Investigating The Effectiveness Of Anagram Technique On Pakistani Students' Vocabulary Mastery

Dr. Zafar Iqbal Bhatti[1] , Dr. saima waheed[2] , Saqib Javed[3]

[1]Assistant Professor, Department of Linguistics and Communications University of Management and Technology, Lahore. https://orcid.org/0000-0002-0670-5082

[2]Assistant professor, school of media and communication studies, university of management and technology, Lahore (UMT) http://orchid.org/0000-0001-7177-1660

[3]M.Phil Linguistics, International Minhaj University, Lahore.

Abstract

This study is related to an analysis of teaching vocabulary through anagrams at the elementary level in Pakistan. This is a classroom action research because it is conducted in the classroom. This study aims to improve teaching-learning outcomes. Students of class seven were selected for this study. Random sampling was done, and thirty students were selected for this purpose from 120. The key purpose of this study was to guide the students of the elementary level in learning vocabulary by using anagrams because the researcher faced problems in vocabulary building during the initial study. In advance, the researcher wanted to help the students in learning and enhancing vocabulary. Action research is conducted to solve educational problems at the classroom level. This research provides a solution to overcome learning problems. Revised Bloom's Taxonomy is used to get an effective result in teaching vocabulary through anagrams step by step. The researcher implemented the first step in the form of pre-test to judge the problem of students, and after that, some strategies were planned to teach them

anagrams. The researcher implemented the first step in the form of pre-test and post-test to judge the problems of students. In this regard, some plans were executed to teach them vocabulary through anagrams. Field notes, checklists, and a questionnaire were also given to find out the attitude and behavior of the students.

Keywords: vocabulary, Anagram technique, learning outcomes, Bloom's Taxonomy

1   Introduction

According to Sulishtianinshih et al. (2020) suggested that vocabulary learning is a big challenge for the foreign learner, which is faced by him while learning a language (Sulistianingsih, Juliani, & Pradjarto, 2020). A language is the main tool that is used to communicate with people of a specific area to take and convey the ideas, messages, emotions, and expressions which may be in spoken form or written form. Vocabulary is the main part of the language, and it has acute importance to the distinctive language learner, without an adequate vocabulary, no one can communicate effectively or direct his ideas in both oral and written forms. It means that students of elementary level need a lot to increase the vocabulary of the basic level. Vocabulary is very important to learn a proper language because language proficiency leads learners to widen their thoughts and creativities. "To live in the world, we have to name every single thing we see. Names are very important. Without a name, it is very hard to accept the existence of any object, an event, or a feeling (Rahman, 2016)."

Different ways are used to increase vocabulary like games, pictures, flashcards, etc. The most important and useful way to increase vocabulary is through the use of anagrams. It is a type of word production rearranging the letters of words and phrases to produce a new form of words and phrases. By jumbling words, new words are formed. Anagrams' activities inspire the students and fully involve them in their work to do it in an effective way and enhance their vocabulary. An anagram is a kind of wordplay in which students rearrange given words and form out a new word or a new phrase, which is also meaningful as the original one. For example, word 'could' can be changed in word 'cloud' 'leak into the lake,' 'are into the ear,' 'and 'stream into a master' etc. this technique avoids students from boring and increase their curiosity in building new words which they create and can save them in their long-term memory.

The researcher's selection also found support from many previous studies. They put this important research in a nutshell by saying these words, "students are able to enjoy games and exercises when using puns, riddles, crossword puzzles, anagrams and palindromes." They also stated that "anagrams will make the students able to emphasize on the importance of letter position in relation to word

meaning (Hiebert & Cervetti, 2012)." In accumulation, students become curious about learning and digging new words to enhance their vocabulary.

Anagram's solution is a recreational activity, but it becomes part of many activities like puzzle solving, unscrambling the scrambled words and arranging jumbled words, etc.

1.1 Statement of the problem

The study is related to an analysis of teaching vocabulary through anagrams at the elementary level in Pakistan. Vocabulary is a big issue for second language learners. There are many ways to learn vocabulary; anagrams are one of them to learn vocabulary. So, the researcher selected this topic to check the effectiveness of anagrams in vocabulary enhancement in a proper way, which is only a research method.

