

# On the Effectiveness of Scaffolding Strategies and Task orientation on Receptive and Productive Knowledge of Lexical Collocations<sup>1</sup>

La Eficacia de las Estrategias de Andamiaje y la Orientación de Tareas sobre el Conocimiento Receptivo y Productivo de las Colocaciones Léxicas

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## Abstract

The present study aimed at investigating the effects of scaffolding strategies using input and output-oriented tasks on Iranian EFL learners' receptive and productive knowledge of lexical collocations. For this purpose, 540 adult intermediate-level EFL learners- both male and female- were selected and divided into six experimental groups; three input-oriented and three output-oriented tasks. Each experimental group received treatment under one of the three scaffolding strategies of direct corrective feedback, cooperative group technique, and visual cues. After the treatment period, a 40-item multiple-choice test and a 40-item fill-in-the-blanks test were administered to assess the participants' receptive and productive collocations knowledge. To analyze the data, two separate two-way ANOVA procedures were used. The results indicated that visual cues were the most effective scaffolding strategy in teaching lexical collocations. Moreover, the cooperative group technique had a significant positive impact on learning collocations compared to direct corrective feedback. The results also showed that the participants in the output-oriented tasks group significantly outperformed those in the input-oriented tasks group. These findings can have practical implications for language learners, teachers, and materials developers, and theoretical implications for researchers.

Keywords: Collocations; Cooperative group; Scaffolding Strategies; Task Orientation; Visual Cues.

## Resumen

El presente estudio tuvo como objetivo investigar los efectos de las estrategias de andamiaje que utilizan tareas orientadas a insumos y resultados en el conocimiento receptivo y productivo de las colocaciones léxicas de los estudiantes iraníes de inglés como lengua extranjera. Para este propósito, 540 aprendices adultos en nivel intermedio, tanto hombres como mujeres fueron seleccionados y divididos en seis grupos experimentales; tres en la categoría de insumos y tres en la categoría de resultados. Cada grupo experimental recibió un tratamiento bajo una de tres estrategias de andamiaje, tales como: retroalimentación directa correctiva, técnica grupal cooperativa y señales visuales. Después del periodo de tratamiento, se administró una prueba de 40 preguntas de múltiple respuesta y una prueba de 40 preguntas de llenar espacios para evaluar el conocimiento de las colocaciones receptivas y productivas de los participantes. Para analizar los datos, se utilizaron dos procedimientos ANOVA bidireccionales separados. Los resultados indicaron que las señales visuales fueron la estrategia más efectiva en la enseñanza de colocaciones léxicas. Además, la técnica de cooperación grupal tuvo un impacto significativo en el aprendizaje de colocaciones comparado con la retroalimentación directa correctiva. Los resultados también mostraron que los participantes en el grupo de tareas orientadas a resultados superaron significativamente a los del grupo de tareas orientadas a insumos. Estos hallazgos pueden tener implicaciones prácticas para los aprendices de lengua, docentes, desarrolladores de materiales e implicaciones teóricas para los investigadores.

Palabras clave: colocaciones; grupo cooperativos; estrategias de andamiaje; orientación a tareas; ayudas visuales; aprendizaje de inglés

## Resumo

O presente estudo teve como objetivo investigar os efeitos das estratégias de estrutura que utilizam tarefas orientadas a insumos e resultados no conhecimento receptivo e produtivo das colocações léxicas dos estudantes iranianos de inglês como língua estrangeira. Para este propósito, 540 aprendizes adultos em nível intermédio, tanto homens como mulheres foram selecionados e divididos em seis grupos experimentais; três na categoria de insumos e três na categoria de resultados. Cada grupo experimental recebeu um tratamento sob uma das três estratégias de estrutura, tais como: retroalimentação direta corretiva, técnica grupal cooperativa e sinais visuais. Depois do período de tratamento, administrou-se uma prova de 40 perguntas de múltipla resposta e uma prova de 40 perguntas de preencher espaços para avaliar o conhecimento das colocações receptivas e produtivas dos participantes. Para analisar os dados, foram utilizados dois procedimentos ANOVA bidirecionais separados. Os resultados indicaram que os sinais visuais foram a estratégia mais efetiva no ensino de colocações léxicas. Além disso, a técnica de cooperação grupal teve um impacto significativo no aprendizado de colocações comparado com a retroalimentação direta corretiva. Os resultados também mostraram que os participantes no grupo de tarefas orientadas a resultados superaram significativamente aos do grupo de tarefas orientadas a insumos. Estas descobertas podem ter implicações práticas da língua, professores, desenvolvedores de materiais e implicações teóricas para os investigadores.

Palavras chave: colocações; grupo cooperativos; estratégias de estrutura; orientação a tarefas; ajudas visuais; aprendizado de inglês

## Introduction

Learning a second language relies, to a large extent, on vocabulary knowledge (Schmitt, 2000). Lexical knowledge plays a vital role in communicative competence and the acquisition of a second language (Nation, 2011; Hoshino, 2010). Vocabulary consists of individual words like nouns and verbs and word combinations like collocations and idioms. Collocations are of paramount significance in language competence. Learning words in chunks is a central part of acquiring a creative language system, which is the key to fluency. Moreover, an equally important discussion that provides support to the instruction of collocations, as Nattinger (1988) notes, is that students do not need to reconstruct language each time they want to use it; instead, they can use these collocations as prepackaged elements to convey their message. Concerning lexical collocations as one main category of collocations, Hill (2000) argues that multi-word structures are components of fluent linguistic production and critical language learning factors. Therefore, it seems necessary to learn lexical collocations since learners frequently come across them not only in writing but also in spoken language.

Despite the indubitable significance of collocations, researchers have argued that collocations are among the problematic aspects of vocabulary learning for foreign language learners (Hüttner, 2005). For optimal knowledge of L2 collocations, some scholars (Krashen, 1985; Swain, 2000) highlight the role of task orientation (e.g., input or output-oriented tasks). In input-oriented tasks, learners use clues from the text or the situational context to guess the meaning of a word or a lexical combination. It is, therefore, this combination of contextual clues and linguistic processing that makes learners able to assign meaning to specific words and grammatical features and so acquire them (Krashen, 1985). In output-oriented tasks, however, as Swain (2000) points out, L2 production aids learners to notice a gap in their language knowledge, correct their errors concerning the feedback they receive, and reflect upon their output to internalize linguistic competence.

