



## **Investigating Vocabulary Teaching to Secondary School Students through Mnemonic Technique**

**Sameena Khatoon**

**National University of Modern Languages (NUML) Islamabad**

**Email: [sameenahdf@yahoo.com](mailto:sameenahdf@yahoo.com)**

---

**Abstract:** *The technique of mnemonics and its implementation helps in remembering the information, which is learnt by the students. Considering the significance of mnemonics, the current study investigated the role of mnemonic method of vocabulary teaching in improving ESL learner's English vocabulary at Secondary level. Classroom action research design was chosen for the current study. Based on the convenient sampling technique, a sample of 38 students were selected from the population of the 9<sup>th</sup> grade students studying at secondary schools at District Mardan. The study followed Pretest-Posttest technique. This study was done in the two cycles to examine the role of keyword mnemonic method of vocabulary teaching in improving ESL learner's English vocabulary at Secondary level. The data was analyzed through statistical analysis techniques. The results of the Cycle1 shown that although the students passed the test as the mean marks of the pre-test were more than 50 percent i.e., 54.34 percent, but the target marks were 65.50 and thus the target marks in the post-test were not achieved, while in order to achieve more accurate results Cycle2 was conducted. While the student's vocabulary in the pre-test of cycle2 was improved to mean score of 65.65 from mean score of 54.34 in cycle1. But when the students were guided through key method mnemonic technique of vocabulary teaching and then the post-test of cycle2 was conducted, then the results shown that the vocabulary of the students was significantly improved as seen in the One Sample t-test. Thus, the result of the analysis shown that keyword mnemonic technique of vocabulary teaching has significant role in improving the English vocabulary of ESL learners studying at secondary schools.*

*Keywords: Mnemonic Technique, Vocabulary Teaching, ESL, Language learning*

---

### **1. Introduction and Background of the study**

The process of successful English language teaching depends on some significant factors. Amongst them the most important is the materials used for the teaching which should be relevant to the level of student, skills of the

students, the teacher who is teaching the material and many other aspects as well. Some skills must be mastered by the students as well [1]. Such skills include the productive as well as the receptive skills. The skills which are included in the receptive include the reading as well as the listening. The skills which are included in the productive include the speaking as well as writing. Thus, for supporting these skills it is extremely important to learn the vocabulary [2]. In English language, the most important aspect to be kept in mind is vocabulary. The skills would be considered meaningless without the vocabulary. As per the researcher [3], communication in the second language cannot be mastered without the usage of good vocabulary which consists of meaningful sentences and the choice of good words and phrases. However, in learning of foreign language the vocabulary is considered the least aspect to look after [4]. The most common obstacle when the vocabulary is to be mastered includes the learning of the words which are to be mastered. One of the problems which hinders in the way of the students when learning a second language is to understand the meanings of the words used. In the classroom, the students still take help from the native language when they are answering the questions to the teacher [5].

For the development of vocabulary there are many techniques involving classrooms presented by [6]. Mnemonics technique can be very effective and easy to be applied. One of the most popular mnemonics is keyword method. It might help the students in making the classrooms a better place and more interesting. This technique helps the students in memorizing the information easily and effectively [7]. This technique is good when it comes to studying the language English. The students would be able to master the technique in a fun and easy way. The new information would be easily retained by the students. It also aids the students in mastering the vocabulary and strengthening it. Thus, most researchers use the technique of mnemonic. A research was conducted [8], in implementing the technique especially the rhyme method in improving the vocabulary of the student. It was shown by the results that the key word technique for the improvement of the vocabulary was successfully enhanced by the understanding of the students when the keywords methods was considered, while the researcher also suggested to examine such role using other types of mnemonic technique like keyword methods. Thus, taking the suggestions of the previous studies and considering the limitation of the research study on role of mnemonic technique in improving vocabulary in context of Pakistan, the current study intends to fill the research gap through investigating the role of keyword mnemonic technique of vocabulary teaching in improving the English vocabulary of ESL learners studying at secondary schools.

## **1.1 Research Objectives**

- To investigate the level of vocabulary skills of ESL learner studying at secondary school.
- To examine the use of keyword mnemonic technique at the tool for vocabulary teaching.
- To investigate that how keyword mnemonic technique of vocabulary teaching improves the English vocabulary of ESL learners studying at secondary schools.

## **1.2 Hypothesis Development**

Based on the above discussion, below hypothesis is developed.

H1: Keyword mnemonic technique of vocabulary teaching has significant role in improving the English vocabulary of ESL learners studying at secondary schools.

