

The Relationship between Intermediate EFL Learners' Writing Performance and their Lexical and Grammatical Knowledge

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Abstract

This study examines the relationship between intermediate EFL learners' writing performance and their lexical and grammatical knowledge. While previous research has explored the individual effects of vocabulary and grammar on writing, few studies have investigated their combined influence. This study seeks to determine whether grammatical or lexical knowledge plays a more significant role in predicting writing performance. A sample of 100 Iranian intermediate EFL learners was selected based on their scores on the Cambridge Placement Test. Participants completed grammar and vocabulary assessments, followed by a writing task evaluated by two independent raters. Pearson correlation and regression analyses were conducted to measure the relationships among the variables. The findings revealed a significant correlation between both grammatical and lexical knowledge with writing performance, with lexical knowledge displaying a slightly stronger predictive value. This suggests that while grammar is essential for structuring coherent sentences, lexical knowledge is more influential in determining the overall quality of writing. The study supports previous research emphasizing the importance of vocabulary in second language acquisition, highlighting its role in enhancing learners' writing proficiency. These findings have pedagogical implications for EFL instruction, suggesting that language teachers should place a balanced emphasis on both vocabulary acquisition and grammar instruction. Providing learners with extensive exposure to academic vocabulary, along with opportunities for contextualized grammar practice, may improve their writing proficiency. Future research could explore additional variables, such as cognitive factors or writing strategies, that may contribute to EFL learners' writing development.

Keywords: *EFL Learners; Grammatical Knowledge; Lexical Knowledge; Second Language Acquisition (SLA); Writing Performance.*

1. INTRODUCTION

Grammatical knowledge seems to play a very important role in writing performances. It seems those individuals benefitting from a very high mastery over grammar receive better scores in their writing performances. "Grammar is a description of the structure of a language and the way in which linguistic units such as words and phrases are combined to produce sentences in the language" (Richards et al., 1992, p. 161).

Grammar is thought to provide the basis for a set of language skills. In the context of writing, grammar allows learners to put their ideas into coherent sentences so that they can successfully communicate in a written form. In other words, by learning grammar, learners can transfer meanings in the form of phrases, clauses and sentences (Doff, 2000).

Mochida (2002) states that the ‘grammatical knowledge’ is the overall ability to apply the second language based on some points: appropriateness, meaningfulness, accuracy, and fluency. Mochida also described the dual characteristics of grammar knowledge as follows: ‘Declarative grammatical knowledge (explicit knowledge)’ is the knowledge about grammar rules, and ‘Procedural grammatical knowledge (implicit knowledge)’, on the other hand, is the knowledge about how to use grammar rules properly, meaningfully and automatically.

Lexical knowledge is a term used for knowledge in form of vocabulary which covers information that generally has been confirmed and published by scientific and academic sources. The main and central point of second language acquisition (SLA) is lexical knowledge, the vocabulary of which is its fundamental structure.

It is often regarded as the major need and source of defects by language learners (Segler et al, 2002). Gass (1988) emphasizes and confirms the significance of lexical knowledge in such a way that grammatical errors lead to understandable meaning, but the errors in vocabulary and lexical knowledge disrupt the meaning of context and stop communication.

Ur (1996) notes that writing is used as a means of noting down the new vocabularies; copying the grammar structures; writing out answers etc. Henriksen (1996) believes that vocabulary knowledge is the proficiency to translate the lexical items into the L1, the ability to find the right meaning in a multiple-choice task, or the ability to paraphrase the words in the target language. Nation (2001) identifies vocabulary knowledge as two forms: “Receptive vocabulary use involves perceiving the form of a word while listening or reading and retrieving its meaning. Productive vocabulary use involves wanting to express a meaning through speaking or writing and retrieving and producing the appropriate spoken or written word form” (pp. 24-25).

According to Nik, Hamzah, & Rafidee (2010), Language is the most powerful tool and is used to communicate with people through different language skills. However, the ability to write can be learned and it is not acquired naturally. Writing is also one of the major means by which students demonstrate their knowledge, and it provides a powerful mechanism for communication, self-expression, and self-reflection (Graham, 2006).