On the other hand, Vacca (2008) opines that learners can perform any task, simple or complex, well only if they receive relevant, necessary assistance. As far as vocabulary learning is at stake, effective scaffolding techniques can reduce learners' confusion and frustration via providing clear direction and step-by-step instruction for learners (Poorahmadi, 2009). The selection of practical tasks, on the one hand, and the use of efficient strategies to optimize L2 collocations learning, on the other hand, have long been the concern of the stakeholders. Therefore, it is crucial to explore what types of tasks and strategies provide better opportunities for language learners to achieve more durable L2 lexical collocation learning. To address this issue, the present study is an early attempt to disclose the effectiveness of scaffolding strategies- namely direct corrective feedback, cooperative group technique, and visual aids – using input- and

output-oriented tasks on Iranian EFL learners' receptive and productive knowledge of lexical collocations.

## Collocations

Collocations pave the way for learners to understand better and produce language (Ellis, 2003; Nesselhauf, 2005). Ünver (2018) opines that collocations knowledge reduces the processing load of both speakers and listeners of the language. Collocations, as Milton (2009) notes, are mainly classified into two main categories: Grammatical and lexical. Grammatical collocations usually involve content words (i.e., nouns, adjectives, verbs, and adverbs) plus a preposition or a grammatical structure such as 'to+ verb (infinitive)' or 'that-clause', e.g., by chance, to be afraid that. In contrast, lexical collocations do not include grammatical elements, but are content words falling into the following combinations: noun + noun (e.g., washing machine), adjective + noun (e.g., strong/weak tea), verb + noun (e.g., shrunk shoulder), noun + verb (e.g., bees buzz), and verb + adverb (e.g., whispered softly) and adverb + adjective (e.g., deeply absorbed).

Besides, an equally important issue is that collocations are generally believed to be one of the problematic areas of language to learn. Scholars (e.g., Taiwo, 2004), for instance, argue that translating collocations word by word from one language to another may lead to inappropriate combination (e.g., tall people not high people). Laufer (2011) asserts that oral communication and the written tasks of L2 learners, even at advanced levels of proficiency, show a lack of collocational knowledge. Furthermore, thanks to more flexibility of lexical collocations compared to grammatical collocations, there has been the greater possibility of freedom in combining words and, as a result, committing collocational errors. This has spurred researchers to seek ways of teaching and integrating lexical collocations into the language materials in an effective and principled manner. One such way may be the application of task-based instruction.

## The Role of Tasks

Although there is little debate on the usefulness of tasks in language teaching, the issue of what type of task to use has been controversial. Krashen's Input Hypothesis (1985) accentuates the notable role of comprehensible input in language acquisition, meaning that input is both necessary and sufficient for language acquisition. According to Renandya (2012), however, while learners' underlying linguistic system can be developed by input tasks, fluent use of language may only be achieved through output tasks. The underlying premise, as Swain and Lapkin (1998) argue, is that output tasks can pave the way for learners to modify their output through noticing their linguistic

shortcomings. To put it simply, L2 production could provide learners with a great opportunity to make them aware of the gaps in their knowledge and direct their attention to form, function, and meaning through which learners can take control over their learning and produce the target language (Swain, 2000).

The importance of input or output tasks has been brought into light in a set of empirical studies (Alavinia & Rahimi, 2019; Hashemi Shahraki & Kassaian, 2011; Roohani, Forootanfar & Hashemian, 2017; Salimi & Shams, 2016; Vosoughi & Mehdipour, 2013; Webb, 2005). For example, Webb (2005) probed the effects of glossed sentences (as input tasks) and sentence creation (as an output task) on Japanese learners' word knowledge. The results indicated that in the first experiment with the same amount of time to task completion, the reading task was successful, while in the second experiment, which allocated a different amount of time to task completion depending on the task type, writing task was superior to reading task. This study concluded that when it comes to authentic learning, productive tasks should be preferred to receptive ones.

Nevertheless, regardless of the type of task used, EFL learners have substantial difficulty with lexical combinations; often, they lack the necessary knowledge and strategies for handling such elements (Chung & Nation, 2004). The use of appropriate learning strategies is one crucial factor that can enhance engagement and result in better collocations learning. One of the effective learning strategies is scaffolding.

## Learning Scaffolding Strategies

Sawyer (2006) used the term scaffolding to refer to the support provided during the teaching process to meet students' needs when they are introduced to novel concepts and skills. This can lead to deeper and higher levels of learning.

Scaffolding is closely related to the Zone of Proximal Development (ZPD), which is a key term in Socio-Cultural Theory (SCT) (proposed by Vygotsky). Vygotsky (1978) defines ZPD as the difference between the actual developmental level and the potential level of development measured as problem solving under guidance from adults or more capable peers (Verenikina, 2008). Based on Vygotsky's theory of social constructionism, scaffolding is the temporary assistance provided by an expert for novices so as to enhance their independency. This aid is gradually removed as they can develop their own ability and skills, and become more competent to demonstrate mastery and perform task independently (Diaz-Rico & Weed, 2002).

Scholars have proposed various categories of scaffolding strategies to meet students' needs in English language classes. According to Echevarria, Vogt and Short (2004), the most common and practical scaffolding strategies that can be applied in language

classes to teach single and multi-words are classified into three main types: verbal, procedural and instructional, each consisting of a variety of techniques.

The present study utilizes three scaffolding techniques of direct corrective feedback as a verbal scaffolding technique, cooperative group technique as a procedural scaffolding technique, and visual cues as an instructional scaffolding technique, and compares their effectiveness on learning lexical collocations.

## Direct corrective feedback

In SLA contexts, as Baleghizadeh and Gordani (2012) note, feedback could bridge the gap between what has been learned and the target competence of the learners. In general, there are two kinds of feedback; positive and negative. In negative feedback, or corrective feedback (Ammar & Spada, 2006), information follows an error produced by the language learner to inform him of the fact of error (El Tatawy, 2002). Schmidt (1994) believes that corrective feedback causes learners to notice the gaps between the target norms and their interlanguage, resulting in the restructuring of grammatical forms. Therefore, corrective feedback can provide needed attention for acquisition and push students' production towards greater accuracy, clarity and comprehensibility (Garcia-Ponce & Mora-Pablo, 2017).

In the area of L2 collocations teaching, Alipanahi and Naghiloo (2016) cast light on the role of direct, indirect, and self-correction feedback in L2 lexical and grammatical collocations learning. The results revealed that indirect feedback had a positive impact on learners' collocational knowledge compared with direct and self-correction feedbacks. Zarei and Mousavi (2016) also tried to examine the effects of three kinds of feedback – direct, indirect, and peer feedback- as a scaffolding strategy on Iranian EFL learners' recognition of lexical collocations. The results revealed that the group that received indirect corrective feedback had the best performance, whereas the group that was scaffolded by direct corrective feedback showed the least performance. The findings also indicated that the participants in the peer feedback and indirect feedback groups did nearly the same on the post-test.

