



## THE IMPACT OF MULTIMEDIA GLOSSES ON VOCABULARY DEVELOPMENT OF SECOND LANGUAGE LEARNERS

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### ABSTRACT

The aim of this study is to investigate the impact of multimedia glosses on vocabulary learning. The researcher used experimental, descriptive, and analytical method. The participants were 60 high secondary school female students, divided into two groups experimental and control. A pre-test and a post-test were administered to the groups; along with the scores were analyzed using SPSS program. Accordingly, the study found out that the multimedia glosses group significantly outperformed than paper group in terms of short-term retention of incidentally learned vocabulary item. The researcher recommends that English teachers should place more emphasis on using multimedia glosses.

**Key-words:** Multimedia glosses, high secondary school learners, incidental vocabulary learning.

الهدف من هذه الدراسة استقصاء تأثير مسارد الوسائط المتعددة علي تعلم المفردات اللغوية. استخدمت الدراسة المنهج التجريبي-الوصفي-التحليلي. اشتملت عنية الدراسة عدد (60) طالبة من المرحلة الثانوية مقسمة علي مجموعتين: المجموعة التجريبية والمجموعة النمطية وخضعت المجموعتان الي اختبار قبلي وبعدي ومن ثم تم تحليل نتائجهما عن طريق استخدام برنامج الحزم الاحصائية للعلوم الانسانية حيث وجدت الدراسة ان المجموعة التجريبية تميزت في ادائها بصورة افضل من المجموعة النمطية علي اساس احتفاظها بالمفردات اللغوية التي تعلمتها لفترة قصيرة . وبناء علي ما سبق يوصي الباحث معلمي اللغة الانجليزية باعطاء المزيد من الاهتمام لاستخدام مسارد الوسائط المتعدد.

### Introduction

Vocabulary knowledge has a key role in successful reading. It is the central to any language teaching because without sufficient vocabulary students cannot understand others or express their own ideas. Wilkins(1972 p.111), wrote that "without grammar persons can convey very little , without vocabulary nothing can be conveyed. This reflects the researcher's experience as an English language teacher as foreign language, even without grammar, but some useful words and expressions some can often manage to communicate.

The EFL learners can enjoy reading if they do not look for unknown words in dictionary. On other hand lack of word meaning can lead to unsuccessful reading and the vocabulary learning will not happen, therefore, EFL learners need easy

tools to facilitate their learning process. According to Yoshii (2006) and Nation (2002) glossing can result in enhancing vocabulary learning among EFL learners through noticing to unknown vocabularies .Watanabe (1997), mentioned that glosses are valuable tools which facilitate foreign language reading process. Ko (2005) and Nation (2002) mentioned that the use of glosses by EFL learners is easier and it can facilitate reading flow in comparing to using dictionary which is time-consuming and make learners interrupt their reading process. Moreover, Nation (2002) refers to glosses as helpful tools that can make EFL learners more independent in reading activity. As the researchers studied the advantages of glossing in vocabulary learning, research question changed from effect of glossing to type of glossing. In their study ,Chun and Plass

(1996) investigated the effects of multimedia annotations on incidental vocabulary learning. They conducted three studies with learners in their second year of German who used Cyberbuch, that is one type of multimedia application offering different kinds of annotations (picture, text, video). The positive results of their research confirmed the effectiveness of different types of annotations on retention of new foreign vocabularies. Furthermore, this study showed that visual multimedia advance organizer helps recalling new vocabularies as well as reading comprehension, which emphasize the close link between vocabulary and reading comprehension. The results of the recall protocols showed that text plus picture annotations groups.

According to Khiyabani et al. (2014) who attempted to present the impact of multimedia on vocabulary learning, 56 high school students were divided into experimental and control groups each contained 28 participants. Multimedia techniques were used for teaching vocabulary to the experimental group. The results showed that the experimental group using multimedia glosses outperformed the control group in retention of vocabulary.

As a result of the previous studies showed, no consistency can be found in the findings of the studies in relation to various gloss type, and effectiveness of multimedia glosses on learning vocabulary still remains as an open question which needs more investigation. Accordingly, in this study the researcher aimed to address this issue from a new point of view.

#### **THE PREVIOUS STUDIES**

There are two main types in process of vocabulary learning: intentional and incidental (Huckin&Coady, 1999; Laufer & Hulstijn; 2001). In intentional vocabulary learning learners enhance their vocabulary knowledge through conscious cognitive processing such as repetition, mnemonics and rehearsal. However, new words are added to learners' vocabulary with a help of reading a passage or listening to a speech in incidental vocabulary learning. Glosses is one of strategies which facilitate vocabulary learning and reading comprehension. Nation, (1983) defines gloss as a short definition of an unfamiliar words. Nation (1999),

state four function of glosses on vocabulary learning. First, marginal glosses are easier to use in contrast to dictionary. Second, glosses include the notion of "consciousness- raising" and "input enhancement". Third, they support the "meaning-form connection" approach by relating words meaning. Fourth, learners are encouraged to lexical processing.

