The Impact of Pictures and Graphs on ESL learners' Vocabulary building at Elementary level

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Abstract:

This research was based on the impact of pictures and graphs while teaching vocabulary to students at the elementary level. This was experimental research. Sixty students of the eighth class were chosen randomly as a sample for this research. Some steps helped the researcher collect data: pre-test, treatment, and post-test. The data description was based on planning, implementing, and processing the standard teaching and assessment system according to the set parameters in the lesson plan. The collected quantitative data was analyzed by using SPSS. Statistical analysis (mean, standard deviation) of quantitative data was done using ANOVA. The data analysis found out that an F-value of the effect of the teaching method was 10.781 and significance value was .002 where it is less than 0.05, and the mean score of post-test for the experimental group was 87.60 and for the control group were 80.80. The findings of this research showed that the use of pictures and graphs has a significant impact on learning vocabulary at the elementary level. Finally, the researcher encouraged and supported the students to learn their vocabulary through pictures and graphs instead of another way.

Introduction

Learning a new language is essential for acquiring new words or vocabulary. Vocabulary plays a vital role while learning English as a second language related to terms. To develop language skills such as listening, speaking, reading, and writing, you'll need to build your vocabulary (Aravind & Rajasekaran, 2020). The more a person has a vocabulary, the sooner they learn English. To comprehend English reading, speaking, or writing, you will need to learn a lot of vocabulary. It is challenging to meet the target without adequate vocabulary (Carlisle, 2007).

Photographs are considered very useful for improving the vocabulary of students. The image is visual, stimulating the eagerness of learners to learn a language is considered very successful (Massaro, 2015). In teaching and learning, using pictures and graphs can help students to pay attention. The teacher can use different pictures such as posters, drawings, or any written images as they are really easy to find (Lamour Sansone, 2015).

Problem Statement

ESL students in government boys schools at the elementary level, the researcher found it difficult to cope with vocabulary as the key issue of this research (Al-Sobhi & Preece, 2018).

Traditional teaching approaches are used in our educational institutions, and there is a need to follow the approaches of innovative teaching and learning (Lourenço & Jones, 2006).

This research draws teachers' attention in using visual materials to make their teaching effective, simple and interesting. This research also evaluates the effectiveness of visual materials (images and graphs) for elementary-level vocabulary teaching.

Research Objectives

● In the English language, to decide the function of vocabulary.
● To investigate whether images are useful in vocabulary building at elementary-level for ESL learners.
● To develop the vocabulary skills of students.
● To encourage English language teacher to teach vocabulary with the help of pictures and graphs.

Research Questions

● What is the impact of pictures and graphs on ESL learners at Elementary level?

• Are pictures helpful to improve vocabulary skill of ESL learners at the elementary level?

• Are students motivated towards learning vocabulary skill with the help of pictures and graphs?

Organization of the Research

● The researcher in this study intended to check the development of vocabulary learning through graphs and pictures.
● In this study, the researcher employed a true experimental research technique.
● The pre-test was used to measure the learners' present knowledge of vocabulary
● The post-test was conducted to evaluate the impact of using pictures and graphs during students' vocabulary learning at elementary level.

Variables

- Independent Variable: Vocabulary Teaching Skill, use of pictures and graphs.
- Dependent Variable: Students' learning, vocabulary building.
- Gender: Male
- Age: students from 11 to 14 years of age.

Population

All the students studying in the boys elementary schools situated in Rahim Yar Khan Tehsil were included in the population for the current research.

The students of eighth class took part in this research. All the students of 8th class of Government boys' elementary schools in tehsil Rahim Yar Khan were included in the population for this research.

Sampling

The researcher chose sixty students randomly from three different schools of eighth grade.

The samples were chosen from the three Government boys elementary schools of Rahim Yar Khan City. Twenty students from each school were chosen such as; Govt. boys Elementary school Gulshan Iqbal, Govt. boys' elementary school Jinnah Park and Govt. boys Elementary School Unilever. Sixty students were selected randomly. Thirty students were selected for the experimental group. Thirty students were placed in the control group. Both the groups were treated according to the requirement of the research.

THEORETICAL BASE

Definition of Teaching

Teaching is a process in which a teacher creates an appropriate environment for the students to learn in any field such as science, art and professional skill(Berliner, 2001).

It is a set of methods applied by teacher such as; developing a lesson plan, implementation of lesson plan and evaluation of the result in classroom. From the above definition, it is concluded that teaching is a way of transferring knowledge from a teacher to the students to make them understand about some topic (Kennedy, 2016).