## Cooperative Group Technique

In cooperative learning context, group members endeavor to make individual contributions to promote learning and to achieve a common goal for the group (Johnson, Johnson, & Smith, 2014). This technique helps learners jointly build up knowledge. As a matter of fact, there is a positive interdependence among group members while any individual takes his own accountability in learning (Bolukbas, Keskin & Polat, 2011; Van Lier, 2004). Wajnryb (1990) asserts that when learners make

a joint attempt to produce the language, they notice more gaps in their knowledge of language and reflect on form-meaning relationships as they get feedback from their peers. In actual fact, in cooperative learning projects each member of a group displays his own learning styles or strengths as all members may be exposed with multiple learning benefits, methods and strategies. Hence, in cooperative activities, learners' language proficiency and personal skills like teamwork or problem-solving can be developed (Olaya & González-González, 2020).

Some empirical studies (e.g., Ahmadpour & Yousefi, 2016; Hayati & Ziyaeimehr, 2011; Safadi & Rababah, 2012) put emphasis on the noticeable impact of cooperatively scaffolded learning environment on learners' development of reading, writing, speaking, etc.

## Visual aids

Images and visual cues can represent relationships among ideas and concepts. They provide students with concrete, visual connections between words and their meanings (Zarei & Gilanian, 2013). Memorizing words via their corresponding images can help learners create their own 'inner blackboard', as termed by Armstrong (2000). Ghader and Bahlooli Niri (2016) argue that pictorial presentation of novel lexical combinations activates many parts of the brain and reinforces vocabulary learning in a foreign language. This scaffolding tool assists learners to get the information via an extrasensory perception (Sadeghi & Farzizadeh, 2013). As Milton (2009) states, imagery provides learners with dually rather than singly coded information. Thus, it promotes learners' memory ability.

Empirical research in the area of vocabulary learning using images and visual representations shows that pictures and visual aids are efficient tools for retention and retrieval of words and lexical combinations (Beaman, 2002; Bird & Williams, 2002; Hamzah, 2018; Mashhadi & Jamalifar, 2015; Zarei & Khazaie, 2011). For instance, Mashhadi and Jamalifar (2015) compared visual cues and textual input-enhancement with regard to their effectiveness on learners' lexical knowledge. In the visual presentation group, tools such as pictures, flashcards, semantic maps, and videos were used to teach the target words. For textual-input enhancement group, the target words were contextualized in texts and presented in bold face; translation, synonyms, and antonyms were also provided when needed. The results revealed that visual cues were more beneficial on vocabulary knowledge than textual-input enhancement.

As can be inferred from the above-alluded, it is difficult to generalize the specific types of scaffolding processes to all teaching settings and all L2 learners. On the other hand, casting a glance into the literature, to the best of knowledge of the researchers, it is revealed that the studies on collocations have mainly been an endeavor to explore the



effectiveness of one or two tasks on teaching or learning collocations. Consequently, the findings of such studies are rather limited. More research is needed to uncover the impact of tasks in different orientations. Moreover, it seems necessary to investigate the impact of different scaffolding techniques to support learners' learning. Therefore, this gap was the staple impetus for the researchers to explore the effects of input- and output-oriented tasks and also different scaffolding techniques on learners' comprehension and production of lexical collocations. In more specific terms, the following research questions were put forward:

1. Is there any significant difference between the effects of scaffolding strategies using input-oriented and output-oriented tasks on Iranian EFL learners' receptive knowledge of lexical collocations?
2. Is there any significant difference between the effects of scaffolding strategies using input-oriented and output-oriented tasks on Iranian EFL learners' productive knowledge of lexical collocations?

## Method

The participants of the study consisted of an initial sample of 580 Iranian EFL learners (male and female) at lower Intermediate level of proficiency who were studying English in private language institutes. After the administration of a sub-test of the Key English Test (KET), 40 participants who differed in terms of their proficiency level were excluded from the study; those who scored more than one standard deviation away from (above or below) the mean were excluded from the study. There remained 540 participants to take part in the study. They consisted of 346 females and 194 males; their age ranged from 18 to 35. They were randomly assigned to eighteen experimental groups, each with 30 participants. There was no control group in this study. The reason was twofold; first, owing to practicality reasons it was not possible to recruit another group; second, and more importantly, this study primarily aimed to compare the effects of variables (i.e., tasks and strategies) with each other on learning collocations.

## Instruments and Materials

To fulfill the purpose of this study, several materials and instruments were utilized as follows:

## Key English Test

To ensure the participants' homogeneity in terms of their language proficiency, a test of general English, including parts one to seven of KET, was administered to all the participants. Parts one to seven of the test contained 50 items. The first three parts measured lexical and grammatical knowledge at word or sentence level. Part four measured reading comprehension through a passage followed by multiple-choice items. Part five contained a cloze passage in which each blank had to be completed by choosing the best word from among three given alternatives; parts six and seven included productive items. In part six, the participants had to read the descriptions of some jobs and write that job in the blanks provided. The initial letter of the target word was also given; part seven (the last part) contained 10 gap-filling items. The participants were required to read a postcard and use their own knowledge to fill in the blanks. Each blank had to be filled with only one word. The oral section of the test was not included for practicality reasons. Since just a sub-test of KET was used in this study, the KR-21 formula was applied to check its reliability. The reliability index of the sub-test turned out to be .77.

## Pre-test

Before the commence of treatment, all the participants' background knowledge of the target lexical collocations was assessed via a pretest. The pretest contained 100 English sentences, each of which included one lexical collocation. In each sentence, one part of each target lexical collocation was given and the other part was omitted. The Persian equivalent of the collocations was provided at the end of each sentence as a clue. This was done to make sure that the participants understood the purpose of the test and did not fill the blanks using words other than the target collocations. The participants were asked to supply the missing words in the sentences. The target lexical collocations were selected from English Collocations in Use (McCarthy & O'Dell, 2006), and student's book 3 of Touchstone for learners at the lower-intermediate level. The lexical collocations included the following structures: noun + noun, adjective + noun, noun + verb, verb + noun, verb + adverb, and adverb + adjective.

## Tasks

**Input-oriented tasks:** True-false Tasks: These tasks consisted of marginally glossed texts accompanied by true-false sentences. Each sentence contained one collocation. The participants had to read each sentence to decide whether it is true or false. Matching Tasks: In matching tasks, the participants had to read texts that were marginally glossed. Afterwards, they were given a matching activity in which

the first part of a lexical collocation in one column (column A) was matched with its second part in the other column (column B). There was one extra item in column B. Multiple-choice Tasks: These tasks included texts that were not marginally glossed. The participants had to look up the collocations in a dictionary. Each text contained blanks, for each of which four alternatives were given after the text. To fill the gaps, the learners had to choose the right collocations from among the alternatives presented in multiple-choice form.