H0: Keyword mnemonic technique of vocabulary teaching has no significant role in improving the English vocabulary of ESL learners studying at secondary schools.

## **2. Literature review**

### **2.1 Teaching of English Language as a second Language**

English is considered as lingua franca of world. Most of the countries use the English as their second language. On the other hand, English language as taught as second language in some countries since kindergarten. According to Punchihetti, they do not converse in the language on a regular basis. Newspapers, radio, and television are also exemplifying of mass media that use English as second language. English is still used by major commercial and manufacturing organizations. The vast number of incorporated members of the language group be evidence of social and economic progress [1]. Global language learners had few opportunities to use their English in real-life situations. English is regarded a foreign language in Indonesia, according to Setiyadi. Furthermore, it is stressed in school settings without respect for its use in culture. Furthermore, English as the foreign language student have a poor level of interaction competence. Due to the fact, they only study English in kindergarten. Their capability to communicate in the language on a regular basis is less than that of those who study English as a second language. Students, on the other hand, are supposed to speak in English. The teacher must then do an excellent job of teaching at school and assign tasks so that students can learn English outside of class or the school. In summary, according to the justification, Indonesians use English as the foreign language that is only learned in schools and is not used for correspondence. Furthermore, students are required to have the skill or knowledge of the English that can be thus used for correspondence [8].

### **2.2 Technique of mnemonic**

The mnemonic is regarded as the term that is originated from the ancient Greek mythos, Mnemosyne, which is the Greek Goddess of the memory. Apart from this thus ancient Greeks had known two distinct kinds of memory, one which was inborn or natural and the other one which was artificial, and it is prepared by the technique of mnemonic. In mastering the vocabulary, an important role is being played by memorizing. There are two forms of memory which are known as the short-term recollection and also long-term memory. The short-term recollection has small capacity, and the long term has huge capacity ut it is relatively slow as compared to the short-term memory. Furthermore, as Schmitt explains, the aim of memorizing vocabulary is to move knowledge from short-term memory to the long-term memory device. As a result, when students read, it becomes easier for them to memorize and remember the memories of the most recent material or even the very first material. Since it leads to the comprehension point, the idea of long-term memory may have many meanings. The idea of memorizing vocabulary,

on the other hand, should be interpreted as a subway structure. According to Aitchinson, the mechanism of preserving information in our brain is still connected in some way. Furthermore, finding conceptual lexical elements to the new lexical objects is an effective tool for transferring vocabulary the mastery from the short-term to long-term memory and creating a solid link. Mnemonics emphasizes connecting new knowledge or the vocabulary with the students' old memory or vocabulary, which is derived from the memorizing and linking concepts. Furthermore, Solso defines a mnemonic as a system or tool that uses the verbal or the visual nature to assist the input and enhance the storing and recall of new information. As it is previously said that mnemonic functions by referring to sounds that correspond to the target language, which is named through an auditory connection or imaging by a visual aid, resulting in more meaningful conversation. There are many varieties of mnemonic methods, with the Keyword Method technique being one of the most important and commonly used.

### **2.3 Principle of Mnemonic Techniques**

There are five principles in applying any kind of technique of mnemonics.

1. The condition or prior experience of the pupils, as well as the content that would be learned by the students, is referred to as meaningfulness. In this situation, the teacher must consider the students' very simple backgrounds as well as the purpose of the content being learned in order to establish a relationship and ensure that the students comprehend the physical in a substantive way.
2. Group refers to the tasks of the class. In the classroom, there can be a lot of events. As a result, certain operations should be rationally related to one another in order for the activities to run smoothly.
3. The link that will be applied during the classroom operation raises questions about association. The link here refers to the relationship amid that of the target arguments that will be studied and the basic words, or pegs, or words, or L1 the words, that will serve as material's leader.
4. Visualization is crucial to remembering the mnemonic. Since imagining the circumstance or condition is at the heart of the operation. Visualization, on the other hand, is the technique's fundamental harmonic. As a result, the instructor should exercise caution when performing the visualization phase.
5. The aim of using the mnemonic is to get people's attention and interest. This approach will increase students' attention and interest because it will encourage them to use their creativity and previous experiences.

### **2.4 Empirical Review of Literature**

Communication is the major topic when it comes to learning a language. For communication, one must understand the language which they are delivering also they should be able to understand the message which is being delivered by the speaker. This also means that the listener must have the capability to understand the structures and forms of the linguistics. On the other hand, the structure of language and grammar plays an important role in understanding and delivering the message. Thus, in Pakistan, the teaching of grammar of second foreign language is extremely important, as it is the key of communication in daily learning activities. However, some people might disagree.

