The Impact of Teaching Formulaic Sequences on Improving the Writing Skills of Freshman Students at an American University in the Middle East

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According to the rules of the Ministry of Higher Education in the United Arab Emirates, all students who desire to learn in any university must pass one of the standardized language tests to start their undergraduate studies. In the teaching context where the study took place, the majority of students struggle to score a 6.5 in the writing part of the IELTS exam, or 5 in the TOEFL test. The students' main weakness lies in their inability to develop their writing further; they struggle to expand on a sub-topic in the writing exam. The students' never-ending struggle to improve in writing; is because they tend to memorize the word without trying to study its different aspects, for example, what part of speech the word is or its collections. Accordingly, the study proposed the integration of the formulaic sequences to help them learn the different aspects of a word.

Keywords: formulaic sequences, phraseology, second language acquisition, writing skills

LITERATURE REVIEW

The research on vocabulary acquisition focuses on the importance of understanding what it means to know a word. Vocabulary acquisition is a somewhat complicated process and involves different levels of knowledge (Meara, 1990). Understanding the concept of any word is considered a crucial step in vocabulary learning, as it determines the appropriate tools and procedures for the educators to use to assess learners' vocabulary knowledge (Bogaard, 2000). Lexical knowledge varies from simply recognising the meaning of a new word to being able to use it effectively in any given discourse (Laufer & Paribakht,1998). According to Laufer and Nation (1995), if the teaching methods do not help the learners to use vocabulary successfully, then these methods should be re-evaluated.

There has been a growing interest toward the significance of formulaic sequences in vocabulary acquisition (see Meara, 1987, 1992, 2013). Before conducting any study that involves formulaic sequences, it is crucial to briefly review the attempts of linguists over the years to investigate the proportion of these sequences in the English language. Erman and Warren (2000) analysed a language sample in an attempt to find the significance of formulaic sequences in discourse. They found that formulaic sequences form 58.6% of spoken English discourse and 52.3% of written discourse. In another study, Fosters (2001) estimates that 32.3% of unplanned native speech is composed of formulaic language.

As early as the 1980s, a number of linguists reasoned against the Chomskyan approach, which proposed that any natural language is the outcome of a set of countless utterances that are mostly generated from a

set of grammatical structures (Pawley & Syder, 1983). According to Barlow (2000), Liu and Huo (2011), and Wray (2000), language users are consistently inclined to use particular words in their language production more than the trouble of forming complicated grammar structure that could express the same concept. The expanding interest in what is known as the formulaicity of language production is linked to the growing emphasis on new linguistic theories that focus on performance rather than on competence in itself. This interest emphasizes the substantial role of formulaic sequences in language production (Al Hassan & Wood, 2015).

Formulaic Sequences

It is far from possible to have one exact definition of formulaic sequences. In fact, Wray (2002) proposed that more than 50 valid definitions exist. The term formulaic sequence covers a whole diversity of language expressions, from the obvious idioms and proverbs, to collocations and ready-made chunks of expressions. These sequences function as one unit of language expression even though they are composed of multiple words. It should be noted that the present study investigated the effect of word formulas, such as 'on the basis of' and 'in the absence of', rather than idioms or proverbs, on the writing proficiency of intermediate students. A list of all formulas is provided in the research methodology section. Wray (2002) argues that formulaic sequences are sequences of ready-made chunks of language expressions. He further posited that once they are mastered, they could be easily recalled from memory without being subject to any grammatical rules or structure. On the other hand, researchers continue to argue that learning any lexeme takes time, comes gradually, and leads to various challenges, and that there is no reason to think that learning formulaic sequences is any easier (Schmitt, 2000; Nation 1990). Despite many linguists' continuous reminders on the importance of integrating more formulaic sequence materials into the teaching materials of English as a second language, the debate on the effectiveness of teaching these sequences continues. In the following section, the researcher discusses some studies that have examined the question of whether formulaic sequences are acquired holistically and continue to be an effective tool in expediting the process of learning an L2, or whether they are acquired incrementally like any other lexeme in the English vocabulary.