**Output-oriented tasks:** Short-response Tasks: Participants in the short-response task condition received the same marginally glossed text to read, and then to complete the short-response tasks focused on the target lexical collocations. Fill in the blanks Tasks: Here, the participants were given texts that were marginally glossed. Afterwards, the learners were required to complete the fill in the blanks task focused on the target collocations. In each task, gaps were made by omitting collocations. One part of the target collocation was given as cues in each blank. The blanks had to be filled with the collocations provided by the learners. Sentence Formation Tasks: Learners had to read the same marginally glossed texts. Afterwards, they were asked to use each of the target lexical collocations to generate new English sentences.

### Post-test

The post-test package consisted of two types of test: A multiple-choice test and a fill-in-the-blanks test were administered after the treatment to measure the comprehension and production of collocations, respectively. It is worth noting that the post-tests were developed by researchers, thus before the commence of the main study, a pilot study was done to examine item characteristics and test characteristics. The results of item facility and item discrimination left 40 items for each posttest. In addition, to ensure the content validity of the posttests, both the content of the tasks and that of the posttests were carefully examined by several experts. Finally, a 40-item multiple-choice test (to measure comprehension) and a 40-item fill-in-the-blanks test (to measure production) were administered immediately after the treatment. Moreover, the KR-21 formula was applied to estimate the reliability of the post-tests. The reliability indices of comprehension and production tests were .78 and .81, respectively.

### Procedure

Initially, the participants of the study were selected through purposive sampling. To homogenize the groups, a sample of KET with the above-mentioned characteristics was administered. The participants whose score fell one standard deviation away from (above or below) the mean were excluded from the study. Each group of participants

was randomly divided into one of the experimental conditions. Before the treatments, to decrease the impact of the participants' prior knowledge of collocations, the pre-test was administered. Those items with which more than ten percent of the participants were familiar were not included in the posttests. It should be mentioned that besides the unfamiliar collocations that were identified in the pre-test (73 collocations), a number of lexical collocations (25 collocations) were also selected from the aforementioned sources to be taught in the treatment.

In the treatment stage, three kinds of tasks were designed for different treatment conditions. Each of the experimental groups received an average of seven new collocations each session; then they practiced using one of these tasks: True-false task (Task A), Matching task (Task B), Multiple-choice task (Task C), Short-response (Task D), Fill-in-the-blanks (Task E), and Sentence formation (Task F).

At the same time, the present study used three scaffolding techniques of direct corrective feedback as a verbal scaffolding technique, cooperative group technique as a procedural scaffolding technique, and visual cues as an instructional scaffolding technique to support teaching lexical collocations. These techniques were used to back up teaching lexical collocations to the experimental groups. Six groups received instruction using tasks A, B, C, D, E, and F (one task for each group) and the scaffolding technique of direct corrective feedback. For six other groups, the tasks A, B, C, D, E, and F were scaffolded through the cooperative group technique. Each of the remaining six groups received one of the tasks A, B, C, D, E, and F, and the scaffolding technique of visual aids.

In direct corrective feedback, after the teacher collected learners' handouts, she underlined their collocational errors and wrote the correct form of the target collocations above or near the erroneous form. She then gave the handouts back to the learners. The teacher also wrote the correct form of all lexical collocations on the board.

In the cooperative group technique, at the outset of each session, the teacher divided learners into groups of five and guided them how to perform a task cooperatively. During performing the task, the teacher monitored groups carefully.

In the scaffolding technique of visual cues, for all of the six experimental groups, at the beginning of each session, new collocations were shown on screen one by one, and the learners were given a handout with the same collocations or images. The images were digital and real pictures downloaded from the Internet. Then, the learners were asked to start working on the tasks.

The treatment lasted 17 sessions (2 sessions a week), of which the first two sessions were allocated to the KET test and the pretest, 14 sessions to treatment, and one session to the posttests. It is worth noting that about an hour was allocated to the experiment

each session because the learners had the books and materials related to their course as well. After the treatment, two posttests were administered to all the participants. After the data were gathered, two separate two-way Analysis of Variance (ANOVA) procedures were utilized to answer the research questions.

## Results

### The First Research Question

This question intended to explore the effects of scaffolding strategies using input- and output-oriented tasks on EFL learners' comprehension of lexical collocations. To this end, a two-way ANOVA procedure was used. First of all, the data were assessed for the assumption of the equality of variances. Levene's test result ( $F(5, 534) = 2.818$ ,  $p > .05$ ) showed that this assumption was not violated. To check the assumption of normality of scores, the results of the Kolmogorov-Smirnov statistic were checked. The result ( $KS(540) = .05$ ,  $p > .05$ ) showed that this assumption was also met. In addition, to check for extreme scores, the ID values of the most extreme cases were checked in the Extreme Values table. Next, to see whether or not the extreme scores highly affected the mean, the value of 5% Trimmed Mean was checked in descriptive statistics. It was observed that the values of the original mean and the new trimmed mean were not very different. Therefore, it could be assumed that the mean was not highly influenced by the extreme scores.

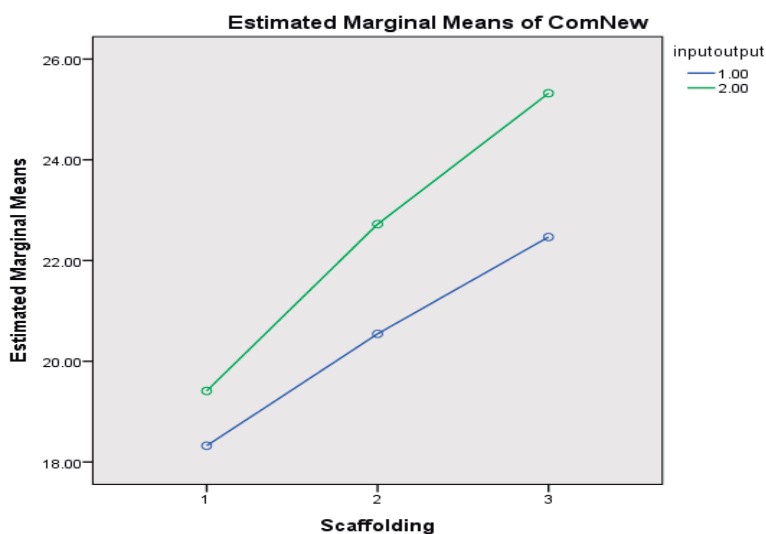
After checking all the assumptions, descriptive statistics, including mean, standard deviation, etc., on the collocations' comprehension test, were summarized (Table 1).

