The Effect of Blended Learning Through Meaning-Focused Input and Output Activities on Learning Collocations[1]

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Abstract

This study examined the effect of blended learning through meaning-focused input and output activities on learning collocations. The participants were 124 EFL learners selected from an initial pool of 162 participants, based on their performance on an Oxford Placement Test. The 124 learners were divided into four groups consisting of a conventional group (N=32), a blended group (N=28), a meaning-focused input group (N=33), and a meaning-focused output group (N=31). A collocations test was given to the four groups as a pretest. Then, the first group received the face-to-face conventional treatment. The second group was exposed to blended learning. The third group was treated with meaning-focused input activities in a blended learning environment. The last group was given meaning-focused output activities in a blended learning environment. After the treatment, the collocations posttest was administered. The results of one-way ANOVA indicated that blended learning significantly improved EFL learners' collocational knowledge. Moreover, it was revealed that both meaning-focused input and output activities in a blended learning environment significantly enhanced EFL learners' collocational knowledge. However, the meaning-focused output group outperformed the meaning-focused input group. The results are discussed and implications for English language teaching are presented.

Resumen

Este estudio examinó el efecto del aprendizaje híbrido a través de actividades de input y output centradas en el significado en el aprendizaje de colocaciones. Los participantes fueron 124 estudiantes de inglés como lengua extranjera seleccionados de un grupo inicial de 162 participantes, en función de su desempeño en una prueba de ubicación de Oxford. Los 124 alumnos se dividieron en cuatro grupos que consistían en un grupo convencional (N=32), un grupo híbrido (N=28), un grupo de input centrado en el significado (N=33) y un grupo de output centrado en el significado (N= 31). Se administró un examen de colocaciones a los cuatro grupos como prueba previa. Luego, el primer grupo recibió el tratamiento convencional presencial. El segundo grupo estuvo expuesto al aprendizaje híbrido. El tercer grupo realizó actividades de input centradas en el significado en un entorno de aprendizaje híbrido. El último grupo realizó actividades de output centradas en el significado en un entorno de aprendizaje híbrido. Después del tratamiento, se administró el postest de colocaciones. Los resultados del ANOVA unidireccional indicaron que el aprendizaje híbrido mejoró significativamente el conocimiento de las colocaciones de los participantes. Además, se reveló que tanto las actividades de input como de output centradas en el significado en un entorno de aprendizaje híbrido mejoraron significativamente el conocimiento de las colocaciones de los participantes. Sin embargo, el grupo de output centrado en el significado superó al grupo de input centrado en el significado. Se discuten los resultados y se presentan las implicaciones para la enseñanza del idioma inglés.

Introduction

Collocations, as part of the lexicon, are considered highly important in second language (L2) learning. Emphasizing the importance of collocations in L2 learning and teaching, Bui (2021) contends that collocations constitute a substantial part of the English language, as they are employed in both written and spoken language. Bui, highlighting the importance of collocations, maintains that collocations are regarded as an essential factor in English as a Foreign Language (EFL) learners' proficiency. Notwithstanding the prevalence of collocations, EFL learners find learning and using collocations quite challenging (Fang et al., 2021) and commit errors in regard to collocations (Bui, 2021). Therefore, it is highly important to take appropriate teaching procedures to possibly improve the associated challenges with learning collocations and improve EFL learners' collocational knowledge.

One of the important aspects of language learning is the meaning-focused input-output duality, which should be considered when teaching different language components, such as vocabulary (Noroozi & Siyyari, 2019) and collocations. Decidedly, language is the major source for the generation and understanding of meaning; therefore, it is important to engage learners in meaning-focused activities associated with both input and output. It should be noted that not only the input-output duality should be considered to address both reception and production of language (Nation & Yamamoto, 2012), but also the possible environmental affordances, such as technology and its different modes of use. This should also be capitalized on to contribute most to developing various language components (Alipour, 2020).

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With the ever-growing spread of technology, one of the teaching approaches which can be employed to possibly enhance collocational knowledge is blended learning. Blended learning has proven effective in terms of vocabulary learning (Khodabandeh & Naseri, 2021). However, the possible contribution of blended learning to collocational knowledge has not been adequately researched. Given that blended learning offers the advantages of both online and face-to-face learning and there are few, if any, investigations exploring the effect of blended learning through meaning-focused input and output activities on learning collocations, it is essential to investigate the possible impact of blended learning, along with meaning-focused input and output activities on learning collocations. Thus, the present study, in an attempt to fill the gap in the empirical literature, sought to address the following research questions:

RQ1: Does blended learning significantly improve EFL learners' collocational knowledge in comparison with conventional learning?