Most linguists such as Wardhaugh (2006) agree that the language knowledge is the literacy that speakers have of the language or languages and this knowledge explains how we can understand ‘grammatical’ sentences and distinguish ‘ungrammatical’ ones. Language knowledge comprised of linguistic knowledge, such as the knowledge of grammar, vocabulary and orthography.

Writing is a complex process that needs much effort to be completed, according to Myles (2002), writing is the skill that requires learning and practicing. Also, Reid (1993) and Langan (1987) note that writing is a craft skill which can be taught and learned.

The effective role of vocabulary in ESL writing and learning a second language is well recognized. Laufer and Nation (1995) found that a learners’ academic vocabulary size can be reflected in the person’s productive use of the language such as writing.

They suggest that learners' academic lexical richness can contribute to higher ratings of their academic written texts. In addition, Roche and Harrington (2013) examined recognition vocabulary knowledge as a predictor of written Academic English Proficiency (AEP) and Academic Achievement in an EFL program. These results revealed that vocabulary knowledge has been known as a prerequisite for academic achievement in English programs (Hsueh-Chao & Nation, 2000; Waring & Nation, 2004).

Tajzadeh, Khodabandehlou and Jahandar (2013) examined the relationship between grammar instruction and the improvement of writing ability on Iranian EFL learners. Their findings indicated that the group received grammar instruction outperformed in writing tasks. Also, it was stated that it is necessary to learn grammatical rules in order to communicate in a written form in the 2nd language. In the same vein, Laurinen (1955) in a study investigated the effect of grammar teaching on writing that the reports suggest that some features of grammar teaching have positive effects on writing.

The importance of vocabulary and grammar on the quality of writing has been expressed by a few researchers. Zhou (2009) investigated the goals of ESL Canadian learners for improving grammar and vocabulary in their writing in order to understand their motivations and strategies for improvement. The results showed that they were found to be motivated to improve grammar and vocabulary and mechanics in their writing tasks, but the lack of knowledge and resources prevent them from improving their writing. The study also suggested that teachers could help learners identify their origins of errors in grammar and select appropriate lexical items in writing.

The previous studies were all focused on the effect of vocabulary knowledge or grammatical knowledge on learners' writing performances. However, few studies ever concentrated on the interactional effect of both vocabulary and grammatical knowledge on writing performances. Thus this study seeks to figure out the relationship between the intermediate EFL learners' writing performances and the interaction of both their lexical and grammatical knowledge in order to discover which one can better predict their writing performances.

This study has three main purposes. The first purpose of this study is to investigate the relationship between Iranian intermediate EFL learners' grammatical knowledge and their writing performances. The second purpose of this study is to explore if there is any significant relationship between intermediate EFL learners' writing performances and their lexical knowledge. The third purpose is to probe into the interactional effect of both learners' lexical knowledge and their grammatical knowledge on writing performances to investigate if these two variables combine, will they improve their writing performances?

The following research questions were composed:

- 1) Is there any significant relationship between intermediate EFL learner's grammatical knowledge and their writing performances?
- 2) Is there any significant relationship between intermediate EFL learners' lexical knowledge and their writing performances?
- 3) Is there any significant relationship between intermediate EFL learners' writing performances and the interactional effect of their grammatical knowledge and lexical knowledge?

The following hypotheses were made based on the research questions:

- H01) There is no significant relationship between intermediate EFL learner's grammatical knowledge and their writing performances.
- H02) There is no significant relationship between intermediate EFL learners' lexical knowledge and their writing performances.
- H03) There is no significant relationship between intermediate EFL learners' writing performances and the interactional effect of their grammatical knowledge and lexical knowledge.

2. REVIEW OF LITERATURE

Grammar knowledge has a significant impact on inferencing. The role of grammar in L2 learning and processing has been well acknowledged (Haastrup, 1991; Kelly, 1990; Paribakht, 2004; Paribakht & Weshe, 1999). However, as Paribakht (2005) mentions, "it is far from clear how grammatical knowledge can assist learners in their L2 lexical processing and subsequent vocabulary acquisition" (p. 149). There are only few studies indicating that grammar knowledge is involved in L2 lexical processing (e.g., Paribakht, 2005; Paribakht & Weshe, 1999).

