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INTERVAL REPETITION AS AN EFFECTIVE METHOD OF LEARNING NEW VOCABULARY

Abstract. The twenty-first century is a century of information technology, globalization, global political, economic, religious and cultural integration. In this regard, English is the language of the whole world, and the number of English language learners is also increasing. English teachers have also been looking for teaching methods that are suitable for modern learners for many years. In this line, the current research work is aimed to identify the effectiveness of the interval repetition method on EFL learners' vocabulary learning and compare the results of students using the interval repetition method and the traditional method in individual learning. In the research work, quantitative and qualitative methods were used, and an experiment was conducted. The study was conducted with the samples selected from 34 students both female and male gender. As a result of the study, there was a positive result in learning new vocabulary using the method of interval repetition among EFL learners in individual lessons, and an increase in the progress of learning the language among learners. The article shows that using this method is much more effective than learning new words using the traditional method. As a result of the study revealed the effectiveness of the interval repetition method in learning new vocabulary, the author recommended English teachers use this method in the teaching process.

Keywords: English language, interval repetition, traditional method, effectiveness, individual lesson.

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Аралық қайталау әдісін жаңа сөздерді үйренудің тиімді әдісі ретінде қолдану

Аңдатпа. Жиырма бірінші ғасыр – ақпараттық технологиялар, жаһандану, дүниежүзілік саяси, экономикалық, діни интеграция ғасыры. Осыған орай ағылшын тілі бүкіл әлемнің тілі ретінде қарастырылып, ағылшын тілін үйренушілер саны артып келеді. Ағылшын тілі мұғалімдері де бірнеше жылдар бойы қазіргі үйренушілерге сәйкес келетін

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оқыту әдістерін іздеуде. Осы орайда, аталмыш зерттеу жұмысы аралық қайталау әдісі мен дәстүрлі әдістерді қолдана отырып, жеке сабақтарда жаңа лексиканы үйренушілердің нәтижелерін салыстыруға бағытталған. Зерттеу жұмысында сандық және сапалық әдістер қолданылып, бақылау эксперименті жүргізілген. Тәжірибелік оқытуда 34 ер және әйел адам қатысты. Зерттеу нәтижесінде жеке сабақтарда ағылшын тілін үйренушілер арасында аралық қайталау әдісін қолдана отырып жаңа сөздерді үйрену оң нәтижесін беріп, үйренушілердің тілді үйрену үлгерімі артқаны байқалады. Мақалада бұл әдісті қолдану дәстүрлі әдісті қолдану арқылы тілді үйренуге қарағанда әлдеқайда тиімді екені көрсетілген. Зерттеу нәтижесінде аралық қайталау әдісінің жаңа сөздерді үйренуде тиімділігі анықталғандықтан, ағылшын тілі оқытушыларына бұл әдісті білім беру барысында қолдану ұсынылады.

Кілт сөздер: ағылшын тілі, аралық қайталау, дәстүрлі әдіс, тиімділік, жеке сабақтар.

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Интервальное повторение как эффективный метод изучения новой лексики

Аннотация. Двадцать первый век – это век информационных технологий, глобализации, глобальной политической, экономической, религиозной и культурной интеграции. В связи с этим английский язык является языком всего мира, и число изучающих английский язык также растет. Учителя английского языка также уже много лет ищут методы обучения, подходящие для современных учащихся. В связи с этим текущая исследовательская работа направлена на сравнение результатов изучения новой лексики с использованием метода промежуточного повторения и традиционных методов на индивидуальных уроках. В исследовательской работе использовались количественные и качественные методы, а также был проведен контрольный эксперимент. В процессе экспериментального обучения приняли участие 34 человек как женского, так и мужского пола. В результате исследования был получен положительный результат изучения новых слов с использованием метода интервального повторения среди изучающих английский язык на индивидуальных уроках. В статье показано, что использование этого метода гораздо эффективнее, чем изучение языка традиционным методом. Поскольку в результате исследования была определена эффективность метода интервального повторения при изучении новых слов, рекомендуется использовать этот метод в процессе обучения учителям английского языка.

Ключевые слова: английский язык, интервальное повторение, традиционный метод, эффективность, индивидуальный урок.

