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Developing Bi-lingual Skills for Translation through an Online Multimedia-supported Learning Environment

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Abstract
Recent research shows that bi-lingual competence is one of the necessary skills that a translator needs in order to translate (PACTE, 2003). Apart from the mother tongue, a translator must have a command of other working languages. The purpose of this study was to investigate whether the online multimedia-supported learning environment concerning collocations in English (OMLEC) was effective in helping learners develop their bi-lingual skills through the acquisition of collocations. As a method, a quasi-experimental design was used. The study consisted of 40 students, 20 of whom were undergraduate ELT students and the other 20 were preparatory ELT students. The participants took a variety of tests such as diagnostic, study, achievement, and summative tests. A repeated measure ANOVA analysis was used to analyze the results of the tests. The results indicate that the OMLEC platform has made a significant contribution to learners' knowledge of bi-lingual competence through collocations. There was a significant difference between the diagnostic and study test scores, the diagnostic and achievement test scores, the diagnostic and summative test scores, the study and achievement test scores, and the study and summative test scores.
Keywords: Translation, Bi-lingual competence, Collocation, CALL, Multimedia, Online

1. Introduction

In translation competence, there is research that shows it is a multi-componential concept. One of the most seminal papers is the one put forward by PACTE research group. It defines translation competence as:

> "Translation competence is defined as the underlying system of knowledge and skills needed to be able to translate." (PACTE, 2003)

The model is made up of a set of sub-competencies that are inter-related and hierarchic: Bilingual, extra-linguistic, knowledge about translation, instrumental, strategic, psycho-physiological components. Translation competence is qualitatively different from bilingual competence. It is not just an advanced command of linguistic competence. Any translator has knowledge of two or more languages called language A, B or C. A language signifies the mother tongue. While B language is the working language of a translator in both directions, C language is the one used for translating from a language into the mother tongue.

In developing bi-lingual skills, having a command of collocations in the source language as well as in the target language is crucial for both translators, language learners and other language users who need to have native-like foreign or second language competence and to achieve better fluency. Collocations are one of the problematic areas that non-native speakers of a language experience. Levis (2000) defines collocations as "...words which are statistically much more likely to appear together than random chance suggests". Abdellah (2015) explains the term as "a linguistic term that refers to the tendency of certain words to keep company with other words". In addition, Crystal (2008) defines collocations as "the habitual co-occurrence of individual lexical items...". The definitions indicate that collocations are word pairs and phrases taking place together in authentic discourse. Related literature in the area of collocations shows that for non-native speakers of a language collocations are a source of difficulty (Leed and Nakhimovsky, 1979; Benson, 1985; Benson, Benson and Ilson, 1986; McAlpine& Myles, 2003). Durrant and Schmitt (2010) and Nation (2001) state that collocations can distinguish native speakers from non-native ones. Therefore teaching and learning collocations of a target language is extremely important. Gui and Yang (2002) conducted a study about the use of English and found that Chinese EFL students' most common mistake was in the use of collocations. The studies of Altenberg and Granger (2001) and Nesselhauf (2003) also assert that even the advanced level learners of English had difficulty recognizing and utilizing collocations correctly. Koç (2006) also conducted a study with Turkish native speakers learning English. It was observed that collocations were one of the problematic areas for Turkish bi-linguals.

Learners had difficulty in the correct use of collocations. One possible explanation might be that students were not exposed to the natural use of collocations, so it was difficult for them to use them naturally in speaking and writing. Overall, in the light of these studies it is clear that collocations are one of the important areas that learners of a language should be aware of to use a language efficiently (McALpine & Myles, 2003).

The arbitrary characteristic of collocations is one of the reasons that make it difficult to learn collocations. It means that there is no syntactic or semantic rule to predict them. To illustrate, "good chance" and "high probability" are acceptable collocations, but not "strong chance" and "good probability" aren't (Farrokh, 2012). Therefore, they can be learned through repeated usage and direct exposure. Another property of collocations that makes them difficult to learn is that the same word might mean something different, which is defined as "collocationally restricted meaning" (Carstairs-McCarthy, 2002). For example, in the collocations of "*white wine*, *white man* and *white lie"* the word "white" means something different according to the collocations used (Eser et al., 2015). Even if collocations are one of the main difficult areas in second language acquisition, the published translations of collocations as a learning material are not enough (Leed & Nakhimovsky, 1979).