1.2 Objectives of the study

- To know whether anagrams increase students' vocabulary competence.
- To setup, anagrams to improve students' vocabulary learning.

1.3 Hypothesis

1. Anagrams are useful to learn vocabulary at the elementary level.
2. Anagrams activities are interesting for students, and they learn through them.

1.4 Significance of the study

The study has great significance, according to the researcher's point of view. It may provide information for three-person, for teachers, for students, for readers. In the case of teachers, it may be useful as an alternate technique to teach vocabulary. In the case of students' anagrams may be fun to learn vocabulary because interest is the main cause of learning anything. In the case of readers, it may increase their interest in further researches, which will be useful to increase vocabulary.

1.5 Methodology

This study is a classroom action research because it is conducted in the classroom, and students are the subject of this study because it aims to improve teaching-learning outcomes. The main purpose of this study was to guide the students of class seven in learning vocabulary by using anagrams because the researcher faced problems in vocabulary building during initial education. Further, the researcher wanted to help the students in learning and enhancing vocabulary efficiently. Action research is conducted to solve educational problems at the classroom level. This research provides a solution to overcome learning problems (Stringer, 2008).

According to Fraenkel & Wallen (2009), action research is research piloted by one or more characters or groups for the purpose of solving a problem or gaining information in order to notify the local practice (Fraenkel & Wallen, 2009). Thirty students were selected for this research work. The researcher implemented the first step in the form of a pre-test to judge the problem of students, and after that, some plans were made to teach them through anagrams. During teaching, many activities were given to them to solve. In the end, a post-test was taken, which proved the effectiveness of the method.

1.5.1 Population
Contestants of the study were the students of elementary level public sector high school for girls. There were five sections of seventh grade, and the total students of seventh grade were 120, which were selected as a population of the study.

1.5.2 Sample
One section was nominated as a sample of the study. The students were thirty in the number who were taken randomly from all sections and combined in one section, namely orange. This was random sampling.

1.5.3 Instrument
The researcher adopted appropriate research instruments, which are field notes, checklists, and a close-ended questionnaire. An additional instrument was 'test' to understand the effectiveness of the selected procedure. Pre-test and post-test were taken properly. Diagnostic tests were also taken to judge the effectiveness of research. This instrument, which is called 'test,' used only for personal understanding about the students not for gathering data, but it became helpful for planning about supplementary data.

1.5.4 Data collection
Data were collected implementing instruments one by one, respectively. Field notes were given to know about the present condition of the teaching and learning process and by using different activities, for example, jumbling words, matching columns, fun games of different words, for example, a word 'FLOUNDERS' by using the letters of this word students were to make ten meaningful words which must consist on more than four letters and no letter should be repeated, e.g., founder, fern, sound, ruled, etc. observation checklists were filled by observers. In the end, a close-ended questionnaire was also given to the students to gather data, which was the essence of the research because the behavior and attitude of the students were checked through this instrument towards the implementation or execution of anagrams.

1.5.5 Data Analysis

Data were analyzed by distributing a close-ended questionnaire among students. This questionnaire was divided into four sections, and every section has five statements, and gathered data was analyzed by using the formula to find

out the mean score because it is related to the attitude and behavior of the learners towards the execution of anagrams. Before starting the research, a pre-test, and after that, a post-test was conducted to know about the present situation. It was a quantitative research study. It was found that every student interested in the activities of this research.

A. Hypothetical or Theoretical Description

In this part, theories that were related to this research were discussed. These theories became helpful in the implementation of related work. A basic aim was achieved by them for basic understanding. The researcher divided this part into three parts. First is related to the knowledge of vocabulary second is related to teaching and learning of vocabulary, and third is associated with the practice of anagrams that are used to impart vocabulary.

Students should acquire vocabulary to understand the use and meaning of the word with its reference and context. In the erudition of vocabulary, the focus must be on accurate pronunciation and spellings. It expresses the best learning capacity. (Hakimovna, 2017) summarized that "vocabulary learning is a complex process which requires the ability to recognize the words, remember them, and to pronounce, spell and use them correctly." Putting in a nutshell vocabulary erudition is difficult because there are some facets that learner needs to obtain. In accumulation, (Kira, Urabe, Inamoto, Kaneko, & Yamazaki, 2015) enhances the knowledge that there are three ways to about words,

(1) To know about its form.

