International Journal of Multidisciplinary Research and Development
Online ISSN: 2349-4182, Print ISSN: 2349-5979, Impact Factor: RJIF 5.72
www.allsubjectjournal.com
Volume 3; Issue 9; September 2016; Page No. 94-97

Enhancing vocabulary acquisition through instructional strategy based on E-Learning

[1] Dr. Jaya Jaise, [2] Vidhya VS

[1] Associate Professor, School of Pedagogical Sciences, Mahatma Gandhi University, Kottayam, Kerala, India
[2] Research Scholar, School of Pedagogical Sciences, Mahatma Gandhi University, Kottayam, Kerala, India

Abstract
The purpose of the study was to evaluate the effectiveness of Instructional Strategy based on E-learning on Vocabulary Acquisition in English among Primary School Students. The Experimental Method with the Pretest-Posttest Nonequivalent-Groups Design was used for the study. The technique of simple random sampling was employed to collect data. The data was analyzed using Arithmetic Mean, Standard Deviation, Critical Ratio (t test) and Analysis of Covariance (F test). The findings of the study showed that the Instructional Strategy based on E-learning is very effective in enhancing Vocabulary Acquisition in English among Primary School Students.

Keywords: Primary School Students, E-learning, Arithmetic Mean, Standard Deviation

Introduction
Words are the tools we use to think, to express ideas and feelings, and to learn about the world. Because words are the very foundation of learning, improving students' vocabulary has become an educational priority. Student word knowledge is strongly linked with academic accomplishments, because a rich vocabulary is essential to successful reading comprehension. Vocabulary is usually defined as the stock of words used by a person, class or profession. Every individual uses several different types of vocabularies all having much in common, yet each distinctly different. The most basic of these are often designated as hearing vocabulary, spoken vocabulary, reading vocabulary and written vocabulary.
The vocabulary of any language is huge and its acquisition takes time, even for a native speaker. Research has concentrated more on how words are learnt than on what should be taught, though everyone agrees that a threshold of around 2000 to 3000 words is a requirement for further progress. Research suggests that extensive reading leads to good vocabulary gains, though this knowledge needs to be active, as in productive exercises. The teacher can also help the learner to become independent by teaching strategies and ensuring the availability of appropriate motivating materials.

Need and Significance of the study
Vocabulary is central to English language teaching because without sufficient vocabulary students are unable understand others or express their own ideas. The aim of teaching English is to enable them to use English with ease and comfort i.e. to use it instrumentally and interactively. Proper way of communication is possible only when they have a large amount of vocabulary. If students want to develop all the four skills like listening, speaking, reading and writing, first they should acquire a good fund of vocabulary. If they have high word power, they can express their ideas without any hesitation. When the student's hesitation in speaking is removed, automatically their self-concept increases.
It has been increasingly argued that computer technologies can support learning in a number of ways. Many features of the computer are considered to enhance vocabulary development and reading comprehension; e-learning is one of them. E-learning refers to computer-based systems that use various types of content, such as text, audio, video, graphics, animation, and interactivity. The key concepts of e-learning are thus 'computer-based' and 'interactive'.
All the above facts necessitate the importance of teaching vocabulary in school classes. So we must think about some provisions for improving vocabulary attainment. Giving prominence to this need, the investigators felt that a new instructional strategy like "Instructional Strategy based on E-learning", if proved effective, will be helpful for the teachers in this area of English language teaching. It gives an additional support for learning vocabulary. Moreover, it has been noticed that only a few studies have been conducted on E-learning in the Indian context. This is another pertinent factor that has encouraged the investigators to conduct a study of this kind.