Use of Pictures and Graphs as Media

(Shabiralyani, Hasan, Hamad, & Iqbal, 2015)Pictures and graphs are used to attract the attention of the students in the process of vocabulary building. It is obvious from the previous research studies that pictures and graphs boost up students' memory as well as attention. Pictures and graphs provide stimulus to motivate the students.

Pictures and graphs are visual objects, which are found everywhere a language teacher can draw pictures himself/herself while teaching students vocabulary in an ESL class on the whiteboard. He can cut them out and produce charts according to the requirement (Gueaieb, Milyakina, & Aizam, 2015).

Pictures and graphs represent places, people and things from past, present and future. Pictures and graphs provide such feeling that they create the feeling of real world. There are many objects in the world, which cannot be seen by an ordinary man, but using pictures and graphs a man can see and feel that object(Cairo, 2012).

Advantages of Using Graphs and Pictures

Pictures and graphs help the teacher to motivate and draw students' interest toward learning vocabulary. Motivatain leads the students toward active participation in the process of teaching learning (Gilakjani & Ahmadi, 2011).

There are many advantages of using pictures and graphs as follows:

- Pictures and graphs are cheap and available everywhere.
- Pictures and graphs help and guide the learners to be free from misconceptions.
- Pictures, graphs and shapes provides visual image of the object, which is impossible to see in other way.
- Visual images lead to concrete learning.
- Comparison of objects is easy through pictures and graphs.
- They make learners able to assess and judge the things critically.
- Their manipulation is easy.

The Definition of Vocabulary

(Beck & McKeown, 1983)A collection of words familiar to a person is called vocabulary.

These are two basic tiers of vocabulary.

General Vocabulary

It is a common kind of vocabulary, which comprises the daily used words by a person such as; book, market and house.

Specific Vocabulary

This is a special kind of vocabulary, which has specific meanings in a specific context, such as rise, mass, root and right.

Previous Research

The previous research study, which the researcher read, was written by the researcher Icuk Harjuno. He concluded that it is an effective technique to use pictures and graphs in the process of teaching vocabulary about the objects around school surrounding of SDN Manyaran 03 Semarang. He found the result that pictures and graphs are helpful in improving the students' vocabulary. That improvement was evident from the result of data analysis in pretest in comparison to the result analysis of data in post-test. In the cycle 1 the students were active was 67.23% and in the cycle 2 the students were active was 85.29%.

There were some similarities between writer study and the Irzawati study. There are also some differences found in the theme, which Izrawati applies in teaching "fruits and animals theme". There were some differences between the students who were taught with the help of pictures and the students who were taught in a traditional way. It was evident that Pictures and other images and shapes were effective to improve the students' vocabulary learning ability. Hence, teacher should encourage using pictures and shapes while teaching the students.

RESEARCH DESIGN

In this present research, the main goal of this study is finding out whether the use of pictures and graphs in teaching vocabulary at elementary level students is effective and helpful. This is an experimental research. In this research, Sixty Students of eighth class from three different Government boys Elementary Schools were chosen as a sample for the research.

The selected students were divided into two groups such as; closed group and experimental group. To collect data, a pre-test, treatment and a post-test were conducted to get the desired result of the research regarding the impact of the pictures and graphs in the process of teaching vocabulary in an ESL class. Objective type questions were asked in the pre-test to assess the knowledge of the students that they have learned earlier.

The students were asked to solve the test within half an hour. After analyzing the students' prior knowledge about vocabulary each group of students was given a treatment required for this research study. All the helping material such as; articles, books and internet were used to get help. The students of the control group were taught in a conventional and traditional way without using and picture or graph to teach them vocabulary.

On the other hand, the students of experimental group were taught using graphs, pictures and other helping shapes to teach them vocabulary in an effective way. The researcher distributed a text that has correlation with the pictures and graphs. After the treatment the students of both the groups were asked to take a post-test to assess their knowledge about vocabulary such as how effective are pictures in learning vocabulary.

The post-test was consisted upon objective questions such as; multiple choice questions and fill in the blanks. The results of both the tests were compared to measure that how effective pictures and graphs are in teaching vocabulary at elementary school level.

The collected quantitative data was analyzed by using SPSS. Statistical analysis (mean, standard deviation) of quantitative data was done using ANOVA. This technique was used to assess significant differences between the students' efficiency in vocabulary learning in both control group and experimental group. This is the trial or technique of something to evaluate its quality, efficiency, volume as well as completion.

Tools of Data Collection

These are the tools of Data Collection employed for this study:

A Pre-Test was conducted to assess the prior knowledge of the students.

A Post-Test was conducted to assess the students learning ability after two weeks teaching through pictures and graphs as well as in a traditional way.