(2) To know about its meaning.

(3) To know about its use
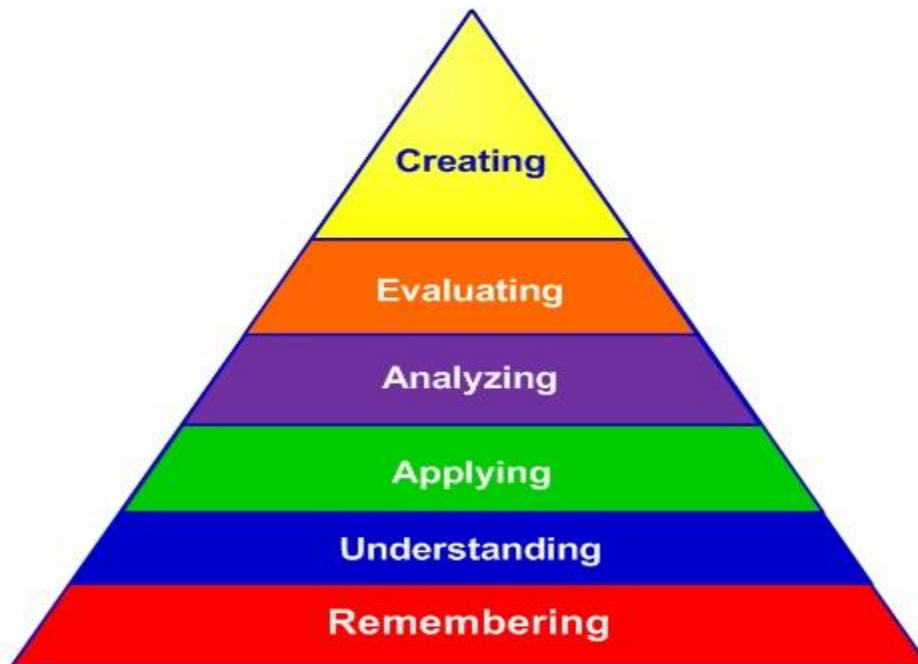
Blooms Taxonomy - Revised

Figure 1: Bloom's Taxonomy

In order to maintain the education process in a fruitful one, the tutors have to be more inventive in generating teaching vocabulary methodologies. The teacher has the knowledge and can impart knowledge to students, after that this knowledge leads them towards comprehension, this comprehension becomes the cause application, this application gives them the courage to the analysis of applied knowledge, the analysis makes them confident to synthesis the analyzed knowledge and evaluation of learning should be successful from both sides (teacher and students)

1.6 Methods of Teaching Vocabulary

Teaching English vocabulary as a foreign language student is somewhat thought-provoking. According to (Fisher, 2012), a learner must know and would be able:

- ➢ To explain the gist of mysterious words.
- ➢ To preserve them in long-term remembrance.
- ➢ To evoke them at determination.
- ➢ To practice them in verbal or writing form.

1.7   The use of Anagrams to teach vocabulary

An **Anagram** is a word or phrase formed by rearranging the letters of a different word or phrase, typically using all the original letters exactly once.

 For example;

Anagrams are the words that can be drawn back to the Ancient Greeks. They can also be used to find hidden and mystical meanings for different purposes. Anagrams were very useful and popular all over Europe during the middle ages. Anagrams in Latin have reflected very amusingly above many epochs. "Estvir qui adest," elucidated and cited as the example in Samuel Johnson's A Dictionary of the English Language. They became massively popular in the Early Modern periods, especially in Germany. This is the history of anagrams, which leads us that this is not a modern activity; it is followed by centuries. It is a very effective and good one which is used in the modern era. It is very effective in teaching and learning vocabulary.