Table 1. Descriptive Statistics of the Collocation Comprehension Posttest

Task type	Scaffolding Strategies	N	Mean	Std. Deviation
Input-oriented tasks	Direct Feedback	90	18.32	3.067
	Cooperative Technique	90	20.54	3.257
	Visual Cues	90	22.72	3.678
	Total	270	20.44	3.739
Output-oriented tasks	Direct Feedback	90	19.41	2.272
	Cooperative Technique	90	22.46	2.918
	Visual Cues	90	25.32	3.668
	Total	270	22.48	3.853

Table 1 shows that in both task categories, the highest mean belongs to the scaffolding strategy of visual cues, followed by the cooperative group technique and direct corrective feedback, respectively. The implication is that the strategies of visual cues and cooperative group technique were more effective than direct corrective feedback on learners' receptive knowledge of lexical collocations. Furthermore, the highest mean score in all three strategies belonged to output-oriented tasks. This means that the scaffolding strategies utilized in performing tasks were much more useful for output-oriented tasks than input-oriented tasks. Figure 1 graphically shows the differences among the groups.

Figure 1. Means plot of collocations comprehension posttest



The interaction effects and main effects of the scaffolding strategy and task orientation variables were checked to see if they are statistically significant. The results are given in Table 2.

Table 2. Tests of Between-subjects Effects for Collocations Comprehension Posttest

	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2916.454 <sup>a</sup>	5	583.291	57.661	.000	.351
Intercept	248798.669	1	248798.669		.000	.979
Task Orientation	562.224	1	562.224	55.578	.000	.199
Scaffolding Strategy	2282.737	2	1141.369	112.829	.000	.297
Task Orientation* Scaffolding Strategy	71.493	2	35.746	3.534	.084	.009
Error	5401.878	534	10.116			
Total	257117.000	540				
Corrected Total	8318.331	539				

Table 2 shows no statistically significant interaction between the effects of task orientation and scaffolding strategies on the comprehension of lexical collocations, ( $F(2, 534) = 3.53, p < .05$ ). This implies that there is no statistically significant difference in the impact of scaffolding strategies on collocations comprehension for input-oriented and output-oriented tasks. Furthermore, the values of partial eta squared for task orientation and scaffolding strategies were .19 and .29, respectively, both of which show very large effect size, based on Cohen (1988).

However, input-oriented and output-oriented tasks differ significantly from one another in terms of their effect on collocations comprehension ( $F(1,538) = 55.57, p < .0005$ ) in favor of output-oriented tasks. There are also statistically significant differences among the scaffolding strategies of direct feedback, cooperative technique, and visual cues ( $F(2,537) = 112.82, p < .0005$ ). To locate the significant differences, the Scheffe test was run.

Table 3. The Results of Scheffe Test

Task	(I) group	(J) group	Mean Difference (I-J)	Sig.
Input-oriented Tasks	Direct Feedback	Cooperative Technique	-2.222 <sup>*</sup>	.060
		Visual Cues	-4.440 <sup>*</sup>	.000
	Cooperative Technique	Visual Cues	-2.183 <sup>*</sup>	.000
Output-oriented Tasks	Direct Feedback	Cooperative Technique	-3.050 <sup>*</sup>	.000
		Visual Cues	-5.911 <sup>*</sup>	.000
	Cooperative Technique	Visual Cues	-2.866 <sup>*</sup>	.000

\*The mean difference is significant at the 0.05 level

These results reveal that the difference between the effects of scaffolding strategies on learners' receptive knowledge of lexical collocations is significant. The students in the cooperative technique group showed better performance than those in the direct corrective feedback group on the post-test. In addition, the results indicate that the participants who received visual cues outperformed the participants of the direct corrective feedback group. At the same time, the results show a meaningful difference between the effects of cooperative group technique and visual cues on students' collocational receptive knowledge in favor of visual cues.

## The Second Research Question

This question aimed at investigating whether or not there is any significant difference between the effects of scaffolding strategies using input- and output-oriented tasks on EFL learners' production of lexical collocations. For this purpose, a two-way ANOVA procedure was used. Before doing so, its assumptions were checked. The results of Levene's test ( $F(5, 534) = 1.075, p = .05$ ) and Kolmogorov-Smirnov statistic ( $KS(540) = .09, p = .05$ ) showed that the assumptions of homogeneity of variances and normality of scores were both met. In addition, the value of 5% Trimmed Mean was compared against the original mean, and no significant difference was observed between them, implying that the mean score was not heavily influenced by extreme scores. After checking the assumptions, descriptive statistics on the production test of lexical collocations were summarized in Table 4.

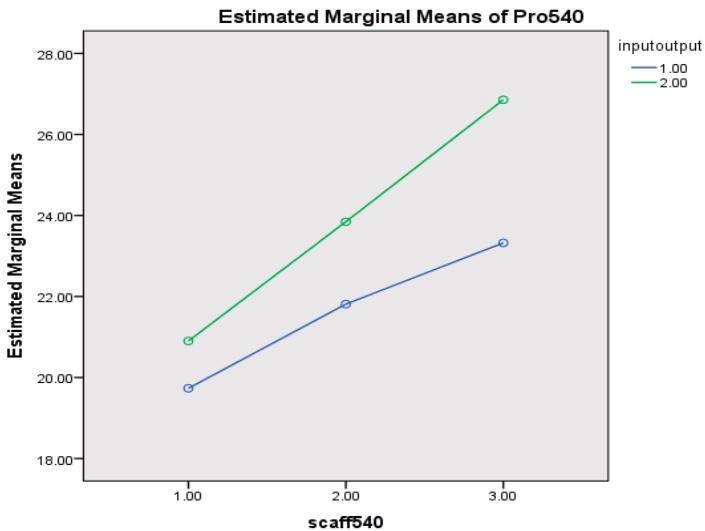


Table 4. Descriptive Statistics of the Collocation Production Posttest

Task type	Scaffolding Strategies	N	Mean	Std. Deviation
Input-oriented tasks	Direct Feedback	90	19.73	2.722
	Cooperative Technique	90	21.83	3.200
	Visual Cues	90	23.30	3.440
	Total	270	21.62	3.454
Output-oriented tasks	Direct Feedback	90	20.90	2.055
	Cooperative Technique	90	23.84	2.587
	Visual Cues	90	26.85	2.912
	Total	270	23.86	3.514

Table 4 indicates that the highest mean belongs to the scaffolding strategy of visual cues and cooperative group technique, respectively, and direct corrective feedback has the lowest mean score. This means that the strategies of visual cues and cooperative group technique are more effective than direct corrective feedback on learners' productive knowledge of lexical collocations. On the other hand, in all three strategies, output-oriented tasks groups have obtained the highest means. Figure 2 illustrates the differences among the means obviously.