Concurring the view that grammar knowledge influences inferencing, Haastrup (1991) notes that "lexical inferencing involves making informed guesses as to the meaning of a word in light of all available linguistic cues in combination with the learners' general knowledge of the world, her awareness of the context and her relevant linguistic knowledge" (p. 40).

The lexis is an essential contributor whose role in FLA and SLA has been continuously admitted (Hunt & Beglar 2005; Lewis 2000; Wilkins 1972; Zimmerman 1997). In learning English language, vocabulary and lexical knowledge is acknowledged as a significant contributor to ESL or EFL improvement (Coxhead, 2006; Horst, Cobb, & Nicolae, 2005; Lee & Munice, 2006). That is, "L2 learners' lexical knowledge may determine the quality of their listening, speaking, reading, and writing performances" (Mokhtar, 2010: 72).

3. METHODS

The participants were 100 EFL students (male and female) at Islamic Azad University of Zanjan and were selected on the basis of convenience sampling. Having been homogenized via a proficiency test (Cambridge Placement Test, 2010), those with Intermediate level were selected. Their age ranged between 20 and 40. In the following section, the instruments used in this research including the proficiency test, grammatical knowledge test, and lexical knowledge test are dealt with. In order to guarantee the homogeneity of the subjects of this study and to fulfill the objectives of the study; first, a Cambridge placement test (2010) by Cambridge University Press was distributed among all the 100 students to determine their level of proficiency. The aim was to select those students with the intermediate level of proficiency.

The grammar test was adapted from NTC's Practice Tests for the TOEFL (2000). This test measures the learners' ability to recognize language that is appropriate for standard written English. Learners' knowledge of English structures and grammar, use, word order, and sentence structure were all tested. This test includes 40 questions and is comprised of two sections: incomplete sentences and incorrect words and phrases. 25 minutes were dedicated to this test. The vocabulary test was adapted from NTC's Practice Tests for the TOEFL (2000).

This test includes 30 multiple-choice questions. This test measures learners' ability to understand the meaning and use of words. Learners had 20 minutes to answer all these questions. Prior to administering the vocabulary and grammar test to the sample, the researcher of this study piloted both tests to examine their internal consistency. In so doing, the researcher gave the test to 30 intermediate students. This was an ex-post – facto designed study, since there were two independent variables (lexical knowledge & grammatical knowledge) and one dependent one (writing performance). To obtain reasonable answers to the research questions mentioned earlier, the following steps were taken:

First, a Cambridge placement test was distributed among EFL students of Islamic Azad University of Zanjan to determine the homogeneity of the participants and select the intermediate language learners. Total score was 120. Those students who could respond to 60 to 80 questions out of 120, were considered as intermediate.

Then the structure section as well as the vocabulary section of NTC's TOEFL PBT tests were administered to the selected intermediate learners. Learners were given 45 minutes to answer all the questions. Afterwards, all the selected students were later asked to sit for a writing test. Two common and controversial topics were given so that the learners would have the choice to choose either. Having collected all the essays, the researcher asked two EFL experts to score the essays on the basis of the scale given. The average of the scores given to the essays by the two raters accounted for the learners' writing performance.

4. DATA ANALYSIS

Research Question one

- 1) Is there any significant relationship between intermediate EFL students' lexical knowledge and their writing performance?

A Pearson correlation was run to probe any significant relationship between Intermediate EFL students' lexical knowledge and their writing performance. Based on the results displayed in Table 2 ($r(98) = .75$, $P < .05$ representing a large effect size) it can be concluded that there was a significant correlation between lexical knowledge and writing performance. Thus, the first null-hypothesis **was rejected**.

Table 1: Pearson Correlation; lexical knowledge and writing performance

Lexical knowledge	writing performance	
	Pearson Correlation	.754**
	Sig. (2-tailed)	.003
	N	100

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

Research Question two

2. Is there any significant relationship between intermediate EFL students' grammatical knowledge and their writing performance?

A Pearson correlation was run to probe any significant relationship between Intermediate EFL students' grammatical knowledge and their writing performance. Based on the results displayed in Table 3 ($r(98) = .718$, $P < .05$ representing a large effect size) it can be concluded that there was a significant and large correlation between grammatical knowledge and writing performance. Thus the second null-hypothesis **was rejected**.