The above model is a description of that method that takes place in the mind of learner step by step input lexicon; the recognition process moves towards the semantic system. Semantic system molds the words by understanding them and tries to convert them according to their understanding in a meaningful way. Semantic system of learner molds and prepare learner's mind to create the output of phonological lexicon and leads to buffering and conversion of spellings in meaningful words. This allographic conversion activates speech motor programs and graphic motor programs.
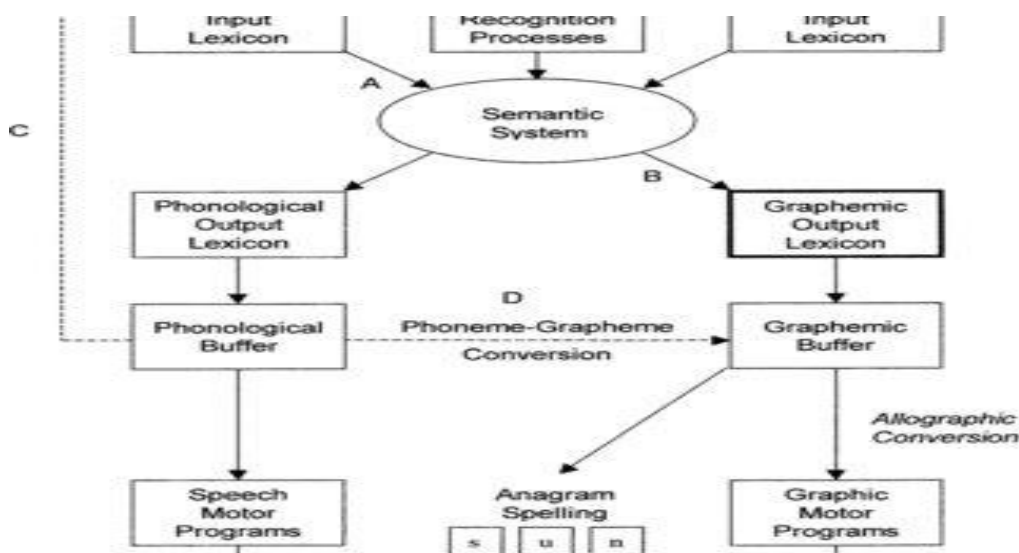

Figure 2: A Model for Learning Vocabulary Through Anagrams

1.8   The Paybacks of Applying Anagrams to Impart Vocabulary

The teacher can help the students to enhance their confidence level by executing anagrams because when we ask any question to students, and they reply it correctly, they feel happiness, comfort, and confidence and make ready themselves for the next. In addition, (Alpar, 2013) describes that games contribute the learner a sensation of antagonism to contribute to the learning process of vocabulary and provoke them to learn enthusiastically. In relation to anagrams, their use puts positive effects on vocabulary learning. There are two positive effects consider good when teachers apply anagrams as a teaching means to teach vocabulary.

1) The learners' awareness about pairs of words.
2) The learners' understanding of words and their meanings deeply.

Theoretical Framework

The research is associated with the effective practice of anagrams to teach vocabulary to the students of class seven of a public school. Thus, in this research, three main theories are used, which are erudition of vocabulary, vocabulary erudition strategies, methods of coaching vocabulary through anagrams.

Moreover, jargon advancing necessities a decent and powerful approach, method, and technique, which make this learning significant, and it very well may be laid out by the coach. As per (Bakhsh, 2016), that jargon education can be expressive assuming the coach can direct the showing strategy by joining the possible abilities of instructing. Along these lines, one might say that, games ought to be created as methods to confer jargon.

In this exploration, the homeroom activity research model utilized, which was presented by Kemmis and Taggart (1988). The scientist executed two cycles, individually. The primary cycle involved arrangement activity perception and reflection, and the subsequent cycle be comprised of the redesigning of the principal cycle, however the arrangement updated similar advances. These means depend on progress. It assisted the scientist with zeroing in on the mix-ups that happened in the first round. This model consolidated the examination into two sections.