RQ2: Do meaning-focused input activities in a blended learning environment significantly improve EFL learners' collocational knowledge?

RQ3: Do meaning-focused output activities in a blended learning environment significantly improve EFL learners' collocational knowledge?

RQ4: Is there a significant difference between the effects of meaning-focused input and output activities in a blended learning environment on EFL learners' collocational knowledge?

Literature Review

Collocations

Collocations are considered one of the most important constituents in the realm of English L2 learning (Saito & Liu, 2021). In a similar vein, Öksüz, et al. (2021) contend that multiword sequences, including collocations, are the essential building blocks in the process of language acquisition. Likewise, Nation (2013) maintains that collocational knowledge is deemed as one of the most essential aspects of vocabulary knowledge in several models of the mental lexicon. Due to their importance in L2 learning, collocations have been subject to many recent investigations (e.g., Dağdeler, et al., 2020; Namaziandost et al., 2020; Öksüz et al., 2021; Saito, 2020; Saito, & Liu, 2021; Wongkhan & Thienthong, 2020).

Collocation is defined as the frequent co-occurrence of several words the meaning of which can be derived from literal concepts (Chan & Liou, 2005). As pointed out by Cruse (1986), collocations refer to a string of naturally co-occurring lexical items. As Sinclair (1991) notes, collocations are made up of two elements, the node and the collocate co-occurring with the node. A review of the literature (e.g., Bahns & Eldaw, 1993; Durrant, 2009; Howarth, 1998; Nesselhauf, 2003; Schmitt 2010; Wray 2002) indicates that learning and using collocations is a demanding endeavor for L2 learners. A study conducted by Durrant (2009) showed that L2 learners made limited use of collocations, overusing general terms and underusing terms that are indicative of the degree of specificity. Research on collocations (e.g., Bahns & Eldaw, 1993; Howarth, 1998; Nesselhauf, 2003) reveals that the common errors made by highly proficient learners during their L2 production have to do with insufficient knowledge of collocations. Furthermore, as mentioned by Wray (2002), an argument has been put forth that the advanced learners' capability in making use of L2 collocations is by far weaker than their capability to use grammar and vocabulary. Consequently, it is essential to conduct research for the purposes of finding how to help EFL learners enhance their knowledge of collocations. Highlighting the importance of collocations in learning EFL, Rezaee et al. (2015) maintain that collocational competence should be considered an integral part of native-like L2 performance. Obtaining native-like competence requires L2 learners to acquire collocational competence besides other skills and sub-skills of language competence (Hill, 1999).

In the view of Benson et al. (1997), collocations should be classified as either grammatical or lexical. The former are concerned with the co-occurrence of content and function words, for instance, *extend to, fall for,* and *in advance*. In contrast, lexical collocations have to do with the co-occurrence of two or more content words (Rezaee et al., 2015). Some examples for lexical collocations include *keep a secret, heavily influenced, scream blue murder,* and *get away with murder.* Studies show that L2 learners make both lexical (e.g., Nesselhauf, 2003) and grammatical (e.g., Hill, 1999) collocational errors. A review of previous literature reveals that scholars have adopted various approaches in teaching collocations. Some scholars have explored the role of web-based concordancing (e.g., Rezaee et al., 2015; Sun & Wang, 2003; Wu et al., 2010) on learning collocations. Web-based concordancing involves the generation of many example sentences for collocation from a web corpus. Some researchers have looked into the effect of mobile-assisted

language learning (MALL) (e.g., Dağdeler et al., 2020) on learning collocations. Still other have examined the role of spaced instruction (with time intervals between exposures), massed instruction (with no time interval between exposures) (e.g., Namaziandost et al., 2020), and extensive reading (Khonamri & Roostaee, 2014; Vu & Peters, 2021) on learning collocations.