Review of Related Literature
Afshari and Tavakoli (2016) [1] investigated the relationship between depth and breadth of vocabulary knowledge and the listening comprehension among EFL learners. The study also intended out whether there is a meaningful relationship between vocabulary knowledge and listening comprehension in general, and to determine which dimension of vocabulary knowledge is a better predictor of successful listening comprehension in particular. Data gathered through three tests including Vocabulary Knowledge Test (VLT), Word Associate Test (WAT), and standardized Listening Comprehension Test (LCT), from 32 EFL learners were analyzed and the findings revealed that there is a high and positive relationship among the three variables and also between the independent variables. Further analysis indicated that though both VLT and WAT contribute to listening comprehension, and that VLT is a better predictor of successful listening comprehension.
Madani and Nasrabadi Mahmoodi (2016) [7] studied the effectiveness of teaching English vocabulary through song to preschool young English Language Learners in Aligoodarz,

Iran. The participants of the study consisted of 103 preschool young learners, who were divided into two groups of experimental group and control group. The experimental groups consisted of 62 young learners and the control groups of 51 young learners at the age of six. The experimental groups instructed using song and the control groups were instructed using non-song methods. Twenty sessions were spent working on teaching vocabulary for each group. Before starting the treatment, an interview was conducted as a pretest by the teacher to confirm that learners did not have any prior knowledge of English. After finishing the treatment, the post-test was administered by the teacher to measure the amount of learning vocabulary items in each group. The data then was analyzed using the SPSS. The findings revealed that the experimental groups improved significantly in terms of vocabulary retention as compared to the control groups.

Lin (2014) [6] investigated whether computer-assisted collaborative learning is comparable with computer-free and individual learning; the study examined each of their effects on learning English vocabulary, followed by an analysis of their behavior patterns. In a junior high school in northern Taiwan, a normal classroom was first equipped with an interactive whiteboard and seven all-in-one touch screen desktop computers. All participants from three intact classes, 76 students in total, were asked to finish five review activities of the target English vocabulary and assigned to one of the following groups: the learning for the group of computer-supported collaboration took place in the technology-supported classroom whereas that of computer-free collaboration and that of computer-free non-collaboration in normal classrooms. The results of the vocabulary tests showed no significant differences among the three groups; those learning English vocabulary collaboratively in a technology-enhanced environment out-performed the other two groups in vocabulary retention. In addition, analyses of the group's behaviors' before the touch screen desktop computers echoed and explained their better performances than the other two groups.

Reynolds (2013) [9] studied the effect of freedom of reader choice on the incidental acquisition of vocabulary. This study aims to address this issue by exploring two research questions: (i) Is incidental vocabulary acquisition affected by whether reading material is selected by the learner or assigned by a computer system; and (ii) Is incidental vocabulary acquisition related to the learner's level of interest in the reading materials? Results suggest that the influence of reader choice on students' L2 is worthy of teachers' attention, as is the influence of autonomy on students' L2 vocabulary acquisition. Moreover, this investigation shows the benefit of using computers to provide students with the freedom to choose the articles they read.

Hypothesis of the study

The following hypothesis was formulated for the study:

Instructional Strategy based on E-learning is significantly more effective than Activity Oriented Method of Instruction in enhancing Vocabulary Acquisition in English among Primary School Students.

Objectives of the study

The major objectives of the study were

To compare the effectiveness of Instructional Strategy Based on E-learning and the Activity Oriented Method of Instruction in enhancing Vocabulary Acquisition in English among Primary School Students.

Methodology

The Experimental Method with the Pretest-Posttest Nonequivalent-Groups design was used to conduct the study. Teaching using Instructional Strategy based on E-learning for the Experimental Group and teaching using Activity Oriented Method of Instruction for the Control Group were the independent variables, while Vocabulary Acquisition in English was the dependent variable. The sample comprised 260 Standard VII Students.

The materials and tool used for the study were:

- Lesson Plans using Instructional Strategy based on E-learning.
- Lesson Plans using Activity Oriented Method of Instruction.
- Test on Vocabulary Acquisition in English. (Prepared and Standardized by the investigators)

The data was gathered, tabulated and analysed using statistical measures like Arithmetic Mean, Standard Deviation, Critical Ratio (t-test), Analysis of Variance (ANOVA) and Analysis of Covariance (ANCOVA).