Introduction

“Today, in the era of globalization, a person who knows many languages occupies a special place in society. We all know that learning foreign a language, mastering them perfectly, first of all, occupies a special role in international relations, because language lives and develops together with the people. “We are accelerating the pace of development of trilingualism”. This is not fiction, but a necessity. Already 20 percent of Kazakhstan citizens speak English. That is, speaking three languages is a ticket to the global world. This is the principle of success, the success of a person in life. In the global world, our children become “citizens of the planet”. Therefore, they can work and develop themselves anywhere in the world. This means that in today's difficult world our children

should feel like a “fish on the water”, and we create conditions for this, said our first President N.A. Nazarbayev in his message. In this regard, every teacher with the goal of providing a quality education should support and develop the student's interest in English learning and select the effective methods of teaching, supporting the message of the first president [1].

Learning foreign languages is impossible without a constant expansion of vocabulary. There are different ways to memorize words: from traditional reading and multiple repetitions to making associative series and illustrations. Also, one of the methods of remembering a large amount of data is the interval repetition. The essence of this method is that the information is repeated at certain intervals, and each time to refer to this information when it has already been practically forgotten.

People have been asking questions about effective memorization of information for a long time. In 1885, the German scientist Ebbinghaus formulated the theory of the forgetting curve, which shows how long a person keeps new information in his memory. The scientist conducted an experiment for his students where they memorized various words on different topics. Herman Ebbinghaus observed how much this information is remembered in a person's memory and he found that within the first hour up to 50% of all the information received is forgotten. He stated that the restoration of already memorized material in memory is faster than memorizing a new one. Then in 1967, linguist Paul Pimsler developed a language learning system and called it interval repetition. He was one of the first scientists who applied the theory of Ebbinghaus in practice. Paul Pimsleur designed a forgetting graph based on observations of students' academic performance and developed a system for effective memorization of new material. According to the Pimsler method, students should repeat the information 11 times with a certain time interval [2].

This article aims to identify the effectiveness of the interval repetition method on EFL learners' vocabulary learning. Therefore, the study addresses the following research questions:

(1) Does the interval repetition method have any significant effects on EFL learners' vocabulary knowledge?

(2) Are there any differences between EFL learners' results learning through the interval repetition method and the traditional method?

Learning foreign languages is not a difficult task if you use an effective method of memorizing new vocabulary. Some of them are the audiolingual method where students listened to texts and dialogues and repeated after the audio recording, the lexical approach where students study words in the form of stable expressions and also the grammar-translation method is based on the study of grammar. Nevertheless, all teaching methods are aimed at actively expanding the vocabulary, since words are the basis for learning any foreign language [3, 4].

The German scientist Ebbinghaus was interested in the properties of human memory. He created a forgetting curve where it is shown that the most loss of information occurs almost immediately after memorization. Ebbinghaus determined that in order to memorize the required amount of materials, you need to repeat with a certain time interval. [2]. Following the discovery of Ebbinghaus, many researchers such as Paul Pimsleur and Sebastian Leitner created their own intervals of repetition where materials are studied and repeated according to a certain interval pattern. [5]. In addition, intervals between repetitions of words vary in different works, but in each of these works, the interval between repetitions of words increases with the number of repetitions. In most cases, the first interval after repeating material is calculated in hours, slowly increasing to several weeks [6, 7].

Today, the availability of computers and smartphones allows you to download the desired program and train vocabulary at any convenient time [8]. At the moment, there are a huge number of applications that use the interval repetition method and which can be integrated into the learning process. Among such mobile applications developed over the interval repetition method, Duolingo Anki, Memrise, and others can be noted [9].

Anki is an open multi-platform program for memorizing words based on the method of interval repetition. The main value of Anki is that with its help you can remember new vocabulary

for a long time [10]. If the same word comes across the next day, then it will surely be recognized and remembered a little better. When the words are fixed in the vocabulary, the interval between repetitions can be increased even more [11].

Memrise is an online application for educational purposes to learn new words. Learners can use this tool to learn new vocabulary, grammar, and spelling at any time through their mobile devices. This platform is focused primarily on memorizing words and expressions that is studied and is based on the method of interval repetition. The Memrise application is a tool that helps you to facilitate the study of any foreign languages extremely effectively and can be integrated into an educational program [12].