The Need to Teach Formulaic Sequences to Improve Writing Skills

Formulaic sequences form a fundamental part of the English vocabulary (e.g., Martinez & Schmitt, 2012); they are looked upon as an essential element of how English language is obtained (e.g., Alali& Schmitt, 2012; Wood, 2002). The advantages of teaching formulaic sequences have been the subject of many recent studies. (e.g., Durrant, 2008; Wray, 2000). For instance, based on some empirical studies, Martinez and Schmitt (2012) noted some key advantages of formulaic sequences: (1) they compose a large percentage of the English discourse whether written or spoken (e.g. 58.6% of speaking discourse and 52.3% of writing discourse; Erman and Warren (2000); (2) they can facilitate the communication of many expressions (e.g., Conklin and Schmitt, 2008; Jiang and Nekrasova, 2007); and (3) they enable learners to produce language successfully by providing chunks of expressions (e.g., Guz, 2014). For all the above reasons, researchers are encouraged to pursue their investigation of better ways to integrate more formulaic sequences in classroom materials to promote more effective techniques of teaching English as a second/foreign language.

The significant results of many empirical studies in First native language (L1) discourse encourage educators to consider formulaic sequences as a very promising tool that might promote better and effective methods of teaching English as a second/foreign language (Boers & Lindstromberg, 2009; Jones & Haywood, 2004; Schmitt & Underwood, 2004). Linguists in the field of language acquisition advocate that teaching formulaic sequences to L2 learners might enable them to grasp the new language quickly and hence lead to more successful language production (Fitzpatrick, 2005; Osborne, 2008; Wood, 2000; Wray, 2002).

In addition, researchers have proposed that formulaic sequences should be considered as an effective tool in teaching academic writing, especially for L2 learners who experience difficulty in expressing themselves in writing (Hyland, 2003, 2006; Leki, 2006; Reppen, 2002; Silva, 1993). The significance of

formulaic sequences in validating English written skills can be attributed the fact that teachers provide L2 learners with lists of formulas that they can use in their writing, and researchers argue that this practice helps learners to be proficient writers (Coxhead & Byrd,2007; Martinez & Schmitt, 2012). Lewis (1997) explains that through frequent exposure to these lists and some more practice, L2 learners tend to use these expressions in their academic prose (cited in Al Hassan & Wood, 2015).

The Rationale of the Study

With the growing interest in formulaic sequences, researchers have endeavoured to verify the key features that could define this language phenomenon. Although it is difficult to come up with one definition, it has been agreed that formulaic sequences can be seen ready-made utterances of language that are stowed and withdrawn from memory as single entities (Arnaud, Ferragne, Lewis, & Maniez, 2008; Chen, 2009; Conklin & Schmitt, 2008; Pawley & Syder, 1983; Sinclair, 1991; Tremblay & Baayen, 2010; Wood, 2001, 2006).

Apart from the various attempts to agree on a clear definition of formulaic sequences, research continues to investigate the effectiveness of teaching formulaic sequences on second language acquisition. In this regard, many linguists have engaged in research to investigate the impact of teaching formulaic sequences on improving the language proficiency with a focus on writing. In an attempt to confirm the importance of teaching formulaic sequences, there was a study that investigated the effect of the comprehensible teaching of formulaic sequences in pre-writing vocabulary activities on in the writing classes of English as a foreign language. The study was conducted in Saudi Arabia with 81 Saudi pre-intermediate English as foreign language students. The study lasted 10 weeks and used a pre-test/post-test design. Furthermore, the results verified that the direct formulaic sequence teaching in pre-writing activities had a positive impact on the students' ability to produce correct written sentences. This finding corroborates the increasing demands in texts (e.g., Xu & Zhang, 2015; Alali &Schmitt, 2012; Erman &Warren, 2000) for more teaching of formulaic sequences in writing classes. Moreover, the aforementioned study indicated that students of English as a foreign language are sometimes incapable of producing a written sentence in the correct order, which shows how teaching ready-made chunks of formulaic sequences could help them in effectively producing sound, well-structured sentences (El-Dakhs and el, 2017).

Another study investigated the efficiency of clear instruction of formulaic sequences in improving the academic writing of Intermediate level of English as foreign language students in Ottawa, Canada. One of the findings of the study was that formulaic sequences could be considered some sort of safety zones on which the learners always incline to depend on when forming their English sentences, to lessen their grammatical errors and converse efficiently in the target language (Boers et al., 2006; Boers & Lindstromberg, 2009; Hill, 2000; Lewis, 2000b; Nattinger & DeCarrico, 1992;) The findings from this study confirmed the participants' tendency to use formulaic sequences in writing their English sentences. Furthermore, some of the sentences that were developed by the students after the period of the study correspond with what Lewis (1997) calls as a chunking process, in which the learner writes a whole sentence by putting together some formulaic sequences. The authors of the study verified that sentences were formed in this way in several texts, regardless of the participants' proficiency level (Al Hassan & Wood, 2015).