Meaning-focused input and output

As Nation and Yamamoto (2012) maintain, a well-balanced language course should have four equal strands of meaning-focused input, meaning-focused output, language-focused learning, and fluency development. It can thus be inferred that focusing on meaning can help enhance the language learning outcomes. Such a meaning-focused aspect of L2 learning activities is described as a focus on form in L2 acquisition literature. Laufer (2005) asserts that focusing on form involves focusing on the communicative aspect embedded in the linguistic structures required for completing the task. There is a general impression that concentration on form is more learning-centered and hence more conducive to L2 learning. According to Nation and Yamamoto (2012), meaning-focused tasks focus on learning through listening and reading. Such a mode of learning is similar to incidental learning in that the learners' attention concentrates on understanding what is being read or listened to. Therefore, in meaning-focused activities, the attention is mainly on comprehension, and learners are simply exposed to linguistic items in an attempt to learn the target items in an implicit way. The tasks focusing on making sense, namely, meaning-focused output activities, describe a process whereby learners are provided with an opportunity to enhance their L2 knowledge through taking part in speaking and writing activities with their attention being focused on the information they are trying to transmit (Swain, 2000).

As pointed out by Ellis (1997), while input-based instruction offers inputs in L2 contexts, output-based production tasks are aimed at providing the learners with ample opportunities to produce language in their interactions. This can possibly result in more effective learning outcomes. According to Swain (1985), L2 learning can be more effective if learners have the chance to produce language via output-based activities. As Swain (2000) contends, practicing output pushes learners to move from the strategic processing in comprehension to the comprehensive grammatical processing needed for accurate production.

Meaning-focused input and output activities have recently been explored by various scholars (e.g., Hanabusa & Juhn, 2018; Khonamri & Roostaee, 2014; Noroozi & Siyyari, 2019). Noroozi and Siyyari (2019) investigated the effect of meaning-focused input and output activities on Iranian EFL learners' active and passive vocabulary learning. The results revealed that both meaning-focused input and output activities led to improving active and passive vocabulary learning. Moreover, their results demonstrated that there was no significant difference between the meaning-focused input and output activities in terms of their effects on active and passive vocabulary learning. Khonamri and Roostaee (2014) investigated the effect of an extensive reading program, coupled with form versus meaning-focused activities- on the development of lexical collocations among Iranian Intermediate EFL learners. The results indicated that both form-focused and meaning-focused activities significantly enhanced learning collocations. However, there was not a significant difference between the effects of form-focused and meaning-focused activities on learning collocations. In another study, Hanabusa and Juhn (2018) elaborated on the development of a U.S. university's Japanese extensive reading Program. The program aimed at enhancing investigating Japanese EFL learners' extensive reading in the light of meaning-focused input and output activities. Hanabusa and Juhn (2018), underscoring the vital role of meaning-focused input activities for generating meaning-focused output content, reported that the program assisted the learners in becoming truly independent readers and learners. As they reported, the majority of the learners became involved in projects such as writing travel guides, poster exhibitions, and story writing as meaning-focused output activities subsequent to receiving meaning-focused input through extensive reading. through extensive reading.

Blended learning

The emergence of technology has led to its application to language learning. As an outcome of cutting-edge technology and its application in teaching, blended learning aims to enhance knowledge and performance (Rosenberg, 2001). Graham (2006) has described blended learning as a sort of learning involving a combination of online learning and face-to-face learning. In such a context, learners are directed to do pre-class self-directed learning activities, as well as interactive group learning activities for purposes of developing higher-order thinking abilities (Hung, 2015). The findings of several investigations have revealed the benefits of blended learning in the context of L2 education. For example, a study conducted by Spika (2002) showed that this method enables learners to improve their time management skills since they gain

more autonomy and flexibility in selecting time and place outside the classroom to do their work. Furthermore, blended learning allows learners to work with technology to enhance their learning. Technology encourages students to be more active, focusing on the lessons they are learning (Wesson et al., 2015).

According to Dziuban et al. (2005), blended learning increases student and teacher satisfaction and their motivation. Moreover, Graham et al. (2013) assert that blended learning allows learners to experience student-centered learning, enabling them to channel their own learning by themselves. In the same vein, Oh and Park (2009) note that blended learning creates an active environment of learning where resources are flexibly used by students. Therefore, L2 teachers can encourage learners to form groups for the purposes of collaboration and collective tasks. Learners' confidence and competence are expanded through additional resources provided through technology. This, in turn, improves the quality of learning (Azizan, 2010). Overall, the collaboration between teachers and learners can be reinforced by offering a type of online learning, which is appealing to the learner and can ultimately enhance learning outcomes (Yuen, 2010).