Before we can understand or master the grammar or form itself, we must first understand or master vocabulary. We can deliver and comprehend a message, even though it is in a chunk of phrase or sentence, even though we have a limited knowledge of language structure. However, because of the restricted vocabulary, it can be difficult to comprehend or even deliver the letter. [9] Studied about “The Effectiveness of Mnemonics Devices in Learning Vocabulary Learning Process”. She has two research questions, there were (1) Do mnemonics devices enhance the students in learning and memorizing vocabulary? and (2) can mnemonics devices influence the students in their vocabulary learning activity?. In this previous study, it was experimental research. The researcher used observation and test including pre-test and post-test to collect the data. The subject of the study was consisting of 30 participants. According to the data collected from the pre-test and post-test gained from the experimental class, taught vocabulary by using mnemonics devices and without mnemonics devices in analyzing the students’ error in vocabularies, it shared the mean score of pre-test was 73 while the mean score of post-test was 84. The conclusion of this study is teaching vocabulary using mnemonics is effective to help the students. The second previous study came from Gofar (2008). He had study about “Teaching Vocabulary through Mnemonics Devices”. In this study, the researcher used experiment. As a result, teaching vocabulary is crucial and can require special care. Students’ main challenge in studying vocabularies is figuring out how to use and understand them. Students’ vocabulary learning exercises are most often limited to recalling and applying it, as well as finding the match or response to the target words. While memorization is likely to be the most popular method for teachers to teach vocabulary, they often fail to clarify how to do it, making it difficult for students to grasp. This may have been because the exercises focus only on memorization and recall, with little practical application. On the other hand, learners must be exposed to constructive action in order to apply the target vocabulary that they have learned and save them in long-term memory. In a nutshell, the mnemonic method contains the principles used for teaching vocabulary. As the majority of experts believe that memorizing is an important practice. The mnemonic serves the activities by not only inviting students to memories the target words, but also by providing linking activities in which students link the linked words to their background knowledge, making it easier for them to understand the target words. Finally, the students are required to connect the linked words into a simple short storey in which they will be unveiled. Therefore, the implementation of mnemonics is able to improve students’ vocabulary mastery.

### **3. Research Methodology**

#### **3.1 Research Design**

As in this study the aim was to determine the role of mnemonic method of vocabulary teaching in improving ESL learner’s English vocabulary in numerical terms, thus following the classroom action research, quantitative type of the research was followed in this study.

#### **3.2 Research Population and Sample**

The students of 9<sup>th</sup> grade of secondary schools at district Mardan were selected as the study population. This level of the students was chosen as the study intends to investigate mnemonic technique for the vocabulary improvement,

and this level is significant as the students at this level are encouraged to enter in the higher education and to continue the practical life.

### **3.3 Research Procedure**

In this study classroom action research design was used, while the study followed Pretest-Posttest technique which is a model that is designed to examine change in overall behavior or the skills of the experimental group. In Pretest-Posttest technique the individuals are investigated before and then after the experimental manipulation. This study was done in the two cycles to examine the role of keyword mnemonic method of vocabulary teaching in improving ESL learner's English vocabulary at Secondary level. The reason for conducting two cycles was to remove the weaknesses of the activities. Each cycle consisted of three main activities. In first activity, the pre-test was conducted before explaining the material. Then in the second activity, the material was explained to the students based on the keyword mnemonic method of vocabulary teaching. Then in the third activity the post-test was conducted. In each cycle, the difference between the student's level of English vocabulary was examined. However, the student's level of English vocabulary was measured based on the scoring in the test.

### **3.4 Data Collection**

In this research, the data was collected from the students in quantitative terms in form of the score that the students achieved in the pre-test and the pro-test. The passing score were 50 percent while the target scores after the applying the mnemonic method of vocabulary teaching was 75 percent.

## **4. Data Analysis**

The data was analyzed through statistical analysis techniques. The scores of the students were analyzed to find the mean difference. Thus, mean analysis was conducted to find the mean scores and the difference in the mean scores, While One sample T-test was conducted to compare the means and to determine the significant difference in the means scores values in the pre-test and pro-test.

### **4.1 Result**

#### **Cycle1**

The pre-test and post-test were conducted in the cycle1. When the pre-test was conducted for examining the level of the English vocabulary of the students, the scores of the students were noted and the mean scores were then measured. Then the students were guided through key method mnemonic technique of vocabulary teaching and then the post-test of the cycle1 was conducted and the scores of the students were measured. The below table is showing the scores of the students in the pre-test and post-test and the different in the scores of the students.