It is worth noting that studies (e.g., Boers & Lindstromberg, 2012) that have tested the significance of formulaic language on coherence verify that the use of formulaic language helps students to express themselves successfully and produce coherent and precise texts. Furthermore, the precision provided by the use of these formulaic sequences might be the result of the successful processing of the formulaic sequences, which leads to the constructive development of fluency in the students' productive skills.

However, there is a lack of research investigating the effect of teaching formulaic sequences on enhancing the language proficiency of Arabic speaking students in the United Arab Emirates or the Middle East. The vocabulary programme was proposed to bridge the gap in the research in my current teaching context.

Research Question

1- Does the teaching of formulaic sequences help to improve Freshman students' writing?

Theoretical Framework of the Study

This study adopted the scientific paradigm, which is used in the physical sciences and experimental psychology. The scientific paradigm is primarily concerned with objectivity and discovery of scientific generalisation that describes the subject of the study. This paradigm focuses on the use of quantitative data, which is why it employs experimental methods. The scientific paradigm has been used because it aims to generalise laws, which could lead to more development in the educational process. In this field, the scientific paradigm tests classroom and learner variables and seeks to associate them with educational/learning outcomes (Ernest, 1994)

Research Methodology

The researcher of this study implemented an intervention study methodology, which is usually used in experimental study designs. In the interventional study, I applied an intervention vocabulary programme that focused on teaching formulaic sequences instead of the words on the Academic Word List. Due to their vital role in competent English language production, many linguists have indicated that formulaic sequences should be a major component of classroom materials (Li & Schmitt, 2009; Nation & Newton, 1997; Nattinger & DeCarrico, 1992; Sinclair, 1991).

It has been also suggested that teachers should be selective in their choice of the target formulaic sequences based on their students' level (Boers & Lindstromberg, 2009; Lewis, 1997). The Academic Formulas List, which was assembled by Simpson -Vlach and Elias (2010), is divided into a written core and a spoken core. The researcher chose to gather the Academic Formulas List from the written core since the pilot study focused on investigating the effect of teaching formulaic language on the improvement of intermediate-level students' writing.

The 60 formulaic sequences below, which were adopted from Simpson -Vlach and Nick (2010), were taught in the intervention over a period of four weeks. The class met twice a week for two hours. Every week, 20 new formulas were given to the class. There was always a revision session at the beginning of every class where they recalled and revised the previously taught formulas.

Group A: Referential expressions:

An attempt to	in accordance with	in the course of
Are/was based on	in such a way that	In the form of
Depend on	in the absence of	there are no
On the basis of	in terms of	there are several
With regard to	in this case of	in a number of
In terms of	degree to which	in some cases
Be related to	it has been	this does not
Which can be	does not have	this means that
Is more likely	on the other hand	the difference between
At the end of this point	at this stage	to distinguish between

Group B: Stance Expressions:

Appear(s) to be	Are likely to	As a whole
Assumed to	Be argued that	Be explained by
Be regarded as	Been shown that	If they are
Is determined by	We have seen	Take in account
Can be achieved	Most likely to	Carried out by
Has been used	It should be noted	Take into account
Can be expressed	Can be achieved	Are able to

Group C: Discourse Organizing Functions:

As shown in	Important role	It is necessary
It is obvious that	It is interesting	It is worth
It is difficult	In the present study	As a consequence.

As a result of Due to the fact Is affected
It follows And if you Even though
In conjunction Due to the fact To determine whether

The approach to teaching was based on the claim that there are three psychological processes to successful vocabulary learning: noticing, retrieving, and generating (Nation, 2001). Noticing can occur when a word is highlighted as being noticeable in text input or in a class discussion in the pre-reading task. Looking up a word in a dictionary, guessing from text, deliberately studying the formula, and having the formulas explained are all possible factors that can lead to noticing (Simpson -Vlach & Ellis, 2010). The researcher always started the class by giving the students a checklist to test their knowledge of the formulas that would be taught during the lesson. When the researcher selected the formulas for the study, he/she kept in mind that two important factors for teaching formulas are motivation and interest. He/she tried to select formulas that would be beneficial to the students and help the students later on to better express their ideas in writing.