Figure 2. Means plot of collocations production posttest



The results of tests of between-subjects effects were checked to examine the possibility of an interaction effect and the main effects of the two independent variables. Table 5 contains the results.

Table 5. Tests of Between-subjects Effects for Collocations Production Posttest

	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2860.644 <sup>a</sup>	5	572.129	70.200	.000	.397
Intercept	279347.267	1	279347.267		.000	.985
Task Orientation	680.067	1	680.067	83.444	.000	.135
Scaffolding Strategy	2051.544	2	1025.772	125.862	.000	.320
Task Orientation* Scaffolding Strategy	129.033	2	64.517	7.916	.090	.029
Error	4352.089	534	8.150			
Total	286560.000	540				
Corrected Total	7212.733	539				

Table 5 shows that task orientation has a significant effect on lexical collocations production, ( $F(1,538) = 83.44, p < .0005$ ), and that output-oriented tasks are significantly more effective than input-oriented tasks on collocational productive knowledge. Meanwhile, scaffolding is also a significant factor ( $F(2,537) = 125.86, p < .0005$ ). However, the interaction between the effects of task orientation and scaffolding strategies on the production of lexical collocations is not significant ( $F(2, 534) = 7.91, p > .05$ ). Meanwhile, the partial eta squared values for task orientation and scaffolding strategies are .13 and .32, respectively, showing very large effect size, according to Cohen (1988).

Since there were statistically significant differences among the scaffolding strategies on collocational production, the Scheffe post hoc test was used to locate the differences.

Table 6. The Results of Scheffe Test

Task	(I) group	(J) group	Mean Difference	Sig.
Input-oriented Tasks	Direct Feedback	Cooperative	-2.080 <sup>*</sup>	.000
		Technique Visual Cues	-3.571 <sup>*</sup>	.000
	Cooperative Technique	Visual Cues	-1.495 <sup>*</sup>	.000
Output-oriented Tasks	Direct Feedback	Cooperative	-2.942 <sup>*</sup>	.000
		Technique Visual Cues	-5.953 <sup>*</sup>	.000
	Cooperative Technique	Visual Cues	-3.013 <sup>*</sup>	.000
*The mean difference is significant at the 0.05 level				

Table 6 reveals that in both input- and output-oriented tasks, the visual cues technique and the cooperative group technique were significantly more effective than the direct corrective feedback on the production of collocations. In addition, visual cues turned out to be more effective than the cooperative group technique on the production of collocations.

## Discussion

The findings of this study showed that visual cues were the most effective scaffolding technique in the development of receptive and productive knowledge of lexical collocations in comparison with the two other scaffolding strategies, cooperative group technique and direct corrective feedback. There are a number of studies which lend support to this finding (Hamzah, 2018; Mashhadi & Jamalifar, 2015; Sadeghi & Farzizadeh, 2013). For instance, Mashhadi and Jamalifar (2015) reported that EFL students' vocabulary learning could be significantly reinforced using visual cues rather than textual enhancement. This finding of the present study is also in line with that of Sadeghi and Farzizadeh (2013), who compared the impact of pictorial tools and the conventional technique of definition on vocabulary instruction, and concluded that visual tools strongly affected word learning. In line with the findings of this study, Hamzah (2018) also reported that the picture word inductive model (PWIM) was significantly more effective on vocabulary learning than the control condition. This finding also substantiates Milton's (2009) claim that if words are associated with images, learners remember them better.

The reason may be because visually-mediated information is dually rather than singly coded. This means that the findings of this study approve the basic tenets of the dual-coding theory. Pictures activate the different parts of the brain and reinforce cognitive power, hence facilitating learning. Further support for this finding of the study comes from Zarei and Khazaie (2011), who observed that laptop-based delivery of multimodal items is a useful pedagogical tool to teach new vocabulary.

The findings of this study also showed that the cooperative group technique was the second effective scaffolding technique. This finding may be congruent with Swain (2010), who states that facilitative co-creation of language can help solve learning problems. As a matter of fact, interactive learning provides a context in which the use of language and language learning can dialogically co-occur. Similar to the findings of the present study, Hayati and Ziyaeimehr (2011) showed that the writing accuracy of the students who received joined construction tasks significantly improved. Likewise, Ahmadpour and Yousefi (2016) also came up with a finding in agreement with that of the present study. They concluded that group work significantly fosters learners' language acquisition. However, unlike the present study, the focus of their study was on grammatical points. This finding of the present study may also confirm Johnson, Johnson, and Smith's (2014) contention that cognitive restructuring or elaboration can occur throughout active participation and collaboration, consolidating new information into the current cognitive structures.

Furthermore, the results of the present study implied that although direct corrective feedback was effective on learners' comprehension and production of lexical collocations, it had the least effect compared to visual cues and the cooperative group technique. This finding is in agreement with the finding of Zarei and Mousavi (2016), who found that direct feedback, in comparison to indirect and peer feedback, was less effective on EFL learners' lexical collocations recognition. In agreement with the findings of the present study, Alipanahi and Naghiloo (2016) also reported that direct corrective feedback had the lowest effect on lexical and grammatical collocations learning, whereas indirect feedback and self-correction were more beneficial. These results may be due to the fact that direct corrective feedback is almost similar to the traditional methods of learning in which the teacher is responsible for students' learning.

On the other hand, in contrast with this study, Westmacott (2017) and Almasi and Nemat Tabrizi (2016) concluded that direct feedback was more effective than indirect feedback on language learning. The reason for this difference may be that their study compared the effect of direct and indirect feedback on students' grammatical and writing proficiency, whereas the focus of this study was on lexical learning. Another reason may be the number of the participants, in that Westmacott's study was constrained to only six learners.

