanguage does not necessarily mean development in all grammatical features and aspects. Accordingly, elaborated teaching strategies that guarantee the application of such knowledge to the actual language use should be developed and implemented. This can be achieved by continuously applying grammatical concepts to authentic sentence production, explaining rules based on the linguistic components, and introducing terms for sentence forms and structure.

Future research should utilize a larger sample to eliminate possible limitations that might be present in the current study. These studies should also be conducted on a longitudinal basis with frequent checkpoints to investigate the effect of

metalinguage-based teaching strategies on language teaching. Moreover, experimental research is more suitable for measuring metalinguage's impact on grammatical performance, especially when control groups are used. A suggested area for future research would be investigating what features of grammar can benefit from the knowledge of metalinguage and what cannot. In other words, research that answers the question of what areas of grammar would metalinguage develop and in what ways.

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## APPENDIX A.

### Metalinguistic Knowledge Test

Metalinguistic Knowledge Test							
SheetID: .....							
<b>P1: Match each term to its Arabic meaning</b>							
Q1	Term	Arabic Term	Arabic	Q2	English	Arabic	Arabic
1	Spelling		قواعد نحو	1	Affirmative		ملكبة
2	Present		تهجئة	2	Negative		نفي
3	Grammar		حاضر	3	interrogative		إثبات
4	Future		ماضي	4	Phrase		الاستفهام
5	Past		مستقبل	5	Statement		عبارة
Q3	Term	Arabic Term	Arabic	Q4	Term	Arabic	Arabic
1	Subject		مفرد	1	Word		حرف
2	Object		جمع	2	Morpheme		وحدة صرفية
3	Singular		فاعل	3	Sentence		كلمة
4	Plural		مفعول به	4	Letter		شبه جملة
5	Phrase		عبارة	5	Clause		جملة
Q5	Term	Arabic Term	Arabic	Q6	Term	Arabic	Arabic
1	Pronoun		أداة نكرة	1	Modal verb		صفة
2	Main verb		اسم	2	Preposition		حرف عطف
3	Adverb		ضمير	3	Adjective		فعل شرطي
4	Noun		فعل تام	4	Auxiliary verb		فعل مساعد
5	Indefinite article		ظرف / حال	5	Conjunction		حرف جر
<b>P2: Match Each Term to its example</b>							
Q7	Term	Example	Examples	Q8	Term	Example	Examples
1	Past verb		to teach	1	Singular noun		dictionary
2	Gerund		teaching	2	Plural noun		children
3	Infinitive		who	3	Subject pronoun		we
4	Past participle		went	4	Object pronoun		us
5	Relative pronoun		spoken	5	Possessive adjective		our
Q9	Term	Example	Examples	Q10	Term	Example	Examples
1	Adjective		an	1	Modal verb		must
2	Adverb		well	2	conjunction		have
3	Indefinite article		good	3	Interjection		but
4	Preposition		with	4	Main verb		Oops!
5	Definite article		the	5	Auxiliary verb		help

## Appendix B

### Grammaticality Judgement Test

**Part A. Decide if each of the following sentences is correct [C] or incorrect [IC].**

1. Don't through out of the window empty cups. [.....]
2. My brother is three year old than me. [.....]
3. A cat is said to have 9 lifes. [.....]
4. I live in Kingdom of Saudi Arabia. [.....]
5. I burnt me in the hot pan. [.....]
6. I rung the bell six times. [.....]
7. She has been working there until long time. [.....]
8. I did a lot of homework last night. [.....]
9. He called his family on Friday. [.....]
10. The sun rises in the east and set in the west. [.....]
11. Everyone are dreaming of better future. [.....]
12. She is very beautiful than her sister. [.....]
13. He badly needs to pass the exam. [.....]

**Part B: Choose the word that makes the sentence correct.**

1. Who said that? (she did – her did)
2. I have some important (information – informations) for you.
3. I met (a – an) woman who told me that you were here.
4. Fahd's (was – been) living here for 3 years.
5. He played very (good – well) last night.
6. A *milk chocolate* is ..... (a kind of milk / a kind of chocolate.)
7. She is a great (actor – actress).
8. Both children have ..... (their own – themselves) rooms.
9. She likes biology, she will be (a – the) doctor.
10. Stop (talk – talking) and listen to me.
11. I think that fish you caught is still (live – alive).
12. I love McDonalds! I (especially like – like especially) cheeseburger