Analysis of the Data

The Arithmetic Mean and Standard Deviations of the Pre-test, Post-test and Gain Scores on the Vocabulary Acquisition in English of the Experimental and Control Groups were computed and the data and results of the test of significance of difference in the Mean Scores are given in Table 1.

Table 1: Data and Results of Test of Significance of Difference between Mean Pre-test and Post-test and Gain Scores of Experimental and Control Groups on Vocabulary Acquisition in English

Test Scores	Groups	N	AM	SD	't' value	P
Pre-test	Experimental	135	10.79	1.49	0.42	*P>0.05
	Control	125	10.90	2.57		
Post-test	Experimental	135	30.06	3.99	29.30	**P< 0.01
	Control	125	17.03	3.09		
Gain	Experimental	135	19.27	3.35	38.09	**P< 0.01
	Control	125	6.13	2.11		
Result: *t value is not significant at 0.05 level ** t value is significant at 0.01 level						

From Table D, for df 258 (Total), $t_{0.05} = 1.97$ and $t_{0.01} = 2.59$

Table 1 shows that the Pre-test Scores of students in the Experimental and Control Groups do not differ significantly even at 0.05 level (obtained value of t=0.42). From the Mean Scores of the Experimental (M=10.79) and Control (M=10.90) Groups, it can be concluded that both the Groups of Primary School Students are identical with regard to their Pre-test Scores on Vocabulary Acquisition in English.

Table 1 also shows that the Post-test scores of students in the Experimental and Control Groups differ significantly at 0.01 level (obtained value of t =29.30). From the Mean Scores of the Experimental (M=30.06) and Control (M=17.03) Groups, it can be seen that the Experimental Group far excels the Control Group. It can thus be inferred that Instructional Strategy Based on E-learning is more effective than Activity Oriented Method of Instruction in enhancing Vocabulary Acquisition in English.

In Table 1, it can also be seen that the Gain Scores of students in the Experimental and Control Groups differ significantly at 0.01 level (obtained value of t=38.09). This finding reveals that Instructional Strategy Based on E-learning is more effective than Activity Oriented Method of Instruction in enhancing Vocabulary Acquisition in English and thus substantiates the previous finding.

The Analysis of Variance for the Pre-test Scores (X) and the Post-test Scores (Y) of the students taught using Instructional Strategy Based on E-learning and Activity Oriented Method of Instruction is presented in Table 2.

Table 2: Summary of Analysis of Variance of Pre- and Post-test Scores of Experimental and Control Groups on Vocabulary Acquisition in English

Source of Variation	df	SS_X	SS_Y	MS_X	MS_Y	F_X	F_Y
Among Means	1	0.81	11014.8	0.81	11014.8	0.19	858.71
Within Groups	258	1119.04	3309.4	4.34	12.83		
Total	259	1119.85	14324.2	-	-		
Result: F_X value is not significant F_Y value is significant at 0.01 level							

From Table F, for df 258 (Total), $F_{0.05} = 3.87$ and $F_{0.01} = 6.72$

Table 2 shows that the F_x value obtained is 0.19, which is less than the table value and hence not significant even at 0.05 level. This shows that there is no significant difference between the Pre-test Scores of Students in the Experimental and Control Groups on Vocabulary Acquisition in English.

Table 2 also shows that the F_Y value obtained is 858.71, which is significant at 0.01 level. This shows that both the Experimental and Control Groups differ significantly in the Post-test Scores on Vocabulary Acquisition in English.

The Total Sum of Squares and Adjusted Mean Square Variance for Post-test Scores are computed. The results of the Analysis of Covariance are presented in Table 3.

Table 3: Summary of Analysis of Covariance of Pre- and Post-test Scores of Experimental and Control Groups on Vocabulary Acquisition in English

Source of Variation	df	SS_X	SS_Y	SS_{XY}	SS_{YX}	MS_{YX}	SD_{YX}	F_{YX}
Among Means	1	0.81	11014.80	-94.20	11206.97	11206.97	2.83	1400.48
Within Groups	257	1119.04	3309.4	11207.0	2056.58	8.00		
Total	258	1119.85	14324.20	11112.77	13263.55	-		
Result: F_{YX} value is significant at 0.01 level								

From Table F, for df 257 (Total), $F_{0.01} = 6.72$

In Table 3, it can be seen that since the F_{YX} ratio (F_{YX} = 1400.48) is greater than the table value, it is significant at 0.01 level. The significant ratio for the Adjusted Post-test Scores shows that the final Mean Scores of Students in the Experimental and Control Groups differ significantly after they are adjusted for the difference in the Pre-test Scores.