Furthermore, the findings of this study stress the role of task orientation in lexical collocations achievement. The results revealed that the output-oriented tasks led to significantly better comprehension and production of lexical collocations than input-oriented tasks. This finding corroborates Swain's (2000) Output Hypothesis, based on which output tasks, due to their challenging nature, evoke EFL learners to process information more deeply. A number of previous studies lend support to this finding (Alavinia & Rahimi, 2019; Salimi & Shams, 2016; Vosoughi & Mehdipour, 2013; Webb, 2005). For instance, Alavinia and Rahimi (2019) and Vosoughi and Mehdipour (2013) concluded that students using productive tasks learn substantially more vocabulary compared to those using receptive tasks. Further support for this finding comes from Salimi and Shams (2016), who concluded that output-based tasks were more beneficial than input-based tasks in enhancing learners' writing ability. Webb's (2005) study was also in line with this finding. He reported that productive tasks like sentence writing are more successful than receptive tasks in improving word knowledge. In addition, the results of Roohani et al. (2017) revealed that output tasks were more successful than input ones in enhancing the learners' WTC, although both input and output tasks were significantly effective in improving grammatical accuracy.

## Conclusion and Implications

The findings of this study suggest that visual cues have positive effects on the comprehension and production of lexical collocations. Pictures can assist learners in making associations between words and images, and learning may be facilitated to a great extent (Milton, 2009). From this, it may be concluded that the dual-coding theory is applicable to collocations learning. It is also concluded that the application of colorful pictures in teaching new lexical items can bring images of reality into classes (Hill, 1990) and create a cheerful, enjoyable atmosphere, which makes learners enjoy their learning. This finding can encourage textbook developers to include suitable pictures in their books to capture learners' attention to unfamiliar collocations and to make them notice the different aspects of input.

The results of this study also indicated that the learners also benefited from the cooperative group technique in lexical collocations learning. It may be concluded that, if appealing visuals are supplemented with a variety of group or whole-class activities, students may experience far more viable learning. Specifically speaking, integration of visual cues and cooperative activities can provide opportunities for students to work more on abstract words, the meaning of which may not be accurately conveyed using pictorial tools (Thornbury, 2004). Based on the findings of this study, it is advisable for language educators to do their instruction via visual aids like blackboard drawings, digital images, wall pictures, charts, flashcards, etc., along with appropriate collaborative activities. Furthermore, from the finding that direct feedback was the

least effective factor in collocations learning, it may be concluded that teachers should resist the temptation to respond to every student error directly and move away from an interventionist approach towards more interactionist ways of teaching.

Moreover, the finding that output tasks were more efficient than input-oriented tasks, results one in the conclusion that adhering to the comprehensible input hypothesis and hoping that production will emerge once learners are ready might be leaving too much to chance, and that applying a bit of gentle pressure to learners to produce collocations may, in the long run, do them more service. Thus, this finding may be useful for language educators and material developers in the sense that they can design productive tasks that include a combination of pictures and group activities. Output tasks that are scaffolded by the integration of pictorial cues and cooperative activities may optimize the learning of collocations. This can occur only if language teachers become aware of the value of productive tasks and the importance of using scaffolding techniques like picture presentation and group activities in teaching collocations.

## References

- Ahmadpour, L., & Yousefi, M. H. (2016). Group collaboration, scaffolding instruction, and peer assessment of Iranian EFL learners' oral tasks. *The Journal of Applied Linguistics and Applied Literature: Dynamics and Advances*, 4(1), 31-44.
- Alavinia, P., & Rahimi, H. (2019). Task types effects and task involvement load on vocabulary learning of EFL learners. *International Journal of Instruction*, 12(1), 1501-1516.
- Alipanahi, F., & Naghiloo, M. (2016). Feedback and learning English collocation. *ELT Voices- International Journal for Teachers of English*, 6(5), 61-69.
- Almasi, E., & Nemat Tabrizi, A. (2016). The effects of direct vs. indirect corrective feedback on Iranian EFL learners' writing accuracy. *Journal of Applied Linguistics and Language Research*, 3(1), 74-85.
- Ammar, A., & Spada, N. (2006). One size fits all? Recasts, prompts, and L2 learning. *Studies in Second Language Acquisition*, 28(4), 543 -574.
- Armstrong, T. (2000). *Multiple intelligences in the classroom*. Alexandria, VA: ASCD.
- Baleghizadeh, S., & Gordani, Y. (2012). Academic writing and grammatical accuracy: The role of corrective feedback. *Gist Education and Learning Research Journal*, 6, 159-176.
- Beaman, C. P. (2002). Inverting the modality effect in serial recall. *Quarterly Journal of Experimental Psychology, Human Experimental Psychology*, 55(2), 371-389.
- Bird, S. A., & Williams, N. J. (2002). The effect of bimodal input on implicit and explicit memory: An investigation into the benefits of within-language subtitling. *Applied Psycholinguistics*, 23(4), 509-533.
- Bolukbas, F., Keskin, F. & Polat, M. (2011). The effectiveness of cooperative learning in the reading comprehension skills in Turkish as a foreign language. *The Turkish Online Journal of Educational Technology*, 10(4), 330-335.
- Chung, T. M., & Nation, I. S. P. (2004). Identifying technical vocabulary. *System*, 32(2), 251-263.
- Clark, K. F., & Graves, M. F. (2005). Scaffolding students' comprehension of text: classroom teachers looking to improve students' comprehension should consider three general types of scaffolding. *The Reading Teacher*, 58(6), 570-581.

- Cohen, J.W. (1988). *Statistical power analysis for the behavioral science* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Diaz-Rico, L.T., & Weed, K.Z. (2002). *The cross-cultural, language, and academic development handbook: A complete K-12 reference guide* (2nd ed.). Boston: Ally & Bacon.
- Echevarria, J., Vogt, M., & Short, D. J. (2004). *Making content comprehensible for English learners: The SIOP Model* (2nd ed.). Boston, MA: Pearson Education, Inc.
- Ellis, R. (2003). *Task-based language teaching and learning*. New York: Oxford University Press.
- El Tatawy, M. (2002). Corrective feedback in second language acquisition. *Working papers in TESOL & Applied Linguistics*, 2(2), 1-19.
- Garcia-Ponce, E., & Mora-Pablo, I. (2017). Exploring the effects of teachers' and learners' conflicting beliefs on the provision of corrective feedback during undisturbed classroom interactions. *Gist Education and Learning Research Journal*, 15, 125-148.
- Ghader, H., & Bahlooli Niri, M. R. (2016). The effect of pictorial presentation of vocabulary on EFL learners' retention. *The Journal of Applied Linguistics and Applied Literature: Dynamics and Advances*, 4(2), 101-114.
- Hamzah, A. (2018). Picture word inductive model in vocabulary learning. *English Education and Applied Linguistics (EEAL) Journal*, 1(2), 138-141.
- Hashemi Shahraki, S., & Kassaian, Z. (2011). Effects of learner interaction, receptive and productive learning tasks on vocabulary acquisition: An Iranian case. *Procedia Social and Behavioral Sciences*, 15(1), 2165-2171.
- Hayati, M., & Ziyaeimehr, Z. (2011). A Study on the effect of scaffolding through joint construction tasks on the writing composition of EFL learners. *Studies in Literature and Language*, 2(3), 92-102.
- Hill, D. A. (1990). *Visual Impact: Creative language learning through pictures*. Essex: Longman Group UK Limited.
- Hill, J. (2000). Revising priorities: From grammatical failure to collocational success. In M. Lewis (Ed.), *Teaching collocation: Further development in the lexical approach* (pp.47-69). Oxford: Oxford University Press.
- Hoshino, Y. (2010). The categorical facilitation effects on L2 vocabulary learning in a classroom setting. *RELJ*, 41(3), 301-312.