Table: Cycle1 Scores

No. of Observations	Pre-test Scores	Post-test Scores	Difference in Scores
1	61	62	1
2	58	59	1
3	54	59	5
4	62	71	9
5	47	53	6
6	44	47	3
7	81	80	-1
8	73	72	-1
9	48	51	3
10	66	62	-4
11	51	57	6
12	53	54	1
13	38	48	10
14	44	58	14
15	37	61	24
16	73	74	1
17	64	68	4
18	63	83	20
19	57	74	17
20	43	75	32
21	37	42	5

22	64	78	14
23	72	76	4
24	53	50	-3
25	58	59	1
26	53	73	20
27	42	58	16
28	62	78	16
29	43	66	23
30	48	54	6
31	51	69	18
32	37	74	37
33	71	74	3
34	48	68	20
35	51	81	30
36	57	73	16
37	53	84	31
38	48	64	16
<b>Mean Score</b>	54.34	65.50	11.16

The above table is showing that the mean scores of the students in the vocabulary test was 54.34. While when the students were guided through the key method mnemonic method of vocabulary teaching and then the post-test was conducted then the mean score of the students was 65.50. The difference in the mean scores was calculated as 11.16.

While the below table shows results of One Sample t-test for the Cycle1.

Table4: One-Sample t-test (Cycle1)



Test Value = 0						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Cycle1Pretest	29.899	37	.000	54.34211	50.6595	58.0248
Cycle1Posttest	36.445	37	.000	65.50000	61.8584	69.1416

As seen in the above two tables although the students have passed the test as the mean marks of the pre-test are more than 50 percent i.e., 54.34 percent, but the target marks are 65.50 and thus the target marks in the post-test are not achieved, however results of the One-sample T-test is showing that key method mnemonic method of vocabulary teaching played a positive role in improving the vocabulary of the students. While in order to achieve more accurate results Cycle2 was conducted.

## Cycle2

Now the pre-test and post-test were also conducted in the cycle2. When the pre-test was conducted for examining the level of the English vocabulary of the students, the scores of the students were noted and the mean scores were then measured as in cycle1. Then the students were guided through key method mnemonic technique of vocabulary teaching and then the post-test of the cycle2 was conducted and the scores of the students were measured as in cycle1.

The below table is showing the scores of the students in the pre-test and post-test and the difference in the scores of the students.

Table: Cycle2 Scores

No. of Observations	Pre-test Scores	Post-test Scores	Difference in Scores
1	67	74	7
2	62	84	22
3	53	65	12
4	76	86	10
5	86	93	7

6	84	85	1
7	57	79	22
8	69	74	5
9	67	51	-16
10	53	85	32
11	41	74	33
12	69	79	10
13	71	74	3
14	53	69	16
15	65	85	20
16	73	91	18
17	64	78	14
18	54	83	29
19	59	75	16
20	72	84	32
21	68	67	1
22	75	86	11
23	81	89	8
24	64	92	28
25	63	74	11
26	68	69	1
27	58	76	18

28	64	79	15
29	58	81	23
30	74	86	12
31	64	85	21
32	41	58	17
33	84	71	13
34	64	76	12
35	73	81	8
36	69	75	6
37	67	84	17
38	65	75	10
<b>Mean Score</b>	65.65	78.21	13.81

The above table is showing the scores of the students for their vocabulary in the pre-test and the post-test in cycle2. The above table is showing that the mean scores of the students in the vocabulary test was 65.65. While when the students were guided through the key method mnemonic method of vocabulary teaching and then the post-test was conducted then the mean score of the students was 78.21. The difference in the mean scores was calculated as 13.81. The results obtained from the scores of the Cycle2 shows an improvement in the scores of the students in the Cycle1.

While the below table shows results of One Sample t-test for the Cycle2.

Table: One-Sample t-test (Cycle2)

---

Test Value = 0

	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Cycle2Pretest	39.339	37	.000	65.65789	62.2762	69.0396
Cycle2Posttest	53.575	37	.000	78.21053	75.2526	81.1684

As seen in the above two tables that the students passed the pre-test before the guiding them through key method mnemonic technique of vocabulary teaching, but the passing score were still not achieved in the pre-test. How the performance of the students in the pre-test of cycle2 was improved to mean score of 65.65 from mean score of 54.34 in cycle1. But when the students were guided through key method mnemonic technique of vocabulary teaching and them the post-test of cycle2 was conducted, then the results showed that the vocabulary of the students was significantly improved as seen in the One Sample t-test. Thus the result of the analysis shows that keyword mnemonic technique of vocabulary teaching has significant role in improving the English vocabulary of ESL learners studying at secondary schools.