Several types of researches were conducted to identify the effectiveness of the interval repetition method and find the perceptions of teachers and learners [11; 13; 14]. Ahmaian [15] and his colleagues conducted a research study, where they found the attitudes of teachers and students through the interval repetition method. According to researchers used task repetition where learners repeated the same task after a week. After completing the tasks both teachers and students participated in interviews where they were asked about their feelings, beliefs and perceptions regarding the interval repetition method. The result revealed that learners had positive attitudes towards learning through this method. They felt more confident, more fluent, and motivated during the lessons. In addition, the teachers also claimed that using the interval repetition method facilitated the learning process and showed better results. Similarly, in the next study authors explored the perceptions of students of interval repetition. Most participants stated that utilizing the interval repetition method made them remember words better and store more information. Also, they answered that their vocabulary knowledge was improved and they learn quicker through the interval repetition method. Overall results showed participants had positive attitudes. The students found learning new words through this method more enjoyable and interesting [16].

Traditional teaching methods are still commonly used in many universities, colleges and schools. The teacher manages the learning process and thus finds himself at the center of the whole process. In addition, the teaching process takes place according to the textbook [17]. In such classes, the teacher's communication with students is carried out in the form of control papers and tests. Traditional methods are aimed at mastering and reproducing a certain amount of knowledge. This method is relevant when working to expand vocabulary and comprehend grammatical material, but is not effective in the formation of communicative competence [18].

Research methods

In achieving the objectives of this study, a mixed-method, which includes quantitative and qualitative approaches, was used to collect the necessary data. The results need to be considered from different perspectives to find answers to the research questions. Since the qualitative method is best for describing, interpreting, and collecting an in-depth understanding of specific content or phenomena the researcher found it appropriate to use in the study for several reasons. Firstly, by using this approach researcher could create a non-threatening free environment for the participants so that they could freely share their feelings, emotions, and thoughts. Second, the participants contributed to provide answers to the questions Why? and How? in order to gain the missing information, thereby helping the researchers. Third, it gives independence to participants to share their views because they are not influenced by other people. A quantitative method, in turn, is advantageous as well. This approach is best for gathering data in numerical form to measure and categorize the data collected, and to make predictions and generalizations so that the researchers are able to gain accurate data. Also, it allowed the researcher to measure answers and to demonstrate them in statistics.

Primary qualitative and quantitative data were examined through experiments and short interview. Since experiments were conducted, so, there were pre-and post-tests. In order to gain a better insight into the possibilities for improving the results of the study, questions for an interview

were adapted. Moreover, it aimed to fill uncovered perceptions and opinions of the participants. This interview was conducted via WhatsApp and the responses were received in written form.

At initial stage of the study, the researcher used an Online English level test by British Council to identify the current level of the participants. The online test consists of 25 multiple-choice questions to assess grammar, vocabulary, and phrasing levels. The link was sent via WhatsApp and the results were demonstrated in an Excel Sheet so that it is convenient for making the statistics effortlessly. The researcher designed pre-test and post-test to identify the effectiveness of the interval repetition method. The pre-test was given to participants to determine the knowledge of vocabulary that would be taught, and the same questions were used in the post-test to identify their knowledge after classes. The pre-test and post-test were conducted via WhatsApp and made in Google Forms. Both tests consisted of 60 multiple-choice items with the same questions.

The new words were taught to the experimental groups through the interval repetition method and to the Control Group through the traditional method. The experiment lasted for three weeks. The Focus Group had three lessons lasted 20 minutes, while the Control Group had only one lesson lasted 60 minutes in one week. The researcher created two different classes in Google classroom for two groups and uploaded all materials and tasks there. The video explanation of new words and tasks such as filling the gaps, matching, and writing stories were given on this online platform. The classes were conducted via Zoom. The researcher conducted a post-test each week after the sessions.

The study was conducted with the samples selected from 34 students both female and male gender between the ages of 21 and 25 years old. They were selected randomly. The researcher divided participants into two groups: one group taught by interval repetition method (Focus Group, FG), the second one by traditional method (Control Group, CG).

Results and discussion

The results of an Online English level test by the British Council showed that the proficiency levels of most participants were intermediate and there were two students of upper-intermediate level.