Traditionally, collocations are taught in a classroom environment explicitly or implicitly. Lin (2002) stated that teaching collocations explicitly improved the knowledge of collocations of Chinese learners. In recent years, technological developments have influenced the way of teaching various disciplines of English Language like phonetics, lexicology, grammar and discourse analysis (Çelik, 2001). Computer assisted language learning environments, one of the offsprings of technological development, present users a more effective way of learning by meeting individual learning requirements, enriching learning experience and decreasing the conventional role of teachers (Kasapoğlu-Akyol, 2010). However, not many studies are present in investigating the explicit instruction of collocations in a CALL environment.

The present study was realized in an online Multimedia-supported Learning Environment concerning Collocations in English as C Language in Translation (OMLEC) platform named as "langabc". The platform "langabc" that aims to teach about 500 collocations via visual and audio inputs is a responsive learning environment that can be reached through computers and mobile devices easily (Eser et al., 2015). As there isn't much ready-to-use self-study material to learn collocations in an interactive way, this platform gives learners of English a chance to study collocations individually with visual and audio cues.

2. Research Design

2.1. Purpose of the Study

This paper aims to investigate how effective an online multimedia supported learning environment called "langabc" is in developing bi-lingual skills for translation and language learning through collocations at university level. By conducting this study, the following research questions are intended to be answered:

1. Does the Langabc improve students' knowledge of collocations?
2. Does the grade (first class and preparatory class) influence their achivement?
3. Is there a significant relationship between the test scores and grade of participants?

2.2. Method

In the study, the diagnostic, study, achievement and summative test scores of the students in the first year and the preparatory class were compared. When the participants cannot be assigned randomly, a quasi-experimental research design is preferred (Johnson& Christensen, 2000). Therefore, a repeated measure quasi-experimental design was chosen.

2.3. Participants

The participants in the present study were 20 undergraduate first year (M_{age}=19, 95) and 20 preparatory (M_{age}=19, 40) ELT students from a state university in Turkey. 10 out of 40 participants were male and 30 were female. The first year ELT students were the ones who had passed the proficiency exam of the university and started to study at their department. The preparatory class students were the ones who could not have passed the proficiency exam and had started their education in the English preparatory class.

2.4. Setting and Procedures

The study was realized on the "*Online Multimedia-supported Learning Environment concerning Collocations in English as C Language in Translation* (OMLEC)" platform, which can be accessed at langabc.amasya.edu.tr. The OMLEC is a responsive online learning environment designed to teach about 500 collocations via audio-visual inputs at the elementary-to-preintermediate level (Eser et al., 2015). Users can reach OMLEC through

computers and mobile devices online. OMLEC consists of 25 sets, each of which has 20 collocations in it (Figure 1).

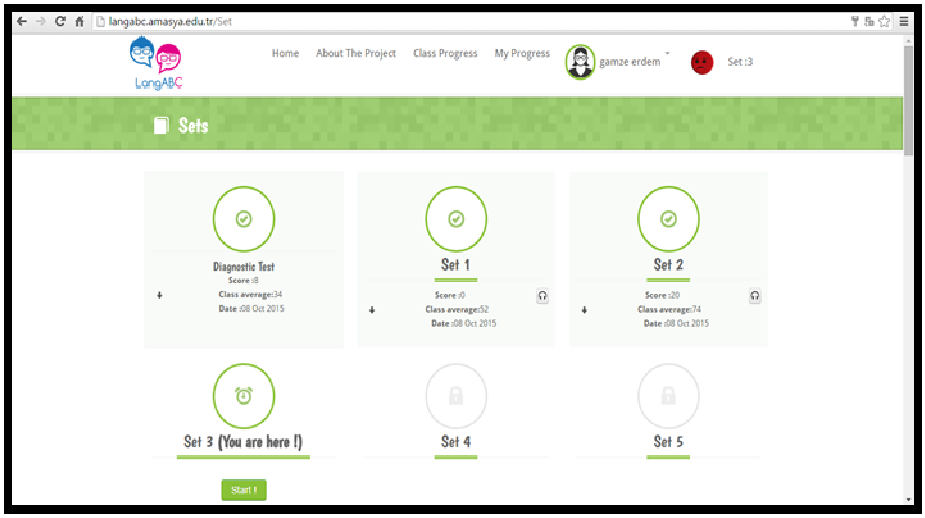
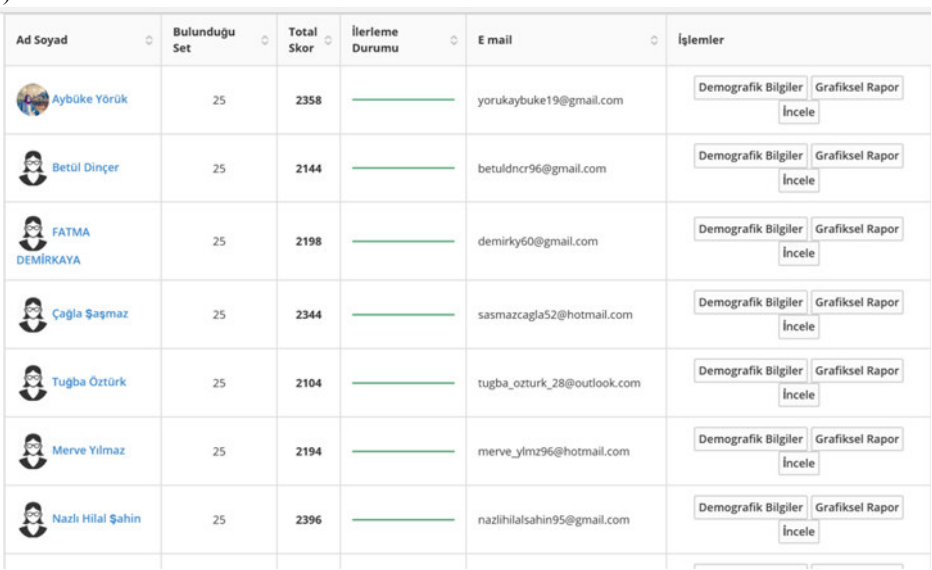