Recently. Multimedia has emerged in the field of language learning with the development and integration of computer and technology. Today, many language learners utilize different features of computer technology in order to improve vocabulary development as well as reading comprehension. As Beatty (2005) states, "multimedia tends to feature several media types including text, images, sound, video and /or animations" Beatty (2005) and Hooegeveen (1995) mention some advantages of multimedia in language learning such as promoting autonomous language learning, more effective and rapid transmitting of information and promoting curiosity and interest of learners, so researchers are paying attention to multimedia glosses as a new aid to help in L2 vocabulary development as well as reading comprehension. Segler, Pain and Sorace (2001) divided glosses into textual glosses, pictorial glosses, aural glosses and a variety of combinations related to them.

Chun and Plass (1996) investigated the impact of multimedia glosses on vocabulary learning and reading comprehension, their studies results indicated that text and pictures were the most effective and significant glosses in recalling new words. Lomicka (1998), as well investigates the effect of multimedia glosses on reading comprehension. In his study 12 university students Who registered in a French course were divided into three groups to read the text in three different conditions of full glosses, limited glosses and no glosses, also the students were asked to read think aloud during the reading process. The results of his study indicate that the only full glossing condition promoted reading comprehension.

Still other researchers have investigated the impact of other variables' along with the use of glosses, on vocabulary development. Jacobs (1994),

for example, has investigated the recall advantage of glossing by practicing different test of gloss types ( immediate vs. delayed). Holley and King (1971) also compare different glosses locations in text ( side – of – page, bottom-of – page,vs. glosses on an attached sheet.

All above studies, however, have brought up different results and, therefore, leave some room for further analysis of glossing under different condition.

#### **THEORITICAL FRAMEWORK**

The researcher has focused on some psychological theories which are ESL/EFL learners such as Dual Coding Hypothesis Paivio, (1991). According to Paivio's (1991) Dual Coding Theory, two separate symbolic systems can facilitate second language learning while they interconnect and work independently at the same time. Paivio noted that this simultaneity reinforces the recalling of the processed information and it also facilitates cueing from a system to another system. Double Coding information can work as a complement which gives the learners the opportunity to process the information twice that can result in longer retention of vocabularies that were learned newly. In this study the researcher provided the participants with multimedia glosses in order to maximize the possibility of dual information processing. It seems that the provision of multimedia glosses can result in better reading comprehension as well as longer vocabulary retention.

#### **QUESTION OF THE STUDY**

The present study aims to address the following question.

\* To what extent can the use of multimedia glosses help EFL learners to acquire L2 vocabulary?

#### **HYPOTHESIS OF THE STUDY**

The researcher is going to test to the following hypothesis.

\* The use of multimedia glosses can is very useful tool for EFL learners to acquire L2 vocabulary.

#### **METHODOLOGY OF THE STUDY**

##### **Participants and Setting**

The participants of this study were students of grade two in Alfarqu private High School in Omdorman (Umbada). They were female students and all aged between 15 and 16. The two classes consisted of a total number of 60 students: 30 in experimental group and 30 in control group. Two classes were instructed by the same teacher. They all had the same exposure to English through formal classes in high school .Similarly, due to belonging to same city, it was reasonable to suppose that they had a homogeneous EFL background. Furthermore, they were the same age and gender. The students in both groups were not aware about the research procedure, tests, and treatment.

##### **PROCEDUER OF THE STUDY**

A pre-test was set before the treatment began in both experimental and control groups. Same materials were used for both groups except for the medium of presentation. Two different types of presentations were used: multimedia glosses for experimental group and paper glosses for control group. The researcher provided students in experimental group reading an English test with multimedia glosses that were designed to help students to learn the unknown words and understand the text. The control group read the same text with paper glosses.

A post-test was administered after the treatment in both experimental and control group. The time allotted for the post test was 25 minutes. Also, both tests had an equal number of test items, 25. After scoring, the scores obtained on the tests were analyzed; the results are presented in the next section.

##### **RESULTS**

The results indicated that there was no significant difference between the two groups before the treatment. The descriptive statistic of the pre-test are shown in table 1.

Table (1) shows the differences between the two groups in pre –test before using the tow different types of presentations ( multimedia gloss and paper gloss )

Groups	$\bar{X}$	SD	DF	p-value	t-value	critical	sig
Experimental multimedia gloss	14.3	2.01	29	0.076	2.53	2.03	0.05
Control group paper gloss	13.1	1.34					

For the scores gained from the pretest (of vocabulary), the mean value was calculated. Mean for the control group was (13.1) and for the experimental group it was (14.3). Moreover a T-test was employed on these scores for hypothesis testing

**Hypotheses testing for the post -test**

Table (2) shows the differences between the two groups in post –test after using the tow different types of presentations ( multimedia gloss and paper gloss )

Groups	$\bar{X}$	SD	DF	p-value	t-value	critical	sig
Experimental multimedia gloss	16.4	3.01	29	0.002	4.6	2.03	0.05
Control group paper gloss	13.9	1.32					

For the scores gained from the posttest (a valid test in vocabulary taken by the researcher), the mean value was calculated. Mean for the control group was (13.9) and for the experimental group it was (16.4). Moreover a T-test was employed on these scores for hypothesis testing purposes. As the result of T-test suggests (P-value (0.002) being less than(0.05), there is a meaningful difference between two groups. Therefore the null hypothesis ( **there is no significant differences in vocabulary learning between two groups subjected to multimedia gloss and paper gloss** ) is rejected and the alternative hypothesis stating that **“there is significant differences in vocabulary learning between two groups subjected to multimedia gloss and paper gloss”** is accepted.