The results of the pre-test and post-test were analyzed in Excel Sheet. As mentioned before pre-test consisted of 60 multiple-choice items were conducted to determine the knowledge of vocabulary that would be taught. The pre-test results of each group are reported in Table 1. Focus Group students scored between 35 (LS, Lowest Score) and 46 (HS, Highest Score), while Control Group students scored between 30 (LS, Lowest Score) and 43 (HS, Highest Score) points. The table below reveals that FG mean score was 40 out of 60 and CG mean score was 38 out of 60. The FG results are slightly higher than CG results. This means that the level of vocabulary proficiency in both groups is almost the same.

Table 1 – Pre-test results

	N	LS	HS	Mean	%
Focus Group	17	35	46	40	66%
Control Group	17	30	43	38	63%

Figure 1 shows the mean score of the post-test of CG and FG. There are compared the results of the weekly conducted post-test. The post-tests consisted of 20 multiple-choice questions. The mean scores of both groups that are demonstrated in the Figure 1 were calculated on the Excel Sheet. This data presents that in Week 1 FG (M=18.8) and CG (M=16), Week 2 FG (M=19) and CG (M=14), Week 3 FG (M=19.5) and CG (M=14.7). Overall, it is seen that the performance of the Focus Group that was taught through interval repetition is higher than the Control Group that had only one class each week. It shows the effectiveness of teaching learners using the interval repetition method.

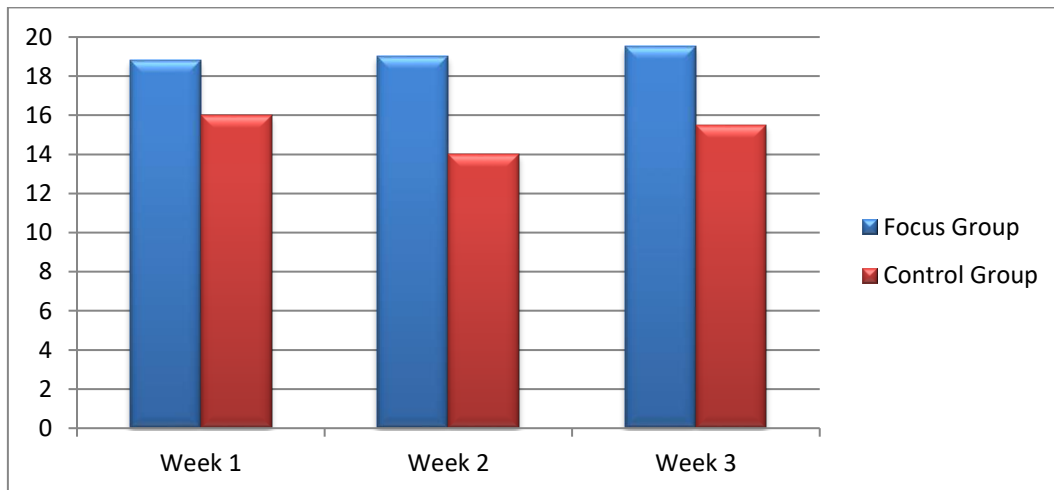


Figure 1 – The weekly mean scores of FG and CG

The final post-test results of each group are reported in Table 2. It consisted of 60 multiple-choice items. Focus Group students scored between 48 (LS, Lowest Score) and 56 (HS, Highest Score), while Control Group students scored between 45 (LS, Lowest Score) and 49 (HS, Highest Score) points. The table below reveals that FG mean score was 55 out of 60 and CG mean score was 48 out of 60. The FG results are slightly higher than CG results. This means that the level of vocabulary proficiency in both groups is almost the same.

Table 2 – Post-test results

	N	LS	HS	Mean	%
Focus Group	17	48	56	55	91%
Control Group	17	45	49	48	80%

Figure 2 below compares the results of post and pre-test of FG and CG. There are presented the mean scores of both groups. These results helped to find the answer to the second research question which is constructed to find the difference in the performance of the Focus Group and Control Group. The post-test result of FG was 55 which is 91% and CG mean score was 48 which is 80%. It is seen that the results of both groups are significantly increased after teaching new vocabulary using both methods. However, the performance of the Focus Group that was taught through interval repetition method was better than the Control Group.