Figure 1: Sets of Collocations on the OMLEC Platform

Each collocation is supported by visual and audio inputs that help learners recall the newly learned items more easily. It is a user-friendly program for both students and teachers. Users can track their progress on the platform. Teachers can follow students' progresses in the application and can get in contact with them (Figure 2).



Ad Soyad	Bulunduğu Set	Total Skor	İlerleme Durumu	E mail	İşlemler
Aybüke Yörük	25	2358		yorukaybuke19@gmail.com	Demografik Bilgiler Grafiksel Rapor İncele
Betül Dinçer	25	2144		betuldncr96@gmail.com	Demografik Bilgiler Grafiksel Rapor İncele
FATMA DEMİRKAYA	25	2198		demirky60@gmail.com	Demografik Bilgiler Grafiksel Rapor İncele
Çağla Şaşmaz	25	2344		sasmazcagla52@hotmail.com	Demografik Bilgiler Grafiksel Rapor İncele
Tuğba Öztürk	25	2104		tugba_ozturk_28@outlook.com	Demografik Bilgiler Grafiksel Rapor İncele
Merve Yılmaz	25	2194		merve_ylmz96@hotmail.com	Demografik Bilgiler Grafiksel Rapor İncele
Nazlı Hilal Şahin	25	2396		nazlihilalsahin95@gmail.com	Demografik Bilgiler Grafiksel Rapor İncele

Figure 2: Students' progress on the OMLEC platform

This platform also has 4 face avatars describing students' progresses according to the scores taken by the students. These avatars are used as a means to give students a feedback and to help them feel motivated (Eser et al., 2015). For the scores under 40, a red avatar is used meaning "awful", for the scores between 40 and 60, a yellow avatar is used meaning "poor". Scores between 60 and 80 are displayed as a blue avatar meaning "satisfactory", and lastly, for the scores above 80, a green avatar is used meaning "perfect" (Figure 3).

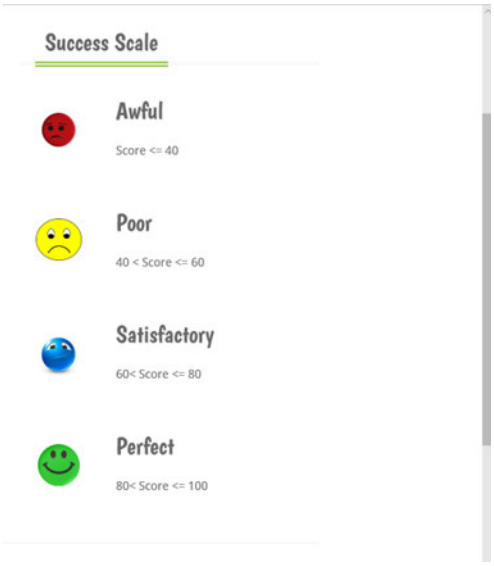


Figure 3: Success scale based on the learner's performance

In addition, OMLEC presents its users a variety of tests; namely, diagnostic, study, achievement and summative to evaluate their successes and improvements.

2.5. Data Collection Procedure

First of all, all registered users take a diagnostic test when they log in. Later, they complete 25 sets at their own learning pace. After every set, they take a study test (5 questions) and after every two sets, they take an achievement test (10 questions). At the end, they take a summative test. To complete this process, students were given one month and then, they took a certificate indicating their participation and completion.