The results of the present study indicate that using multimedia gloss can be applied as a useful technique for teaching new vocabularies. It should be mentioned that due to the limited number of the participants in the present study, it is suggested to employ larger samples and population for generalization of the results and finding in the future. The results also reveal that multimedia glosses plays an important role in vocabulary developments of English learners at high schools level , because it facilitate the learning process for

purposes. As the result of T-test suggests (P-value 0.076 being greater than (0.05), our null hypothesis is accepted since we have not applied the intended strategy. There is not significance different between two groups.

new words. It is easy for EFL as compare to paper glosses, and arouse the interest of English learning towards the English language learning. They can learn more vocabulary by using multimedia glosses for a long period of time without any hesitation or boredom.

**DISCUSSION**

In this study, multimedia glosses were use to improve EFL learners’ attention to unfamiliar words, to encourage them to make informed glosses about the best option and therefore to improve their vocabulary acquisition. Comparisons were then made between multimedia glosses and paper glosses to find out which would serve these purposes best. The results show that for both purposes of vocabulary learning and retention multimedia glosses were more effective.

In the answer to the research question, the results of the present study was accordance with the results of the study conducted by Khiyabani et al. (2014) who claimed that using multimedia was more effective in acquisition and learning unknown vocabulary than traditional methods. Furthermore, the better performance of participants in multimedia gloss condition in vocabulary acquisition, confirmed the Dual Coding Hypothesis (Paive, 1991) according to which two separate

symbolic systems help L2 learners acquire language better.

#### CONCOLOSION

In this study, the findings suggest that multimedia glosses are more effective in learning vocabulary, so it is suggested to the English teachers to use multimedia glosses in teaching vocabulary that led to be better understanding. Using multimedia glosses can help teachers to save time and energy in the class. Regarding the new technologies in the 21th century, it is time to find new methods of teaching vocabulary to increase the size of students' vocabulary knowledge. Additionally, learners can their vocabulary knowledge through new ways. However the present study has been conducted with secondary schools level . Other studies can be done with advanced level students.

#### REFERENCES

Beatty, K, (2005), Teaching and researching computer-Assisted language learning. Beijing: Foreign language Teaching and Research Press.

Chun, D.M., & Plass, J. L.(1995). Effects of multimedia annotations on vocabulary acquisition, *The Modern Language Journal*, 80(2), 183-198.

Chun,D.and J. Plass. (1996). Facilitating Reading Comprehension with Multimedia, *System*, 24(4).503-519.

Holley and King (1971), F, M. & King, J. K. (1971) vocabulary glosses in foreign language reading materials . *language learning*, 21, 213-219.

Hoogeveen, M. (1995), Toward a new multimedia paradigm: Is multimedia assisted instruction really effective? *E D- MEDIA 95 Proceedings*. 348-353.

Huckin, J. Coady , (1999), Incidental vocabulary learning in a Second Language Learning. A review, *Studies in Second Language Acquisition* 21 181-193.

Jacobs (1994). What lurks in the margin: Use of vocabulary glosses as a strategy in a second language reading. *Issue in Applied linguistics*, 5 (1), 115-137

Khiyabani, H., Ghonsooly, B., and Ghabanchi, Z. (2014). Using multimedia in teaching vocabulary in High school class. *Journal of Advances in English Language Teaching: www,European-science.com/jaelt*,vol.2, No.1,pp1-13ISSN 1805-8957

Ko.M. H. (2005). Glosses Comprehension and strategy use. *Reading in a Foreign Language*,17 (2), 125-143.

Laufer, B., & Hulstin, J. H. (2001). Incidental vocabulary acquisition in a second language: The construct of task – induced involvement. *Applied Linguistics*, 22(1), 1-26.

Lomicka, L.L. (1989), “ To gloss or not to gloss”, An investigation of reading comprehension online. *Language Learning & Technology*, 1 (2), 41-50.

Nation, I. S. P (1983). Teaching and learning vocabulary. Wellington: English Language Institute, Victoria University.

Nation, I. S P. (2002). Learning Vocabulary in another Language. The Cambridge Applied Linguistics Series. Cambridge University Press.

Paivio,A (1991).Dual Coding Theory: Retrospective and current status. *Canadian Journal of Psychology*, 45,255-289.

Watanabe, Y. (1997). Input, intake, and retention: Effects of increased processing on incidental learning of foreign language vocabulary. *Studies in Second Language Acquisition*, 19,287-307.

Wilkins, D. (1972), *Linguistics in Language Teaching*. Cambridge CPU.Wilkins (1977)

Yoshii, M. (2006). L1 and L2 glosses: Their effects on incidental vocabulary learning. *Language Learning & Technology*, 10 (3), 85-101.