1) Action

2) Observation

In this classroom action research, the researcher came to know about the present situation of students that where they were standing and which kind of steps should be taken for their improvement, in the observation researcher observed directly in the classroom. This spiral model is given below;
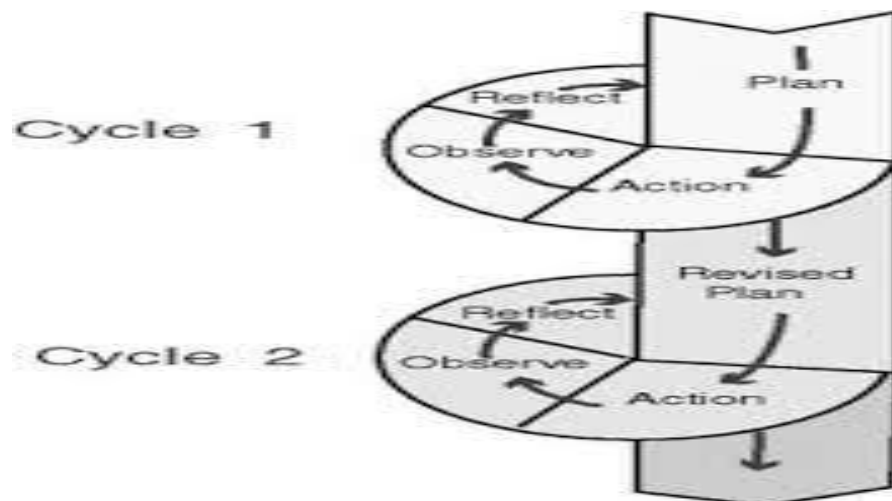

Figure 3: Classroom Action Research Model developed by Kemmis &McTaggart

1.9   Methodology

This study is action research because it is conducted in the classroom, and students are the subject of this study because it aims to improve teaching-learning outcomes (Jean, 2017). The main determination of this study was to guide the apprentices of class seven in learning vocabulary by using anagrams because researchers faced problems in vocabulary building during the initial study. Moreover, the assistance of the understudies in learning and improving jargon productively is the main pressing issue of the specialist. Activity research is to tackle instructive issues at the homeroom level. This examination gives an answer for defeat learning issues.

As indicated by Fraenkel and Wallen (2009), study hall activity research will be research joined by at least one creatures or gatherings to clarify an issue or acquiring realities to illuminate restricted practice. Thirty students were selected for this research work. The researcher implemented the first step in the form of pretest to judge the problems of students, and after that, some plans were made to teach them anagrams. During teaching, many activities were given to them to

solve. In the end, a post-test was taken, which proved the effectiveness of the work.

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CYCLE#1

1.10 Introductory study

Before the implementation of the plan of action of classroom action research, an introductory study was accompanied by the researcher. (Greenwood, 2018) specified that introductory study is a procedure of collecting data to upkeep the broad notion in directing the research of the researcher. The researcher directed a straight observation in the course of the teaching and learning method in the class. In addition, to identify the problems that occurred during the learning process, the researcher used field notes in the classroom.

a) **Plan**

The researcher herself is a teacher, but she debated the plan with the English tutor of the same class. This discussion was related deciding factual and accomplishment to overwhelmed on the difficulties which were discovered in the introductory study. Designed material was taken by the researcher for students from their syllabus. Before the implementation of anagrams, a lesson plan was prepared, which was based on the School-Based Curriculum. One lesson plan was applied to one meeting by the researcher.

The analyst planned two instruments to gather information during the learning system. Those two instruments are the agendas and field notes. These two devices were castoff to check and observe the understudy's reaction or lead of the understudies towards the savviness cycle. The scientist's significant accentuation was to carry out a commendable means to help the students of class seven in knowledge jargon.

b) **Action**

In this phase, the anagrams were executed by the researcher. The researcher executed the material and means which were designed in the previous phase. Anagrams were executed for vocabulary learning. Some activities are also

conducted, which were related to the already discussed material. It was used to speedy the mind and impulse of the students to compose the anagrams also.

c) Observation

During the execution of anagrams words, the researcher took the assistance of one more English instructor for the perception of the learning system. The specialist notices the understudies profoundly and utilized two devices to execute the learning system during the methodology. They were agendas and field notes. The perception agendas were involved fourteen objects of reconnaissance, which were discussing the exercises of the educator and the students over the intellect interaction. Then, at that point, the field notes were utilized to get data on altogether notes, which were to be filled by the understudies in the given time. These two instruments or devices were utilized to stamp a reflection from the main stage.

d) Reflection

In this phase, the execution of the first cycle was reflected by the researcher. The determination was to recognize to pinpoint the main problems and needs for improvement. Further, it leads to know whether the first cycle worked well or not. It would be successful or not. The reflected result provided a base for the second cycle.