2.5.1. Instrument

The diagnostic test consists of 50 questions (multiple choice:10, fill-in-the-blanks:10, translation from Turkish to English:10, translation from English to Turkish:10, and voice matching questions:10). The study tests consist of 5 questions (Multiple choice:1, fill-in-the-blanks:1, translation from Turkish to English:1, translation from English to Turkish:1, and voice matching question:1), and the achievement tests consist of 10 questions (Multiple choice:2, fill-in-the-blanks:2, translation from Turkish to English:2, translation from English to Turkish:2, and voice matching questions:2). Finally, the summative test which is parallel to the diagnostic test consists of 50 questions (multiple choice:10, fill-in-the-blanks:10, translation from Turkish to English:10, translation from English to Turkish:10, and voice matching questions:10).

2.5.2. Data Analysis

The quantitative data collected from the diagnostic, study, achievement and summative tests were analyzed on the SPSS 20.0 for the descriptive statistics and the repeated measure ANOVA analysis. The analysis was performed to discover whether there was any difference between the test scores of the students.

3. Findings

The descriptive statistics show that the mean score of the diagnostic test was 38, 30 (s=14, 85, N=20) in the preparatory class and 40, 40 (s=12, 21, N=20) in the first year (see Table 1). The mean score of the study tests was 73, 45 (s=9, 79, N=20) in the preparatory class and 78, 20 (s=6, 21, N=20) in the first year. The mean score of the achievement tests was 67, 20 (s=9, 99, n=20) in the preparatory class and 70, 90 (s=9, N=20) in the first year. The mean score of the summative test was 60, 30 (s=12, 50, N=20) in the preparatory class and 69, 50 (s=11, 92, N=20) in the first year.

Table 1: Means and standard deviations of the participants

Time	Grade	Mean	Std. Deviation	N
Diagnostic	prep class	38,30	14,858	20
	first year	40,40	12,219	20
Study	prep class	73,45	9,795	20
	first year	78,20	6,212	20
Achievement	prep class	67,20	9,993	20
	first year	70,90	9,008	20
Summative	prep class	60,30	12,503	20
	first year	69,50	11,927	20

A repeated measure ANOVA test was conducted to see whether one month exercise on collocations via the OMLEC platform had an effect on the test scores. Mauchly's Test of Sphericity indicated that the assumption of sphericity had been violated and therefore, a Greenhouse-Geisser correction was used. There was a significant effect of time on the test scores, F (2.04, 77.72) = 155.04, p < .0005. There was a significant difference between the diagnostic and study test scores, p<, 05; the diagnostic and achievement test scores, p<, 05; the diagnostic and summative test scores, p<, 05; the study and achievement test scores, p<, 05; the study and summative test scores, p<, 05 (see Table 2).

Table 2: Mean scores of tests with respect to grade

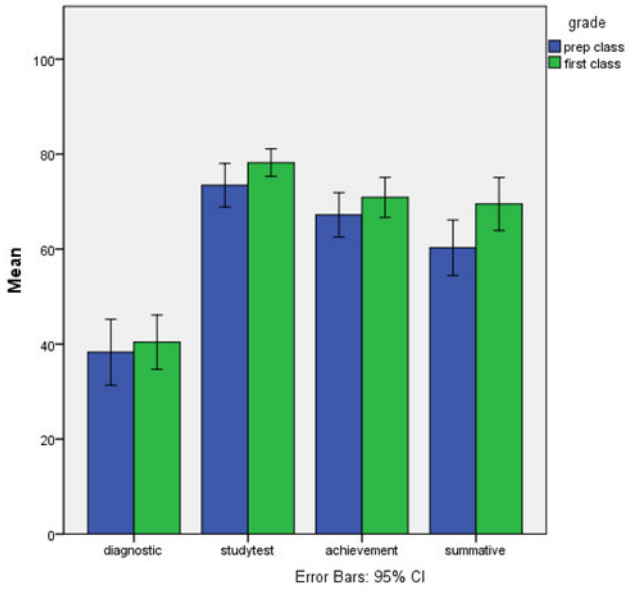


Figure 4: Mean scores of the tests with respect to grade

The repeated ANOVA also showed that there was not a statistically significant main effect of the year they were in, F (1, 38) =3, 30, p>, 05. However, no relationship was found between time and year (preparatory and first year), F (2.04, 77.72) = 1.41, p > .05 (see Table 3).