The results of previous studies reveal that blended learning is effective in improving writing performance (e.g., Hosseinpour et al., 2019; Purnawarman et al., 2016; Safdari, 2021; Wahyuni, 2018), accuracy and richness of collocations in writing (Chen & Jiao, 2019), reading comprehension (Ghazizadeh & Fatemipour, 2017), grammar (e.g., Al Bataineh et al., 2019), and speaking performance (e.g., Ginaya et al., 2018). Notwithstanding the important role of collocations, the effect of blended learning on learning collocations via meaning-focused input and output activities, which is the focus of the current study, is underexplored.

Method

Participants

The initial participants of the current study were 162 Iranian EFL learners studying at a language institute in Tehran. The participants were at the intermediate level of language proficiency and within the age range of 18 to 43 (M=28.75). They were selected based on convenience sampling from both male (N=89) and female (N=73) learners. The initial 162 learners were given an Oxford Placement Test (OPT) and based on the results only those whose scores fell within the range of 28 to 36 in line with the guidelines of the OPT were selected. The main reason was to have a group of homogenized participants in terms of language proficiency. Therefore, based on the OPT scores, 124 learners (Male N= 65, Female N=59) were selected to take part in this study. All had an intermediate level of language proficiency. Methodologically, the selection of homogenized learners could neutralize the possible effect of proficiency level on the results of the study.

Instruments and Materials

Oxford Placement Test (OPT)

At the outset of the study, OPT was applied to make sure that the participants were homogenous with regard to English language proficiency. Oxford Placement Test (OPT) is made up of 60 items, which assess the English learners' L2 proficiency. The test takers' performance is assessed based on their scores, showing their level of L2 proficiency from beginners to high advanced as follows: 1-17 (Beginner), 18-27 (Elementary), 28-36 (Intermediate), 37-47 (Upper-Intermediate), 48-55 (Advanced) 56-60 (High Advanced).

Collocations Test

To assess the learners' performance on collocations, a test containing 30 items (See Appendix) was developed by the researcher. The source of the collocations was the English *Collocations in Use Intermediate* (McCarthy & O'Dell, 2017). Initially, the researcher randomly selected ten units of *English Collocations in Use Intermediate*, and, then from each unit randomly selected three collocations to be incorporated into the test. To select the collocations, the researcher gave a number to each of the collocations in each unit and then drew three of the numbers randomly for each unit. Therefore, the selection of the target collocations was based on pure random chance. Then, a 30-item multiple-choice test was developed by the researcher. To ensure the content validity of the test, the initial items were commented by two PhDs in TEFL, and their comments were addressed accordingly. Following that, the test was given to 30 participants having similar characteristics to those of the main participants and Cronbach's Alpha was run. The Cronbach's Alpha index turned out to be .75, which is considered a satisfactory level of reliability (Cohen et al., 2018). The test of collocations was used both as pretest and posttest.

Procedure

Initially, 162 learners were selected based on convenience sampling and given an OPT. Based on the OPT results, 124 learners whose scores lay within the range of 28 to 36 were chosen as participants with intermediate level language proficiency. The 124 chosen learners were divided non-randomly into four groups consisting of the conventional group (N=32), the blended group (N=28), the meaning-focused input group (N=33), and the meaning-focused output group (N=31). The non-random division of the learners was done as the random assignment of individual learners to a specific group by the researcher was not feasible. Thus, the learners were asked to select the group, which best fit their time schedule of class. Upon grouping the participants, the collocations test was given to the four groups as pretest. To make sure that the four groups were not statistically different in terms of knowledge of collocations, a one-way ANOVA was run on the pretest scores.

Then, the first group (the conventional group) received face-to-face conventional treatment. More specifically, in this group, the learners were exposed to the target collocations via a conventional face-to-face method. In doing so, the teacher-researcher wrote the collocations on the board along with their definitions randomly and asked learners to match the collocations with their corresponding definitions. Then, the researcher asked the learners to use the collocations in sentences. Following that, the learners received feedback on their wrong collocation use from the teacher and other peers.