The researcher fixated on the execution of anagrams and the behavior of students towards the execution of anagrams. Dale and Rourke are followed by the researcher in making anagrams. So, the focus of the researcher was to know what had been achieved good from anagrams' implementation and what would be looked-for to be amended. The researcher not only fixated on the goodness and requirements of vocabulary learning but also engrossed on the students' behavior towards the execution of anagrams. The main aim or determination of the research is to get the attention of students to complete her research work. So, the perseverance of the research is to identify the interest of the learner, whether the students are enjoying to play with anagrams or not.

Table 1: Table of Instruments & Data Collected Dates

Tools	Data Collected	Introductory Studies	Cycle 1	Cycle 2

Vocabulary tests of students	The score of the students in test	March 15, 2019	-	-
Observation Checklist	The tutor and learners' activities in the course of the execution of anagrams.	-	April 17, 2019	April 21, 2019
Close-ended questionnaire	The opinions, experiences, and feelings of the students towards the execution of anagrams and future expectation	-	-	May 07, 2019

1.11 Data analysis technique

Researchers used both kinds of techniques qualitative and quantitative. Qualitative in case of checklists and field notes and quantitative in case of the close-ended questionnaire. Through perception agendas and field, takes note of the analyst came to be aware of the work that what work worked out positively, and there was a need to work on throughout the execution of re-arranged words in cycle 1 and cycle 2, individually.

After the use of re-arranged words, the analyst assembled a few information from the understudies of class seven by giving them a nearby finished survey. The information excepted by the specialist according to the understudy perspective toward the execution of re-arranged words. During the execution of re-arranged word, the scientist experienced assessments of the understudy en route to the utilization of re-arranged words to learn jargon and future expectation for jargon learning. The scientist analyzed the nearby finished survey by utilizing the Likert Scale Scoring technique, as refered to in (McNiff, 2016).

According to them, "Every positive statement, Strongly Agree is scored 5, Agree is scored 4, Neutral is scored 3, Disagree is scored 2, and Strongly Disagree is scored 1. For negative statements, Strongly Agree is scored 1, Agree is scored 2, Neutral is scored 3, Disagree scored 4, and Strongly disagree is scored 5." Further, the close-ended questionnaire allocated by the researcher into four segments to collect data. The first segment included the statements from 1-5, which were related to the students' points of view towards English lessons.

The second segment included the statements from 6-10, which were related to the experience of the learners to learn vocabulary. The third segment included the statements from 11- 15, which were related to the practice of the learners after the execution of anagrams. The fourth segment included the statements from 16-20, which were related to the future expectation of the students directed for the execution of games to learn vocabulary like anagrams. The above explanations in the form of a table are given below:

Table 2: The Data Assembled from the Close-Ended Questionnaire

Items	Data Assembled
1-5	Students' opinions of interpretation of English lessons.
6-10	Students' experience of erudition vocabulary before the execution of anagrams.
11-15	Students' involvement and opinion during the execution of anagrams.
16-20	Students' expectations for the future to learn vocabulary.

The mean score of each segment was counted to define the attitude and behavior of the students. According to (Fraenkel & Wallen, 2009) "If the mean score is less than 3.0, it means the individual shows a negative attitude or behavior, and if the mean score is 3.o and above, it means the individual shows positive

attitude and behavior." The formula for counting the mean score revealed in table below:

Table 3: The formula for calculating the mean score

Statements	Items' score	X _____
1-5	SA= 5/1 A= 4/2 N= 3/3 DA= 2/4 SDA= 1/5	∑ Items Score/ 5
6-10	SA= 5/1 A= 4/2 N= 3/3 DA= 2/4 SDA= 1/5	∑ Items Score/5
11-15	SA= 5/1 A= 4/2 N= 3/3 DA= 2/4 SDA= 1/5	∑Items Score/5
16-20	SA= 5/1 A= 4/2	∑ Items Score/5