The adjusted Mean for the Post-test Scores (Y Means) of students in the Experimental and Control Groups were computed. The data and results are shown in Table 4.

Table 4: Data for Adjusted Means of Post-test Scores on Vocabulary Acquisition in English of Experimental and Control Groups

Groups	N	M_X	M_Y	M_{YX} (adjusted)	't' value	P
Experimental	135	10.79	30.1	30.69	40.28	P<0.01
Control	125	10.90	17.0	16.47		
General Means	260	10.85	23.55	-		
Result: 't' value is significant at 0.01 level						

From Table D, df 257 (Total), $t_{0.01} = 2.59$

In Table 4, it can be seen that the difference in Adjusted Means for the Post-test Scores of the Experimental and Control Groups were tested for significance and 't' value was found to be significant at 0.01 level (obtained value of t=40.28). It may therefore be concluded that students exposed to Instructional Strategy Based on E-learning have better Vocabulary Acquisition as compared to those exposed to Activity Oriented Method of Instruction.

Conclusion

From the findings of the study it can thus be inferred that the Instructional Strategy based on E-learning is effective in enhancing Vocabulary Acquisition in English among Primary School Students.

Tenability of the Hypothesis

The formulated hypothesis is accepted based on the above findings.

Educational Implications of the Study

Instructional Strategy based on E-learning is important in the classroom since they enliven and enrich the classes and also help students and teachers alike. Some of the implications in education are:

- The findings of the study proved that the Instructional Strategy based on E-learning is more effective than Activity Oriented Method of Instruction for enhancing Vocabulary Acquisition in English. So teachers should incorporate Instructional Strategy based on E-learning in the teaching - learning process
- Instructional Strategy based on E-learning helps in holding the attention of students. It engages students and provides valuable learning opportunities.
- In order to facilitate all the language skills, teachers must give prominence to vocabulary development in their teaching.
- Instructional Strategy based on E-learning was found to be effective in arousing the interest of Primary School Students in the acquisition of vocabulary.
- Instructional Strategy based on E-learning helps teachers to deliver the content in an effective way, thereby helping learners to understand the content area thoroughly.
- Teachers should encourage students to use different types of E-resources.

References

1. Afshari, Tavakoli. The relationship between depth and breadth of vocabulary knowledge and Iranian EFL learners' listening comprehension. International Journal of Research Studies in Language Learning. 2016; 12(1):40-49.
2. Aggarwal JC. Educational Research - An introduction. New Delhi. Arya Book Depot, 1996.
3. Best JW, Khan JV. Research in Education. New Delhi: Prentice Hall of India Pvt Ltd, 1996.
4. Garrett HE. Statistics in psychology and education. Bombay: Vakils, Feffer and Simons Ltd.
5. Kona, Nira. (2009). How to teach vocabulary in the ELT classrooms? The journal of English Language Teaching. 1981; 46(2):19-25.
6. Lin *et al.* Learning English vocabulary collaboratively in a technology supported classroom. Turkish Online Journal of Educational Technology. 2014; 13(1):162-173.
7. Madani, Nasrabadi Mahmoodi. The effect of songs on vocabulary retention of preschool young English language learners. International Journal of Research Studies in Language Learning. 2016; 12(1):40-49.
8. Pulido D. The effect of cultural familiarity on incidental vocabulary acquisition through reading. The Reading Matrix. 2004; 4(2):20-53.
9. Reynolds, Lee B, Ba, Yi-Ling. Does the freedom of reader choice affect second language incidental vocabulary acquisition? British Journal of Educational Technology. 2013; 44(2):42-44.