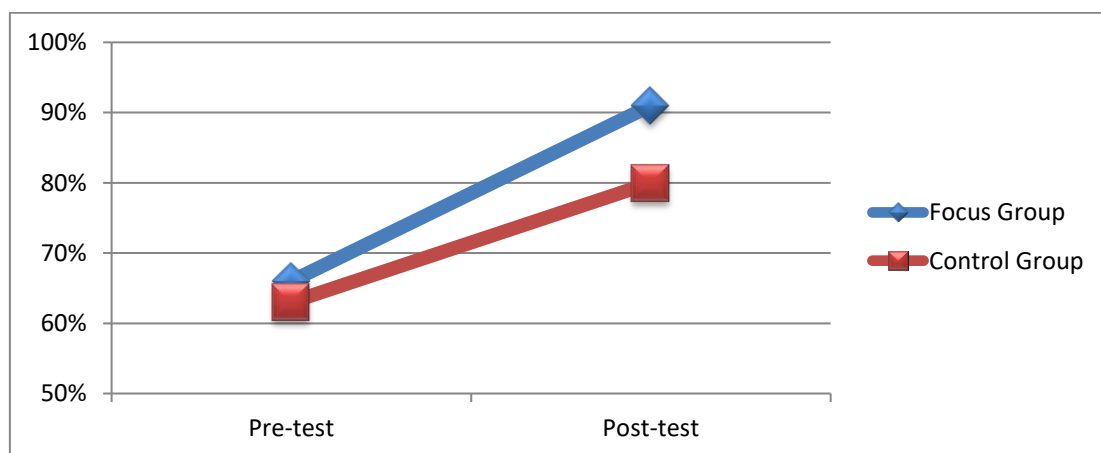


Figure 2 – Pre-test and Post-test mean scores

As Figure 2 shows, the overall knowledge of participants was equally that helped to easily analyze their performance after the post-test. The post-test that was conducted weekly also showed that the Focus Group made more progress than the Control Group. It means that learning new words at different interval times and doing different activities is more productive than doing all these things in one class. The participants (FG) spent less time preparing for the post-test since they repeated these words three times a week.

The overall results of this study indicate that the group taught through interval repetition showed higher achievement than the group taught through the traditional method. The collected data suggested that learning new words using interval repetition is more effective than just learning all words in one class. Consequently, this finding answers the first research question of the effectiveness of the interval repetition method on EFL learners' vocabulary knowledge.

After finishing the experiment the researcher asked the opinions of Focus Group participants about the interval repetition method. The data suggested that most participants have a positive attitude towards this method. They said that using the interval repetition method in their classes made them learn new words easily and remembered more words. The vast majority of participants claimed that the lessons were very interesting and they feel motivated to learn more words. Also, most respondents answered they almost did not prepare for the post-test.

Conclusion

In recent years, the English language has been the subject of concentrated attention. Not only politicians, entrepreneurs, and scientists are engaged in studying different languages, but also completely ordinary people who have an interest in the language. In addition, the demand for English is increasing every day, all this is due to the utilization of the English language in various fields. It should not be forgotten that the knowledge of foreign languages gives great opportunities in the professional activities of people. Therefore, the number of English language learners is increasing every day. Understanding the new material, and its assimilation, makes it possible to apply it in various fields of activity and memorize the necessary data much faster. Therefore, teachers should apply a set of repetitive lessons in their work. Only continuous, systematic inclusion of new knowledge into the system of previous ones can ensure a high level of assimilation of the material.

Overall, this study was conducted to compare the performance of the participants taught through the interval repetition method and the traditional method. Moreover, the research is aimed to identify the effectiveness of the interval repetition method on EFL learners' vocabulary knowledge. Based on a quantitative and qualitative analysis of this study, it can be concluded learning new words using the interval repetition are more effective and productive than using the traditional method. The effectiveness of the interval repetition was identified through the observation and conducting the experiment. The results suggest that interval repetition method can be a valuable technique for teaching and learning new vocabulary of English language. Summing up, it was found that learning through interval repetition method gives the participants the opportunity to remember the learnt words for a long time and gain more information. The Focus group participants noticed their vocabulary improving. In addition, the participants feel more confident and motivated in the classes that use the interval repetition method. Overall, the participants of Focus Group had positive attitudes towards this method.

According to this study, findings are unique for particular students. However, the research with a larger sample size with a slight change in context may provide different results. For that reason, further studies should take into account to expand the number of participants and include more and various universities.

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