	N= 3/3	
	DA= 2/4	
	SDA= 1/5	

X   = mean score

N   = number of objects

∑ Items Score   = sum of the objects scores

The mean score of all segments calculated by the research, and after that, the overall calculation of all statements of the questionnaire was done. It was done to determine the behavior and attitude of the students, either is it positive and negative towards the execution of anagrams. It is observed and determined according to the account of (Greenwood, 2018). They stated that "If the mean score is less 3.0, it means the individual shows negative attitude or behavior, and if the mean score is 3.o and above, it means the individual shows positive attitude or behavior." The formula for calculating the mean score of the overall mean score of the close-ended- questionnaire is given below.

$$X= \quad \sum X\ 1, 2, 3, 4/4$$

X=   mean score

∑X 1, 2, 3, 4 = sum of every section' mean scores

$$\sum 1, 2, 3, 4/4$$

Figure 4: Formula for calculating the mean scores of the close-ended questionnaire

Moreover, the researcher has given the result of the analysis of the close-ended questionnaire by using the above formula. These calculations used to support the improvement of the student after the execution of anagrams. Both kinds of behavior can be judged by the calculations of the questionnaire.

2 Results and discussions:

This unit results in the execution of anagrams by adopting classroom action research in class seven in a public school. Particularly, two major research segments were discussed in this research unit. Those were;

A. Execution of classroom action research.

B. Attitude**s** and behavior of the learners towards the execution of anagrams to learn vocabulary.

A. The Execution of Classroom Action Research

This segment is related to the method of using anagrams as a means for erudition vocabulary at the elementary level. Furthermore, this segment was divided into three sub-segments. Those were introductory studies, the execution of the first cycle, and the execution of the next cycle. In the introductory study and the execution of the first and second cycles for gathering data, the researcher conducted three meetings. Each meeting was of sixty minutes in order to discover the achievements of the apprentices' way of erudition vocabulary.

2.1 Discussions

Vocabulary is a significant factor of language, and vocabulary erudition is a fundamental part of overseas language erudition. Language learners necessitate a wide assortment of words in an objective language to be able to deal with both fabrication and conception tricks effectively in the foreign language. One approach to help learners is by equipping them with an array of vocabulary erudition schemes.

The findings in this research elaborate on the compensation of anagrams: ever-increasing students' English vocabulary, serving students to fortify their memory, working out, students to be patient in learning anagram, and schooling students to control their sentiments. This theory is demonstrated by the ruling of the research. Additionally, some prior researches show that anagrams are useful in teaching and learning vocabulary. The findings of the earlier research are similar to the findings of this research, which is that anagrams are valuable in helping students to learn more vocabulary. For instance, Saufiyah Zahrah and Albadri (2015) found that arbitrary anagram was able to get better the year five pupils' spelling, inspiration to learn vocabulary, and mental preservation in spelling.

In short, by taking the tests of students which are pre-test and post-test, declared that any strategy which is used for a specific purpose must have effects either good or bad. In the same way, anagrams are used to teach vocabulary in very effective ways, and good results are found, and students give good results

and views about such kind of games which improve their self-confidence and learning behaviors.

2.2 Conclusions

Based on the study, keeping in mind all the findings and discussions, the specific determination of the study was to reconnoiter the effectiveness of the anagrams to teach vocabulary at the elementary level. The outcome of this research expresses that anagrams are a good vocabulary learning strategy. It encourages a superior sense of guidance in learners, which motivates them to draw their selves. Through anagrams, students show the way to their selves to a durable work finding words from the given alphabets. They confer with the teacher and dictionary, and they are even more vigorous and confident having arguments with their mates.

Beyond improving students' vocabulary mastery, it also creates amusing learning for students. Thus, it is stoutly recommended that teachers should concern this practice to help in improving students' vocabulary. In short, it can be said that the use of anagrams is a very good source to teach vocabulary at the elementary level. The execution of anagrams to teach vocabulary, if truth be told, helped the students to master new words. It was found that students not only memorized but also used them in new forms. The students could understand the spellings, meanings, pronunciation, and parts of speech. They taught by following Bloom's Taxonomy and Kemmis and McTaggart model of classroom action research. Putting in a nutshell, students can apply the learned knowledge in an effective way. It can be said that anagrams are the best way to learn and teach vocabulary at the elementary level, especially to seventh class.

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