The second group (blended learning) was exposed to blended learning for teaching collocations. To do so, a combination of face-to-face and online teaching was used. The learners in this group were initially taught the collocations in a face-to-face environment. Following that, in a group on *Telegram*, the learners along with the teacher followed up the learning. To do so, the learners made sentences with the collocations and posted them on the group. Then, the learners and the teacher gave feedback and the learners corrected their sentences. Moreover, the teacher and learners found supportive materials on the Internet and posted them on the group.

As for the third group (meaning-focused input), the learners received meaning-focused input activities in a blended learning environment. In doing so, the learners received reading texts with target collocations in class. They were asked to underline the collocations they found difficult and then tried to guess the meanings. Then, the learners were required to answer reading comprehension questions and identify true/false statements posted by teacher on *Telegram* at home. The learners in this group were not required to use the collocations to produce any sentences.

As for the fourth group (meaning-focused output group), the learners were given the same reading texts used in the third group during class time. Then, on *Telegram*, they were required to make sentences with the target collocations. Moreover, they were asked to summarize each text using the target collocations and post the summary via a voice message on the group on *Telegram*. The treatment lasted for ten sessions for all groups.

After the ten sessions of treatment, all learners were given the posttest of collocations, and the scores were used to address the research questions.

Results

To make sure that the four groups of the study were not significantly different in terms of knowledge of collocations prior to treatment, a one-way ANOVA was run on the pretest scores for the four groups. Table 1 demonstrates the results of descriptive statistics for the pretest scores of the conventional, blended, blended meaning-focused input, and blended meaning-focused output groups.

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Pretest Conventional	32	7.4375	.36736	2.07811
Pretest Blended	28	7.5714	.44671	2.36375
Pretest Meaning- Focused Input	33	7.5758	.27876	1.60137
Pretest Meaning- Focused Output	31	7.3548	.38951	2.16869
Valid N (listwise)	28			

Table 1: Results of descriptive statistics for the pretest scores of the conventional, blended, blended meaning-focused input, and blended meaning-focused output groups

As shown in Table 1, the means for the conventional, blended, blended meaning-focused input, and blended meaning-focused output groups on pretest are 7.437, 7.571, 7.575, and 7.354, out of the maximum test score of 30. To see whether the differences among the means of the groups are statistically significant, One-way ANOVA was run. Table 2 depicts the results of ANOVA on the pretest scores for the four groups.

	Pretest All Groups				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.078	3	.359	.085	.968
Within Groups	507.890	120	4.232		
Total	508.968	123			

Table 2: Results of ANOVA on the pretest scores for the groups

As Table 2 indicates, the sig equals .968, which is higher than the confidence level of 0.05. Therefore, there were not any significant differences among the four groups of the study in terms of knowledge of collocations. Because, when the obtained sig level is higher than 0.05, it is an indication of the rejection of the null hypothesis stipulating any significant differences among the mean scores of the groups. Therefore, now, it can be inferred that the groups were homogenized in terms of collocational knowledge prior to the treatment and any differences among the posttest scores of the groups can be attributed to treatment types.

To explore any differences among the score means of the four groups and address the research questions, a one-way ANOVA was run on the posttest scores. Table 3 presents the results of descriptive statistics for the posttest scores of the conventional, blended, blended meaning-focused input, and blended meaning-focused output groups.

	N	Mean		Std. Deviation
	Statistic	Statistic	Std. Error	Statistic
Posttest Conventional	32	7.6563	.35811	2.02579
Posttest Blended	28	10.5000	.51306	2.71484
Posttest Meaning-Focused Input	33	13.8788	.75848	4.35716
Posttest Meaning-Focused Output	31	18.4194	.73290	4.08064
Valid N (listwise)	28			

Table 3: Results of descriptive statistics for the posttest scores of the conventional, blended, blended meaning-focused input, and blended meaning-focused output groups

As presented in Table 3, the means for the conventional, blended, blended meaning-focused input, and blended meaning-focused output groups on posttest are 7.656, 10.500, 13.878, and 18.419, respectively. To see whether the differences among the means of the groups on posttest are statistically significant, a one-way ANOVA was run. Table 4 presents the results of ANOVA on the posttest scores for the four groups.