- Hüttner, J. (2005). Formulaic language and genre analysis: The case of student academic papers. *Views*, 14(1), 3–20.
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in University Teaching*, 25(3&4), 1-26.
- Krashen, S. (1985). *The input hypothesis: Issues and implications*. New York: Longman.
- Laufer, B. (2011). The contribution of dictionary uses to the production and retention of collocations in a second language. *International Journal of Lexicography*, 24(1), 29-49.
- Olaya, M., & González-González, G. (2020). Cooperative learning to foster reading skills. *Gist Education and Learning Research Journal*, 21, 119-139.
- Mashhadi, F., & Jamalifar, G. (2015). Second language vocabulary learning through visual and textual representation. *Procedia – Social and Behavioral Sciences*, 192(1), 298–307.
- McCarthy, M., & O'Dell, F. (2006). *English collocations in use*. Cambridge: Cambridge University Press.
- Milton, J. (2009). *Measuring second language vocabulary acquisition*. Bristol, England: Multilingual Matters.
- Nation, I. S. P. (2011). Research into practice: *Vocabulary*. *Language Teaching*, 44(4), 529–539.
- Nattinger, J. (1988). Some current trends in vocabulary teaching. In M. McCarthy & R. Carter (Eds.), *Vocabulary and language teaching* (pp. 62-82). New York: Longman.
- Nesselhauf, N. (2005). *Collocations in a learner corpus*. Amsterdam: John Benjamin.
- Nunan, D. (2004). *Task-based language teaching*. Cambridge: Cambridge University Press.
- Poorahmadi, M. (2009). The effect of employing scaffolding strategies and classroom tasks in teaching reading comprehension. *Journal of Teaching English as a Foreign Language and Literature, Islamic Azad University*, 1(3), 87-106.
- Renandya, W. A. (2012). The role of input- and output-based practice in ELT. In A. Ahmed, M. Hanzala, F. Saleem, & G. Cane (Eds.), *ELT in a changing world: Innovative approaches to new challenges* (pp. 1-12). Newcastle: Cambridge Scholars Publishing.

- Roohani, A., Forootanfar, F., & Hashemian, M. (2017). Effect of input vs. collaborative output tasks on Iranian intermediate EFL learners' grammatical accuracy and willingness to communicate. *Journal of Research in Applied Linguistics*, 8(2), 71-92.
- Safadi, E., & Rababah, J.G. (2012). The effect of scaffolding on reading comprehension skills. *International Journal of Language Studies*, 6(2), 1-38.
- Sadeghi, K., & Farzizadeh, B. (2013). The effect of visually-supported vocabulary instruction on beginner EFL learners' vocabulary gain. *MEXTESOL Journal*, 37(1), 1-12.
- Salimi, A., & Shams, K. (2016). The effect of input-based and output-based instruction on EFL learners' autonomy in writing. *Theory and Practice in Language Studies*, 6(3), 525-533.
- Sawyer, R.K. (2006). Analyzing collaborative discourse. In R.K. Sawyer (ed.), *Cambridge handbook of the learning sciences* (pp.187-204). New York: Cambridge University Press.
- Schmidt, R. (1994). Implicit learning and the cognitive unconscious: Of artificial grammars and SLA. In N. C. Ellis (Ed.), *Implicit and explicit learning of languages* (pp.165-210). London: Academic Press.
- Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge: Cambridge University Press.
- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. P. Lantolf (Ed.), *Sociocultural Theory and Second Language Learning* (pp. 97-114). Oxford: Oxford University Press.
- Swain, M. (2010). Talking it through: Linguaging as a source of learning. In R. Batstone (Ed.), *Sociocognitive perspectives on second language learning and use* (pp. 112-130). Oxford: Oxford University Press.
- Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *Modern Language Journal*, 82(3), 320-337.
- Taiwo, R. (2004). Helping ESL learners to minimize collocation errors. *The Internet TESL Journal*, X (4), 1-5.
- Thornbury, S. (2004). *How to teach vocabulary*. Longman: Pearson Education Limited.
- Ünver, M. (2018). Lexical collocations: issues in teaching and ways to raise awareness. *European Journal of English Language Teaching*, 3(4), 114-125.

- Vacca, J. (2008). Using scaffolding techniques to teach a social studies lesson about Buddha to sixth graders. *Journal of Adolescent and Adult Literacy*, 51(8), 652–658.
- Van Lier, L. (2010). *The ecology and semiotics of language learning: A sociocultural perspective*. Boston: Kluwer.
- Verenikina, I. (2008). Scaffolding and learning: Its role in nurturing new learners. In P. Lell, W. Vialle, D. Konza, & G. Vogl (Eds.), *Learning and the learner: exploring learning for new times* (pp. 236–240). Wollongong, Australia: University of Wollongong.
- Vosoughi, H., & Mehdipour, Z. (2013). Effects of recognition task and production task on incidental vocabulary learning of Iranian EFL learners. *International Research Journal of Applied and Basic Sciences*, 4(2), 356–363.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Wajnryb, R. (1990). *Grammar dictation*. Oxford: Oxford University Press.
- Webb, S. (2005). Receptive and productive vocabulary learning: The effects of reading and writing on word knowledge. *Studies in Second Language Acquisition*, 27(1), 33–52.
- Westmacott, A. (2017). Direct vs. indirect written corrective feedback: student perceptions. *Íkala, Revista de Lenguaje y Cultura*, 22(1), 17–32.
- Zarei, A. A., & Gilanian, M. (2013). The effect of multimedia modes on L2 vocabulary learning. *International Journal of Management and Humanity Sciences*, 2(1), 1011–1020.
- Zarei, G. R., & Khazaie, S. (2011). L2 vocabulary learning through multimodal representations. *Procedia-Social and Behavioral Sciences*, 15(1), 369–375.
- Zarei, A. A., & Mousavi, M. (2016). The effects of feedback types on Learners' recognition of lexical collocations. *International Journal of Applied Linguistics & English Literature*, 5(2), 150–158.

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