

Effectiveness of Using ICT Generated Word Games in Improving the Vocabulary Skills of ALS A & E Learners

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Abstract—The heart of language development is vocabulary learning. As words are learned, they become embedded in a network of semantic connections to other words. Indeed, vocabulary is one of the most important tools to facilitate communications. Because vocabulary is so important, it is wise to increase the size of it whenever he/she can. The size of one's vocabulary is a good indicator of his/her comprehension ability when reading new material. The researcher as computer advocate, is challenge to conduct this study in order to evaluate the effectiveness of using ICT generated word games in improving the vocabulary skills of the ALS A & E learners in selected barangays in the Municipality of Kananga, Leyte for she found out that the previous quarters, most of her learners did not pass the English test due to lack of vocabulary skills. An intervention plan was formulated based on the result of the study. The data revealed that there is significant difference between the scores of the pre-test and post-test performance of the ALS A & E learners. This means that ICT generated word games is effective in improving the vocabulary skills of the learners. It is recommended to implement the formulated Intervention Plan in order to improve the performance of the ALS learners.

Keywords — *Effectiveness, Using ICT Generated Word Games, Improving, Vocabulary Skills, ALS A&E Learners*

I. Introduction

The use of multimedia in education has made different learning processes, producing a meaningful learning. Previous researches show that game-based learning has had an important role in increasing the level of learning and motivation, along with promoting imagination in learners. According to Patricia Deubel (2006), digital game-based learning has the ability to engage and motivate students and present learning experiences while helping long-term memory and providing practical experience. Deubel suggests that in order for teachers to effectively use game-based learning in the classroom, they must first find games without violent that facilitate planning and

problem-solving and relate to the curriculum. Deubel advocates role-playing, simulation, and adventure games because they often appeal to the development of more than just one skill. Deubel also notes the function of game-based learning in the development of vocabulary skills and the enhancement of mental quickness (Deubel, 2006).

In the last two decades, language education has also seen developments in digital technologies that have made significant contributions to computer-assisted language learning (CALL) along similar lines. The research presented in this special issue draws on the wider discourse of CALL; to examine exactly *how* digital games can be integrated into instructed language learning contexts and curricula as well as how *effective* they are in promoting so-called deep learning in autonomous contexts (Nahid Shahriarpour, 2014). Drawing on learners' out-of-school use of digital games to enhance motivation, some research claim that they may contribute to language learning and further studies have been undertaken in the last few years utilizing Web 2.0 and Massive Multiuser Online Role-Playing Games (MMORPGs). Assertions that digital games could become an integral part of language teaching have been made at varying points over the last two decades, but are clearly yet to be realized (Nahid Shahriarpour, 2014). Nevertheless, advances in network-based learning and the large, online communities, now using games have stimulated renewed interest in the field.

Griffiths (2003) asserts that digital games have “great variety,” while attracting students of various demographic backgrounds. They also help students set and work towards achievement of goals, provide helpful feedback, and maintain records for measurement purposes. Furthermore, Griffiths suggests that the interactive nature of video games stimulates learning and encourages participants to challenge new topics or knowledge. Griffiths also notes that video games can help students develop computer skills that they may need in a society that continues to develop technologically.

Alemi (2010), for example, studied on the use of games with reference to the motivation that they can provide for the students. This study attempted to investigate the role of using word games in expanding the learner's vocabulary. The different learners take different roles of games. They can reveal different words or meaning differently from their perspective which the other learners can learn from those perspectives as the suggestion. In addition, word games can reflect the learners themselves in their classroom and teachers can assess teaching process by themselves through word games as well. These motivate them to the succeeded goal.

Under the approach of ICT, the introduction of tools in the educational system aims to bring new experiences that promote language learning and interaction in the 21st century. Consequently, the role of the students within the learning of English process is affected because of circumstances that permit them to create a desire to learn “perhaps the learners love the subject they have chosen, or maybe they are simply interested in seeing what it is like” (Harmer, 2009).

Callister and Burbules (cited in Diaz & Jansson, 2011) agree that new technologies not only constitute a set of tools for the service of teaching and learning activities, but they make up an environment, a space, a cyberspace, in which human interactions take place. Additionally,

computer language teaching programs offer the opportunity to study texts, perform grammar and vocabulary and motivate learners to use the language by interacting in a different scenario.

Teachers usually engage in games before the conduct of the lesson. The researcher being an ALS implementer, usually started the lesson by doing spelling and vocabulary activity. It was observed that ALS learners in both elementary and secondary levels have poor or low performance in English vocabulary and spelling skills maybe because they have not been in school for so many years. With this observation, the researcher decided to find ways on how to enhance vocabulary skills and at the same time make it more fun and engaging. Being an ICT advocate and a 21st century teacher, the researcher come up with an idea of using full range of digital-age tools to improve student's engagement and achievement especially on enhancing their vocabulary skills. With the use of vocabulary quiz with compelling images will help students remember new words faster. In this regard, the researcher would like to assess if using and ICT generated word games will help enhance vocabulary skills among her ALS learners. With the findings of the study, the researcher will be able to formulate an intervention plan useful in teaching vocabulary skills in English.

It is in the rationale that the researcher who is currently teaching in the above mentioned local, would like to delve worthy research undertaking that will benefit the school he is currently teaching and that of his Graduate Program.

This study evaluated the effectiveness of using ICT generated word games in improving vocabulary skills of ALS A & E learners in selected ALS implementing schools in Kananga III District, Leyte Division. A proposed intervention plan was formulated based on the findings of the study.