	Posttest All Groups				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2009.105	3	669.702	56.070	.000
Within Groups	1433.282	120	11.944		
Total	3442.387	123			

Table 4: Results of ANOVA on the posttest scores for the conventional, blended, blended meaning-focused input, and blended meaning-focused output groups

As Table 4 indicates, there was a statistically significant difference at the $p < .05$ level among the mean scores of the four groups ($F (3, 120) = 56.07$, $p = .00$). Therefore, the post-hoc Scheffe test was run to spot the differences among the groups. Table 5 displays the results of the post-hoc Scheffe test for the posttest scores among the four groups.

Dependent Variable: Posttest All Groups Scheffe						
(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Conventional	Blended	-2.84375*	.89433	.021	-5.3797	-.3078
	Meaning-Focused Input	-6.22254*	.85743	.000	-8.6539	-3.7912
	Meaning-Focused Output	-10.76310*	.87094	.000	-13.2327	-8.2935

Blended	Conventional	2.84375*	.89433	.021	.3078	5.3797
	Meaning-Focused Input	-3.37879*	.88798	.003	-5.8967	-.8608
	Meaning-Focused Output	-7.91935*	.90103	.000	-10.4743	-5.3644
Meaning-Focused Input	Conventional	6.22254*	.85743	.000	3.7912	8.6539
	Blended	3.37879*	.88798	.003	.8608	5.8967
	Meaning-Focused Output	-4.54057*	.86443	.000	-6.9917	-2.0894
Meaning-Focused Output	Conventional	10.76310*	.87094	.000	8.2935	13.2327
	Blended	7.91935*	.90103	.000	5.3644	10.4743
	Meaning-Focused Input	4.54057*	.86443	.000	2.0894	6.9917

*. The mean difference is significant at the 0.05 level.

Table 5: Results of the Post-Hoc Scheffe Test for the posttest scores among the conventional, blended, blended meaning-focused input, and blended meaning-focused output groups

As seen in Table 5, the post-hoc comparisons using the Scheffe Test indicated that the score means for conventional group (M = 7.656, SD = 2.025) and blended group (M = 10.500, SD = 2.714) were significantly different (p=0.021<0.05) with the blended group outperforming the conventional group. Thus, it can be inferred that blended learning significantly improved EFL learners' collocational knowledge in comparison with conventional learning. Moreover, there was a statistically significant difference (p=0.003<0.05) between the posttest score means of blended group (M = 10.500, SD = 2.714) and blended meaning-focused input group (M = 13.878, SD = 4.357) with the blended meaning-focused input group outperforming the blended group. Therefore, it can be concluded that meaning-focused input activities in a blended learning environment significantly improved EFL learners' collocational knowledge. Furthermore, there was a statistically significant difference (p=0.000<0.05) between the posttest score means of blended group (M = 10.500, SD = 2.714) and blended meaning-focused output group (M = 18.419, SD = 4.080) with the blended meaning-focused output group outperforming the blended group. Therefore, it can be concluded that meaning-focused output activities in a blended learning environment significantly improved EFL learners' collocational knowledge. Finally, there was a statistically significant difference (p=0.000<0.05) between the posttest score means of blended meaning-focused input group (M = 13.878, SD = 4.357) and blended meaning-focused output group (M = 18.419, SD = 4.080) with the blended meaning-focused output group outperforming the blended meaning-focused input group. Accordingly, it can be inferred that the meaning-focused output activities in a blended learning environment were statistically more effective on EFL learners' collocational knowledge compared to the meaning-focused input activities in a blended learning environment. Figure 1 graphically displays the posttest score means on collocational knowledge for the four groups.

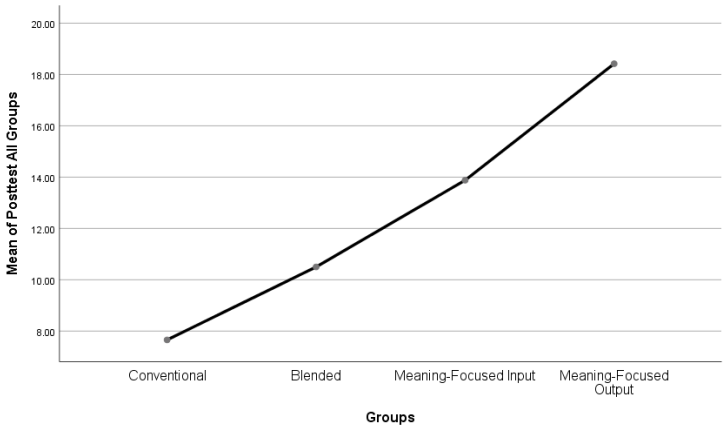

Figure 1. The posttest score means on collocational knowledge for the four groups