## 5 Discussion

The results of the Cycle1 shown that although the students have passed the test as the mean marks of the pre-test are more that 50 percent i.e., 54.34 percent, but the target marks are 65.50 and thus the target marks in the post-test are not achieved, while in order to achieve more accurate results Cycle2 was conducted. While the student's vocabulary in the pre-test of cycle2 was improved to mean score of 65.65 from mean score of 54.34 in cycle1. But when the students were guided through key method mnemonic technique of vocabulary teaching and them the post-test of cycle2 was conducted, then the results showed that the vocabulary of the students was significantly improved as seen in the One Sample t-test. Thus, the result of the analysis shows that keyword mnemonic technique of vocabulary teaching has significant role in improving the English vocabulary of ESL learners studying at secondary schools. As per the results of [10], showed similar findings to this study. It was indicated that there were positive and good effects on the recalling memory of the learners. Moreover, this result was in accordance with the findings of [11], who reported that the keyword learners had same levels of recalling. More words were recalled than the other subjects of mnemonics which includes the imagery and link conditions. The results of the current study under discussion also demonstrated that the method of keyword is most effective on the production of the vocabulary, since the keyword mnemonic group performed better. It also made the students enthusiastic as well as motivated during the process of learning. When the students visualize, then their level of enthusiasm increases also they are more concentrated especially when it comes to imagining in the method of mnemonics, as compared to the other groups where the students were dull and were just wild guessing the words. As per [12], the method of mnemonic is

used for facilitating the learners in memorizing the words in an easy and efficient method. In other words, the mnemonic method focuses on the memory activity of the students.

## 5.1 Recommendations

As per the educational perspective, the instructional methods of mnemonic for instance the keyword method is very valuable and effective tools of training. The findings of this study coordinate with the instructions of mnemonic and its viability in various languages and fields. The enthusiasm as well as motivation of the students should be stimulated for various vocabulary learning strategies, with the understanding that there is always a need in the self-improvement in the educational system. There should also be familiarizing with the advantages as well as the application, procedures of the educational techniques which are visuals for enhancing the learning and recalling of the vocabulary. They can also utilize the various useful concrete examples for the indication of the procedures of the techniques which are more explicit and helpful in this manner. The findings of this current study have benefits both for the students as well as the educator. It can be beneficial for both the parties to apply in the visual as well as vocabulary training which also include the studying of mnemonic method in providing a logical understanding for the various issues as well as debates. The teachers of English language can use a similar technique or methods for enhancing the mastering of vocabulary for the students so that the learning as well as teaching process can be made more enjoyable as well as creative. The study can be beneficial for the future researches in the other lessons as well as for future research so that this can be made more applicable for the other settings of classrooms as well.

## References

1. Achmad, Syarifudin. (2019). *International Journal of Linguistics*. Developing English Vocabulary Mastery through Meaningful Learning Approach. (Vol 5, No 5)
2. Aitchison, J. (2012). *Words in the Mind: An Introduction to the Mental Lexicon (3<sup>rd</sup> Ed.)*. Blackwell Publishers: Great Britain.
3. Amiryousefi, M., & Ketabi, S. (2018). *Mnemonic Instruction: A Way to Boost Vocabulary Learning and Recall*. Journal of Language Teaching and Research, 2(1). 178-182. <http://dx.doi.org/10.4304/jltr.2.1>
4. Amiryousefi, Mohammad. (2011). *Mnemonic Instruction: A Way to Boost Vocabulary Learning and Recall*. Isfahan: Academy Publisher.
5. Arikunto, S. (2010). *Prosedur Penelitian; Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta
6. Atkinson, R. C. (1975). *Mnemonics in second-language learning*. *American Psychologist*, 30(8), 821-828.
7. Baxter, J. (1980). The dictionary and vocabulary behaviour: A single word or a handful? *TESOL Quarterly*, 14, 3: 325-336.
8. Bellezza, F. S. (1980). Mnemonic devices: Classification, characteristics, and criteria.
9. Bower, C. H. (2017). Analysis of a mnemonic device. *American Scientist*, 58: 496-510.
10. Bruning, R., Schraw, G., and Ronning, R. (1999). *Cognitive psychology and instruction (3<sup>rd</sup> ed.)*.

11. Bruning, Roger H & Schraw, Gregory J & Norby, Monica M. (2011). Cognitive psychology and instruction (5th ed). Allyn & Bacon/Pearson, Boston, MA
12. Burns, A. (2020). *Doing Action Research in English Language Teaching*. NewYork: Routledge.