The first step is for the word to be noticed in the given text, then it has to be understood through clear instruction, the following stage in the process is the retrieval of the taught formula, which can be receptive (i.e., recognising the form of the word and recalling its meaning when learners encounter the word in listening or reading) or productive. A reading passage was always used during the retrieval stage in my class, so that the students could read some of the formulas in context. Finally, the last stage in the process is the productive one, which takes place when a previously encountered word is reproduced one more time but in a different way. Stahl and Vancil (1986, as cited in Nation, 2001) advocates that teachers should encourage discussion at this stage as discussion plays a vital role in building a semantic map which is a crucial stage in building a good vocabulary knowledge.

As previously mentioned, the intervention programme took place over a period of one month. The class twice a week over the period of one month. Every week, 20 new formulas were given to the class. There was always a revision session in the beginning of every class where we recalled and revised the previously taught formulas.

To analyse the results, the pilot study used two different types of pre-test and post-test: a multiple-choice and fill-in-the-blanks pre-test and post-test, and writing pre-test and post-test. The rationale behind designing those types of assessments is to go in line with the input of the classes. As previously mentioned in the teaching approach section, my teaching method in the intervention programme was based on following the process of noticing, retrieving and generating the formulaic sequences. In this regard, the researcher designed the assessment plan to go in line with the input of knowledge. The fill-in-the-blank questions were targeted to assess if the student is capable of retrieving a formula that was encountered in previously taught classes. As for the writing tests, the students were expected to write paragraphs in which they demonstrate their ability to generate some of the formulas in a written context. The rationale of this type of assessment is to assess the ability of the student to incorporate the taught formulas morphologically and grammatically correct in a written context.

Participants

The participants in this study were 14 low-intermediate/high-intermediate students in an intensive English language programme at an American University in the Middle East. The participants were informed of the vocabulary programme through a flyer, which provided the time and location of the class. The participants voluntarily agreed to join the programme to improve their writing skills. Once the participants volunteered, they were given an ethical consent form explaining all the stages of the programme. The sample was self-selected, as the students volunteered to take part in the research. As the researcher, he/she made sure that each member of the population had a fair chance of being involved in the sample. All the participants were asked to suggest a pseudonym for themselves that could be used in writing up the forms.

Ethical Consent

As the researcher, A pre-thesis ethics application form was sent for approval before starting the study or collecting any data. The researcher made sure to give a consent form to every participant with a fair explanation of the procedures to be followed and their purpose to every participant in the study.

Results

This study examined whether the use of formulaic sequences in teaching helps to improve the writing skills of intermediate-level students. Fourteen students were given writing tests (consisting of fill-in-the-blank and multiple-choice questions and writing paragraphs) before and after the teaching of the formulaic sequences.

The quantitative data was statistically analysed using SPSS. Two statistical analyses were conducted. In this paper, the researcher reports the descriptive statistics calculated for the observations and the results of the pre-tests and post-tests.

He/she indicated the inferential statistical test used to examine the hypothesis of the study. The results of the tests were analysed using analysis of variance (Creswell, 2009).

This section describes the analysis of the students' test scores. The study used paired sample t-tests to help determine whether the teaching of formulaic sequences had an effect on the students' results on their writing tests. Paired sample t-tests were used to determine whether the mean difference between paired observations was significantly different from zero. In other words, they were used to test whether the null hypothesis H_0 or the alternative hypothesis H_1 was true. The null hypothesis is that the true mean difference μ_d is equal to zero. The alternative hypothesis is that the true mean difference is non-zero.

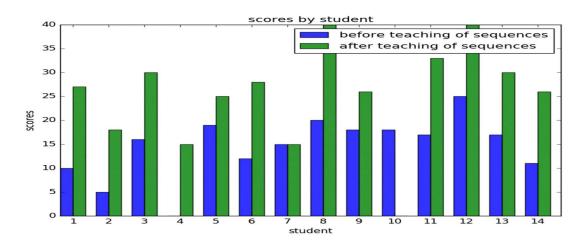
DATA ANALYSIS

Pre-tests and Post-Tests

Analysis of Data in Table 1

Figure 1 shows a bar chart of the students' scores listed in Table 1 before and after the teaching of the sequences. The aim of the multiple-choice questions and fill-in-the-blanks tests was to measure the students' ability to retrieve the formulaic sequences that they had learned over the period of one month. The bar chart shows that overall; the students' scores after the sequences were taught (shown by the green bars) were noticeably higher than the scores before (shown by the blue bars). Indeed, except for one participant, all students' scores were slightly higher after the teaching of the formulaic sequences.