Table 2: Pearson Correlation; grammatical knowledge and writing performance

		Writing performance
grammatical knowledge	Pearson Correlation	.718**
	Sig. (2-tailed)	.005
	N	35

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

Research Question 3

3. Which one of the two variables of grammatical knowledge and lexical knowledge can better predict the writing Performance of the learners?

In order to respond to this question, a regression analysis was run:

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.401 ^a	.161	.140	.47930

a. Predictors: (Constant), Grammatical knowledge, Lexical Knowledge

As can be seen, the multiple correlation coefficient between writing performance and grammatical as well as lexical knowledge is 0.401 and the squared coefficient (R^2) is 0.161, meaning around 16 percent of the dependent variable could be predicted by the two variables of lexical and grammatical knowledge. A one-way ANOVA results ($F(2, 97) = 7.841$, $P < .05$, $\omega^2 = .3.60$) indicated that at least either of the independent variable can predict the dependent variable. Thus, each and every one of the independent variable should be analyzed via T-test.

Table 4: One way ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.603	2	1.801	7.841	.001 ^b
	Residual	18.838	82	.230		
	Total	22.441	84			

a. Dependent Variable: Writing

b. Predictors: (Constant), grammatical knowledge, lexical knowledge

A regression analysis was also run to predict the effect of independent variables on dependent variable.

Table 5: Regression Analysis

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.834	.526		1.585	.117
	grammatical knowledge	-.001	.007	-.029	-.183	.855
	Lexical knowledge	.013	.005	.423	2.633	.010

a. Dependent Variable: Writing

As it is crystal clear, and with regards to the significance values ($P < 0.05$) of lexical knowledge, it can be understood that out of the two variables of lexical knowledge and grammatical knowledge, lexical knowledge can better predict writing performance of the learners.

5. DISCUSSION AND CONCLUSIONS

This study proved the findings of Coxhead (2006), Horst, Cobb, & Nicolae (2005), Lee and Munice (2006), and Mokhtar (2010) that in learning English language, vocabulary and lexical knowledge is acknowledged as a significant contributor to ESL or EFL improvement. In other words, L2 learners' lexical knowledge may determine the quality of their listening, speaking, reading, and writing performances.

This study was in line with the findings of Coxhead (2006), Horst, Cobb, & Nicolae (2005) and Lee and Munice (2006) that in learning English language, vocabulary and lexical knowledge is acknowledged as a significant contributor to ESL or EFL improvement. In addition, according to Mokhtar (2010), L2 learners' lexical knowledge may determine the quality of their listening, speaking, reading, and writing performances.

This research was also consistent with the findings of De la Fuente (2002), Ellis (1995), Ellis, Tanaka, and Yamakazi (1994) that lexical proficiency is also crucial because the understanding of lexical acquisition in relation to its deeper, cognitive functions can lead to increased awareness of how learners process and produce an L2.

Grammar is thought to provide the basis for a set of language skills. In the context of writing, grammar allows learners to put their ideas into coherent sentences so that they can successfully communicate in a written form. In other words, by learning grammar, learners can transfer meanings in the form of phrases, clauses and sentences (Doff, 2000). Mochida (2002) states that the 'grammatical knowledge' is the overall ability to apply the second language based on some points: appropriateness, meaningfulness, accuracy, and fluency.

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As Richards (2002) puts, vocabulary is of vital importance and a key part of language proficiency serving as a building block for learners' speaking, listening, reading, and writing skills. Therefore, students who encounter problems when they write in a second language do not have enough vocabulary knowledge (Raims, 1985).

This study was in line with Doff (2000) and Mochida (2002) findings that in the context of writing, grammar allows learners to put their ideas into coherent sentences so that they can successfully communicate in a written form. In other words, by learning grammar, learners can transfer meanings in the form of phrases, clauses and sentences.

This study also advocated Shaughnessy (1977) conclusions that grammatical concepts should be emphasized and teachers should encourage students to examine grammatical errors in their own writing.

This study concluded that there was a significant relationship between intermediate EFL learners' grammatical knowledge and their writing performance. Moreover, this study also came to this conclusion that there was a significant relationship between intermediate EFL learners' lexical knowledge and their writing performances. Last but not least, it was concluded that grammatical knowledge could better predict EFL learners' writing performances.

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