Discussion and Conclusion

The results of the present study indicated that blended learning significantly improved EFL learners' collocational knowledge. Moreover, the results revealed that both meaning-focused input and output activities in a blended learning environment significantly improved EFL learners' collocational knowledge. Furthermore, there was a significant difference between the effects of meaning-focused input and output activities in a blended learning environment on EFL learners' collocational knowledge with the meaning-focused output group outperforming the meaning-focused input group.

The results of the current study concerning the significant effect of blended learning on collocational knowledge substantiate the findings of previous investigations (e.g., Al Bataineh et al., 2019; Chen & Jiao, 2019; Ginaya et al., 2018; Hosseinpour et al., 2019; Purnawarman, et al., 2016; Wahyuni, 2018) revealing a positive effect of blended learning on different language skills and components. The findings of the current study are in congruence with the results of Chen and Jiao (2019) who concluded that blended learning approach is beneficial in improving the richness and accuracy of collocations in EFL learners' writings. The high rate of success of blended learning can be attributed to the higher level of satisfaction compared to conventional face-to-face classes as evident in the current study.

The findings of the current study regarding the significant improvement of both meaning-focused input and output activities in a blended learning environment on EFL learners' collocational knowledge confirm the results of previous research studies (e.g., Hanabusa & Juhn, 2018; Khonamri & Roostaee, 2014; Noroozi & Siyyari, 2019) indicating the positive effects of meaning-focused input and output activities on various language skills and components. In particular, the results of the current study are similar to the results of the current investigation of Noroozi and Siyyari's (2019); their study revealed that both meaning-focused input and output activities led to improving active and passive vocabulary learning. Likewise, Khonamri and Roostaee (2014) meaning-focused activities significantly enhanced learning collocations. The results of the present study concerning the positive effects of both meaning-focused input and output activities on learning collocations can be attributed to the focus on meaning in both experimental groups.

The results of the present investigation concerning the more significant effect of meaning-focused output activities in comparison with meaning-focused input activities on learning collocations are in contrast with the findings of Noroozi & Siyyari (2019). They found no significant difference between the effects of meaning-focused input and output activities on vocabulary learning.

Based on the results of the current study, EFL teachers are recommended to employ blended learning, and meaning-focused input and output activities in a blended learning environment to enhance EFL learners' knowledge of collocations. However, since the results indicated that meaning-focused output activities contributed the most to the knowledge of collocations, EFL teachers are encouraged to employ meaning-focused output activities in blended learning environments to improve EFL learners 'collocational knowledge. Syllabus designers are also recommended to design syllabi so as to facilitate the incorporation of meaning-focused output activities in a blended learning environment for both materials developers and teachers should the intention be the improvement of knowledge of collocations.

Although the results of the present study confirmed previous research findings regarding the effectiveness of both meaning-focused input and output activities in a blended learning environment on different language skills and components, the findings of this study should not be taken as conclusive. Thus, more research investigations are required to provide a more comprehensive picture of the contribution of meaning-focused input and output activities in a blended learning environment on knowledge of collocations. For instance, the participants of the current study were all at the intermediate level of language proficiency. A similar study can be carried out with participants from other proficiency levels to improve the generalizability of the findings. Moreover, collocational knowledge is only a part of lexical knowledge. Thus, future studies may focus on phrasal verbs or idioms to explore the impact of meaning-focused input and output activities in a blended learning environment on knowledge of idioms. Moreover, similar investigations can be conducted to probe EFL learners 'and/or teachers 'perceptions towards the effectiveness of meaning-focused input and output activities in a blended learning environment on knowledge of collocations.