FIGURE 1
BAR CHART SHOWING THE EFFECT OF TEACHING FORMULAIC SEQUENCES ON
TEST SCORES



Analyzing the data presented in Table 1 using the method mentioned in the result section, I found the following results:

We see that the use of formulaic sequences increased the score of each student from 14.5 to 25.2. The standard deviation of the change in score was found to be 9.71, whilst the standard error of the changes was 2.60. Since there were 14 students, there were 13 degrees of freedom when calculating the t statistic, which came out as 4.13. If we assume that the null hypothesis H_0 is that the true mean difference between the scores is zero (i.e. that teaching of formulaic sequences had no effect), we can calculate the probability p of observing t = 4.13 under H_0 . For a two-tailed test p = 2 * P(T > |t|), and we find $P(T \le 4.12669) = 0.9994$, therefore p = 2 * (1 - 0.9994) = 0.0012. Therefore, the probability of observing these results under the null hypothesis (that the true mean difference between the samples is zero) is 0.12%.

These results show that the teaching of formulaic sequences lead to some sort of increase in the average scores of intermediate level students enrolled in the intervention program.

The following table 1 contains the data collected from students in tests administered before and after teaching of formulaic sequences. Since the sample size was fairly small, data was obtained by manual inspection of the written work produced by students.

TABLE 1
SCORES OF STUDENTS IN MULTIPLE CHOICE AND FILL IN THE BLANK TESTS
BEFORE AND AFTER THE TEACHING OF FORMULAIC SEQUENCES

student	score before teaching of sequences	score after teaching of sequences
1	10	27
2	5	18
3	16	30
4	0	15
5	19	25
6	12	28
7	15	15
8	20	40
9	18	26
10	18	0
11	17	33
12	25	40
13	17	30
14	11	26
total	203	353

average score before	14.5
average score after	25.2
s.d. of differences	9.71
s.e. of differences	2.60
value of <i>t</i> statistic	4.13

Data in Table 2 shows a breakdown of results of written tests taken before and after a 1-month period in which 60 formulaic sequences were taught. The table shows the number of formulaic sequences used by each student, the number of correct phrases in which the sequences were used, the number of sequences used with incorrect morphology and finally the number of sequences used with incorrect grammar.

TABLE 2
RESULTS OF WRITTEN TESTS BEFORE AND AFTER THE TEACHING OF FORMULAIC SEQUENCES

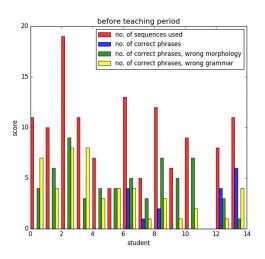
t no. of correct no. of correct phrases but wrong phrases but wrong grammatically in grammatically in pre-test post-test	2 & & & & & 4 + 1 & 1 + 2 + 0 + 1 & 1 + 2 + 0 + 1 & 1 + 1 & 1 & 1 & 1 & 1 & 1 & 1 & 1
no. of correct phrases but wrong morphology in post-test	8 8 6 6 7 8 6 4 4 8 9 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9
no. of correct phrases but wrong morphology in pre-test	4 9 0 K 4 4 K K L K L 0 K L
no. of correct formulas in post-test	12 5 5 6 6 0 0 0 0 0 0 7 7 7 8 5 8 6 6 6 6 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8
no. of correct formulas in pre-test	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
no. of formulas used by student in post -test	20 15 18 18 10 10 11 0 10 15 11 17
no. of formulas used by student in pre-test	11 10 19 77 77 13 5 6 9 0 0
student	1

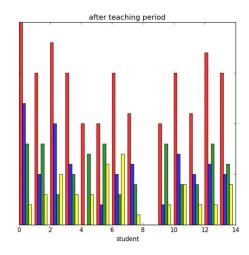
Figures 2 shows bar charts displaying the data from Table 2. Data from the second through fifth columns of the table is shown as different color bars: red for column 2, blue for column 3, green for column 4 and yellow for column 5.

Figure 2: Bar charts showing the number of formulaic sequences used, the number of correct phrases, the number of correct phrases with morphological problems and the number of correct phrases with grammatical problems from before the teaching period (left hand chart) and after the teaching period (right hand chart).