Test	N	Minimum	Maximum	Mean	Standard Deviation
Pre-test Exp group	30	36	96	84.53	13.92
Pre-test Cont group	30	48	100	85.73	10.22

Table no.01 (Description of statistical data of pre-test)

From the above table of pre-test result it is found that the mean score of experimental group in learning vocabulary is 84.53.The standard deviation of experimental group is 13.92. The mean score of control group in learning vocabulary is 85.73.The standard deviation of experimental group is 10.22.Finally the result of pre-test shows that control group is higher in learning vocabulary than learning vocabulary by the experimental group**.**

Analysis of post-test

After two weeks teaching vocabulary with the use of graphs and pictures a post- test was conducted. Both the students of control group and experimental group took part in post- test assessment. It was analyzed between two groups and their performance was judged observing both the tests as well as pre-test and post-test

Test	N	Minimum	Maximum	Mean	Standard Deviation
Post-test Exp group	30	52	100	87.60	10.62
Post-test Cont group	30	48	100	80.70	13.01

Table no.2 (Description of statistical data of post- test)

From the above table of post-test result it is found that the mean score of experimental group in learning vocabulary is 87.60.The standard deviation of experimental group is 10.62. the mean score of control group in learning vocabulary is 80.70.The standard deviation of control group is 1001.Finally the result of post-test shows that experimental group is higher   in learning vocabulary than learning vocabulary by the control group**.**

Results and Findings

The researcher found following statistical analysis from both the groups and both the tests and here are significant impacts of pictures and graphs on ESL students.

Table no.3 The descriptive analysis of Post-test Covariance Dependent Variable

Source	Type III Sum of Square	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power[b]
Corrected Model	4334.223[a]	2	2167.111	27.188	.000	.488	54.376	1.000
Intercept	983.164	1	983.164	12.335	.001	.178	12.335	.932
Pre-test	3640.623	1	3640.623	45.674	.000	.445	45.674	1.000
Method	859.327	1	859.327	10.781	.002	.159	10.781	.898
Error	4543.377	57	79.708					
Total	434256.000	60						
Corrected Total	8877.600	59						

a.   R Squared = .488 (Adjusted R Squared = .470)

b.   Computed using alpha = .05

Results

Depending on the tests tables Between-Subject impacts we observed that the independent line variable (teaching method finds the F-value of the impact of teaching method 10.781) and the column labeled Sig the value is .002 where it is lower than 0.05 (alternative alpha level). It shows that both the groups, experimental and control groups are significantly different.

F-value of pretest is 45.67 and the column sign value is 0.000 which is less than 0.01 that shows covariate is significant. In dependent variable this value is 44.5 %(which is calculated multiplying partial eta square by 100).

Impact of using g pictures and graphs can be seen from the difference of pre-test and post-test of control group and experimental group. Their effect indicates that there is a significant difference between the scores of both the groups. In post-test the students learning vocabulary with the help of pictures and graph get better marks. Their achievement is evident from their statistical analysis.

The computation of mean scores also increased because in pre-test it was 84.53 and after treatment it raised to 87.60 and the improvement raised to 3.07.On the other hand the mean of control group in pre-test was 84.73 and after treatment teaching in a traditional way without using pictures and graphs the mean was 82.80, showing a decreasing in mean from pretest.

Findings

The study showed that students' proficiency level of vocabulary increased by using pictures and graph technique in teaching vocabulary at elementary school level. Because experimental group showed a better result after being taught vocabulary through using pictures and graphs. On the contrary the control group did not show such results because they were taught in a traditional way without using any picture or graph while teaching them.

It is explored in this research that Pictures and graphs played a significant role in improving the vocabulary learning because pictures and graphs helped the students to learn vocabulary in an easy way. Through pictures and shapes the students learn vocabulary through listening as well seeing because images and pictures are a concrete source of learning skills for the students at elementary level. The researcher found a significant difference between the two groups in building their vocabulary because in post-test the students of experimental group showed better learning than that of control group. Hence it is evident that pictures and graphs help students learning in their vocabulary.

Recommendations

Teachers should use a material that is relevant and helpful for their students' needs and level. Teaching vocabulary by using pictures will be more effective in this case.

● Using pictures in the educational process will be helpful in educational institutions.
● Switch from a traditional approach to teaching vocabulary to a more modern strategy, such as using visuals to create a new learning environment.
● Prepare students in educational institutions to use technology in the educational process in general and in English in particular.

● The Government should encourage the academic institutions to teach the vocabulary to the students studying in elementary schools with the use of pictures and graphs because concrete visual objects create concrete learning among the students.

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