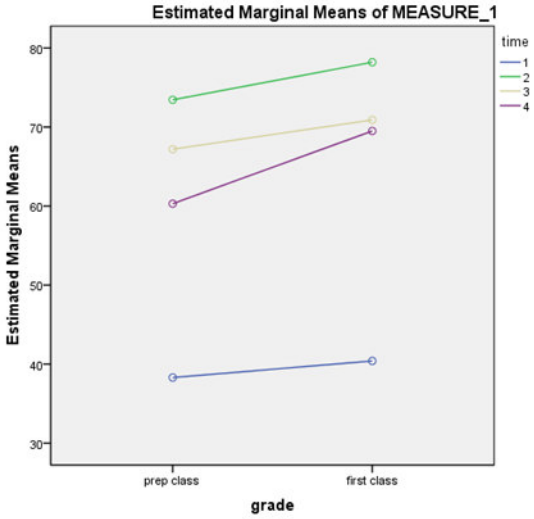


Figure 5: The relationship between time and year

4. Discussion and Conclusion

Bi-lingual competence is an indispensible constituent of translation competence as it is also considered a multi-componential concept in literature. The purpose of the study was to see whether the OMLEC platform was effective in developing bi-lingual skills for translation and language learning through collocations in an online multimedia supported learning environment. Learners' knowledge of collocations was assessed with four different tests (diagnostic, study, achievement and summative tests scores). In order to do this, students took a diagnostic test when they first signed up for the platform. Besides, after studying every set, they took a study test about the collocations learned at that specific set and after every two set they took an achievement test about the related sets. After studying all the 25 sets of collocations, they took a summative test in the same format with the diagnostic test. The results of these tests (diagnostic, study, achievement, summative) were compared and it was seen that the platform had a significant effect on the test scores.

Related literature indicates that collocation instruction is neglected in developing b-lingual skills and foreign language teaching (Chan and Liou, 2005; Nesselhauf and Tschichold, 2002). Therefore, students make mistakes in using collocations. This study indicated that the online multimedia-supported learning environment designed to teach collocations, called "langabc", helped students increase their knowledge of collocations. Studies conducted by Lin (2002), Tseng (2002), Sun and Wang (2003) and Chan and Liou (2005) also stated that explicit online collocation instruction positively affected learners' performance. Firstly, when we looked at the test scores, it was seen that the mean score of the diagnostic test was lower than the other test scores. The mean difference between the diagnostic and the summative test score was 25 and 55 respectively, indicating that the platform was effective in teaching collocations and students' knowledge of collocations was enhanced via the OMLEC platform "langabc". In addition, it was seen that the highest mean score was the study test. The probable reason might be that the study test were taken immediately after studying the related collocation set and it might have had an positive effect on remembering the collocations. The achievement test score was again higher than the diagnostic and the summative test scores, but slightly lower than the study test scores. As the achievement tests were taken after every two sets and included the collocations of the related two sets, they were more challenging than the study tests. Learners' degree of retention decreased in the achievement tests compared to the study tests. Therefore, their mean scores were lower than the study tests. The result of the summative test indicated that learners' final performances were better than their entry level even if it was lower than the study and achievement tests. In addition to the memory effect, the number of collocations that the tests included was also effective in the results obtained. For the study tests, the learners were responsible for 20 collocations; for achievement tests, it was 40 collocations; and for the diagnostic and summative tests, it was 500 collocations. As the number of collocations increased, the scores of the learners decreased. Secondly, the results indicated that the element of year was not statistically significant on the test scores. No significant difference was seen between the test scores of the students in the preparatory class and the first year. Also, no relationship was found between time and year. Learners' scores in four tests (diagnostic, study, achievement and summative) did not change with respect to the class level (preparatory and first year). As the platform presented collocations step by step with

visual and audial cues, the students in both groups might have found it easier to learn them in a similar way. This relationship can also be thought of as an indication of the reliability of the tests. Overall, it was seen that the online OMLEC platform "langabc" improved learners' knowledge of collocations to a great extent after a one-month explicit instruction.

It can be suggested that the mastery of a language through collocations be enhanced by reading texts in order to arrive at contextual meaning, which is essential for translators as well as learners of languages. Çer and Şahin also contend that texts should be appropriate for learners as they progress (2016). What they have in mind is children in particular. However, this can be generalized to include adults, too. As a suggestion for future studies, this study can be replicated for higher levels and with different online platforms teaching collocations like langabc to investigate the effectiveness of online explicit collocation teaching. Also, an in-depth qualitative study which explores and describes the feelings of participants towards online multimedia supported learning environments to teach collocations in English might be conducted.

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