The most obvious features of the data displayed in Fig. 2 are the zero scores recorded for student 12 before the teaching period and student 9 after the teaching period. These two results could therefore be considered outliers in their respective data sets. We can also see that the number of formulaic sequences used by most students (red bars) has increased after the teaching period, along with the number of correct phrases (blue bars). This is reflected in the mean values: before the teaching period the students used an average of 9 formulaic sequences each, compared to 13 each after the teaching period. The mean number of correct phrases in which the sequences were used rose from 1.2 before the teaching period to 5.4 after.

FIGURE 2 SCORES OF THE STUDENTS BEFORE AND AFTER TEACHING FORMULAIC SEQUENCES





Discussion

This study aimed to examine the effect of teaching formulaic sequences on improving the writing of low-/high-intermediate-level students. It should be noted that during the course of the study. It became obvious that the word 'improve' might be too much to ask from a small-scale study that took place over the period of one month. Instead, the word 'upgrade' became more suitable than 'improve'.

Although the data shows that there is some improvement in the students' post-tests, it is dangerous to generalise the findings of this study for many factors. One of the significant factors is the lack of the control group; another one could be the small size of the class, which might allow the students to work closely or practice the formulas more with the teacher. It is also worth mentioning that there is no clear explanation for what motivated the students to use the formulas. It is crucial to consider investigating further the real intentions of why the students decided to use the formulas in their post-tests. Some of the above factors were not tested or investigated accurately which make it difficult to confirm that the teaching of the formulas had a direct relationship to the slight improvement of the writing skill of the intermediate students who were subject to this study.

To add on, the researcher cannot adequately ensure that the students who participated in my study will use formulaic sequences in the next few months in their writing. The results of the post-tests demonstrated that some students were able to use some of the formulaic sequences correctly, which goes in parallel with some studies that advocated the need to direct and explicit instruction of formulaic sequences to improve

the writing ability of students. Yang and sun (2012) investigated the positive impact of teaching formulaic sequences on the writing abilities of EFL learners. In the course of their study, they analysed the writing of undergraduate students to find out the impact of teaching formulaic sequences on their writing ability. They found out that there is a strong relationship between the explicit use of the formulaic sequences and the improvement of the quality of the students writing. In a recent study, Baghestani and Baradaran (2018) conducted a study to investigate the effect of teaching formulaic language on field-dependent versus field-independent in English as a Foreign language (EFL)learners writing ability. Based on the results of the learners' writing scores, they confirmed that the formulaic language teaching could be considered an adequate teaching approach to improve the EFL learners' writing ability of field-independent learners more than field-dependent ones. By comparing the findings of my current study with the studies mentioned above, It is a bit rushed to fully confirm that formulaic sequences lead to improvement in writing in the current teaching context. The effect of the instruction of formulaic sequences should be examined over a more extended period to ensure that the knowledge of these sequences is acquired and leads to improvement in language proficiency, whether written or spoken.

Limitations of the Study

There are some limitations of this recent study, which suggest that the results should be dealt with carefulness. First, there is the risk of research bias, as I taught the programme. The disadvantage of research bias could simply be any error that could take place in sampling or testing. Research bias befalls at any point of research, for an example from the study design or data collection, to the process of data analysis and reporting the results.

In the <u>study, I, the researcher, took</u> all the required measures to reduce research bias. However, it would have been better if another teacher had taught some of the classes. I wanted to train one of the teachers to do this, but unfortunately this was not possible due to the regulations of my place of work. The university where the study took place prohibits anyone from working for a short period of time.

Second, there was limited time available to conduct this research; the formulaic sequences intervention occurred over a period of four weeks only. Although there was a substantial improvement in the students' use of formulaic language and overall writing performance after the intervention, it would have been beneficial for the study if the time frame for the intervention period had taken place over a longer period of time.

Third, a noteworthy limitation is that there was no control or treatment group. The researcher considers this to be one of the major limitations of my small-scale study because in any experiment, any researcher must measure one variable at a time, and using a scientific control group helps to produce reliable data. The lack of control group affects the internal and external validity of the research.

Recommendation for Further Studies

This pilot study should pave the way for future study, which will investigate the significance of teaching formulaic sequences on upgrading (productive) speaking and writing skills of students in a bridge program at an American university in the Middle East.

The study will take place over two academic semesters to thoroughly examine the effect of teaching formulaic sequences on upgrading students' productive language skills.

ACKNOWLEDGEMENT

©2020 American Society for Engineering Education. ASEE Annual Conference Proceedings, June 2020, Virtual Conference

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