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Appendix

Collocations Test

1-The president ……..to the Eifel Tower during his stay in France.
a-made money
b-paid a visit
c-kept a promise
d-took a turn

2-Please …… when you arrive in Madrid. I will miss you very much.
a-drop me some lines
b-pull my leg
c-zoom in
d-stay alert

3-Sometime we may…… when we manage a company. But they can be solved with collective wisdom and patience.
a-pull off well
b-make a big leap
c-run into problems
d-make profit

4-We go to university…….as it is not convenient to attend the classes all weekdays. The university is far away.
a-every other day
b-on the spot
c-in the rear
d-in a minute

5-They had promised to come to see us at our home but they didn't ……. They may have forgotten the appointment.
a-go up in smoke
b-split the hair
c-turn up
d-fall asleep

6- Ali couldn't ……...He was supposed to take me to his garden in the suburb.
a-keep his premise
b-change the horses midstream
c-let it go
d-pave the way

7-Road conditions are difficult because of the ……. We need to take shelter at the nearby house for now.
a-pleasant smell
b-driving rain
c-strong power
d-delicious food

8-I'm sure your glasses will…… Nobody needs your glasses. They are useless to others.
a-get along with it
b-break up with him
c-turn up
d-go up in smoke

9-She decided to seek ……. Some employees have cheated her in the company. She is in red.
a-my red hand
b-his laced shoe
c-fake money
d-legal action

10-……. to call if you need anything. I will be at your service.
a-Don't hesitate
b-don't make up
c-don't shave off

d-go on board

11-We should not rush to ……. We should take into account all the conditions and circumstances.
a-hit a jackpot
b-become tight lipped
c-draw a conclusion
d-break free

12-There were five eyewitnesses in the court. They had come to ……to the murder.
a-blow up
b-bear witness
c-go uphill
d-lower prices

13-All of us …….. for keeping our city clean and attractive.
a-wash linen
b-starve to death
c-bear the responsibility
d-show off

14-They …… him in the public. He became very upset and depressed following this disrespectful conduct.
a-made fun of
b-kept up
c-lived up to
d-made a hero of

15-They have announced some new traffic rules. But many drivers ……. them, which are believed to be unfair.
a-speak highly of
b- come on the side of
c-have respect for
d-take issue with

16-Please …… and enjoy the show. We have been waiting for you for many hours
a-write off
b-look down on me
c-take a seat
d-run out of fuel

17-….to come prepared for the test tomorrow. The test will be very difficult for those who have not studies well.
a-get along
b-make sure
c-come over
d-Lay off

18-You'll ……. if you turn off your smart phone and concentrate on the lesson.
a-save time
b-take off
c-take the bull by horn
d-take risks

19-John cannot be with us anymore. We are at peak of our businesses. We need to find a replacement for Jim…….
a-on the wire
b-in the middle of no where
c-as soon as possible
d-on the run

20-We're …… on the project at work. This is because of all the efforts we have made
a-looking down
b-making progress
c-spilling beans
d-at large

21-I'll ……. and you can put Johnny to bed. Afterwards both of us will rest.

a-do the washing up
b-burn midnight oil
c-shy away
d-go around

22-They can …… if they have enough money in their account.
a-bear a child
b-team up
c-deposit a check
d-put oil on fire

23-It is really more enjoyable to spend……. than to spend money which has been gained without any effort.
a-canned fish
b-hard-earned money
c-black lamb
d-undue time

24-We have been negotiating for a long time over this subject. Thus, we need to …….
a-start over
b-beat around the bushes
c- close a deal
d-change hand

25-The parties agreed over the conditions in the meeting and they decided to ……. next Thursday.
a-write up a contract
b-tear up
c-give away
d-pay off

26-Some fraudulent people make fake money to reap an overnight profit. They are so skillful that it is vet tricky to distinguish (a) …… from real money.
a-paper money
b-minted coin
c-counterfeit money
d-big money

27-The company's success has ……. Many people didn't expect it to be so successful in such a short time period.
a-taken everyone by surprise
b-been a wet blanket for its manager
c-been in the pipeline
d-doomed to death

28-John ……when he could not find the door key. He had to wait for 10 hours in the yard.
a-was in trouble
b-was up in the air
c-was carried away
d-was in red

29-Today, the governments need to follow some……rules with other governments if they are intent on becoming a success.
a-tidied up
c-rounded up
c-learner -based
d-give and take

30-Please ……. We are very respectful toward our guests. They can feel completely comfortable here.
a-save your face
b-bear my grudges
c-feel at home
d-make money