Specifically, this study sought to answer the following questions:

1. What is the pre-test performance of the ALS A & E learners before the integration of ICT generated word games in teaching vocabulary skills?
2. What is the post-test performance of the ALS A & E learners after the integration of ICT generated word games in teaching vocabulary skills?
3. Is there a significant difference between the pre-test and post-test performance of the ALS A & E learners before and after the integration of ICT generated word games in teaching vocabulary skills?
4. What intervention plan can be proposed based on the findings of this study?

II. Methodology

Design. This study employed quasi-experimental research design to evaluate the effectiveness of using ICT generated word games in improving vocabulary skills of ALS A&E learners in selected ALS implementing schools in Kananga III District. Classes in Brgy. Montebello, Naghalin and San Ignacio in Kananga III District, Leyte Division were the main locale of the study. The thirty-two (32) learners enrolled in A& E for both EL and JHS in SY 2019-2020

in the said locale are the main respondents of the study and a 20-item researcher-made test questions in English which focused on reading comprehension particularly vocabulary skills was utilized. This research focused in evaluating the effectiveness of using ICT generated word games in improving vocabulary skills of ALS A&E learners in selected ALS implementing schools and its relationship. A Proposed Intervention Plan based on the findings of the study is the output.

Sampling. There are 32 pupils involved in this study. The research instruments were distributed personally with consent from the parents stating the participation of their child in the study.

Research Procedure. The researcher prepared the research design and tools to be utilized in the study. Approval and recommendation from the Panel of Examiner of the Graduate Studies was sought. A letter request to conduct this study was forwarded to the Office of the Schools Division Superintendent. Upon approval, permission from the District Supervisor and School Head was secured before the actual gathering of data. Validation of the instruments through the School Head, District Supervisor and Division ALS Coordinator was sought. Orientation of the participants and administration of the questionnaire was done. Permission from the parents was secured. After accomplishing the pre-test intervention was given within the 6-week period then a post-test was administered. Test questionnaires were collected. Data were tallied and submitted for statistical treatment. Analysis and Interpretation of Data. Making of Proposed Intervention Plan followed.

Ethical Issues. The right to conduct the study was strictly adhered through the approval of the Schools Division Superintendent of the Division, District Supervisor of the District, and school principal. Orientation of the respondents was done using face to face modality. In the orientation, issues and concerns were addressed and consent to be included in the study were signed.

Treatment of Data. The Simple Percentage and Weighted Mean were employed to evaluate the effectiveness of using ICT generated word games in improving vocabulary skills of ALS A&E learners in selected ALS implementing schools. T-test of mean difference was used to determine the significant difference between pre-test and post-test scores.

III. Results and Discussion

Table 1
Pre-test Performance of ALS A & E Learners

DATA	EXPERIMENTAL GROUP (ENGLISH)	Interpretation
NO. OF PUPILS	32	Very Low
NO. OF ITEMS	20	
TOTAL SCORE	307	
MEAN	9.59	
MPS	47.97	

Table 1 presents the pre-test performance of ALS A & E learners. It was revealed on the table that the total score got from the 32 learners in a 20-item test is 307 with an average mean of 9.59 and mean percentage score of 47.97 which is interpreted as very low. This means that ALS A & E learners really had a hard time in understanding what they are reading for they lack vocabulary skills. This implies that these learners need intervention on how to improve their vocabulary skills in order for them to understand their lessons. According to Anderson (2013), comprehension results from the activation of schemas, which provide framework for explaining objects and events within a text. Schema can be thought of as mental filing cabinets that allow individuals to process, encode, organize and retrieve information.

Similarly, psycholinguistic theory proposes that readers do not rely exclusively on textual clues to make meaning, but instead make predictions as they read (Unrau, et al., 2013). A readers' background knowledge interacts with conceptual abilities and processing strategies to produce comprehension (Carrell, et al., 1983 as cited by Unrau, et al., (2013). Both schema and psycholinguistic theories demonstrate the active role of learners when constructing meaning and play a role in vocabulary instruction when students are asked to connect new words to synonyms and antonyms, analyze the morphological features of words (Rasincki, et al., 2017 & Kuo, et al., 2007), create concept maps, graphic organizers, and semantic maps (Little, 2011), and when using prior knowledge to determine word meanings (Burgoyne, et al., 2013).

Table 2
Post-Test Performance of ALS A & E Learners

DATA	EXPERIMENTAL GROUP (ENGLISH)	Interpretation
NO. OF PUPILS	32	High
NO. OF ITEMS	20	
TOTAL SCORE	530	
MEAN	17	
MPS	82.81	

Table 2 presents the posttest performance of ALS A & E learners. It was revealed on the table that the total score got from the 32 learners in a 20-item test after using ICT generated word games in teaching vocabulary lessons is 530 with an average mean of 17.00 and mean percentage score of 82.81 which is interpreted as high. This means that after using the ICT generated word games in teaching vocabulary lessons, the performance of the learners improved. This implies that using ICT generated word games are effective in improving the vocabulary skills of the learners. In regard to Mark Griffiths (2003), video or digital games supply a great tool for managing educational research. Griffiths asserts that digital games have “great variety,” while attracting students of various demographic backgrounds. They also help students set and work towards achievement of goals, provide helpful feedback, and maintain records for measurement purposes. Furthermore, Griffiths suggests that the interactive nature of video games stimulates learning and encourages participants to challenge new topics or knowledge. Griffiths also notes that video games can help students develop computer skills that they may need in a society that continues to develop technologically.

Table 3
Test of Difference Between the Scores in the Pre-Test and Post-Test

Aspects	Test Scores		p value	Level of Sig	Decision	Interpretation
Test Scores	Pre-Test	47.97	0.00	0.05	Reject H _o	Significant
	Post-Test	82.81				

Table 3 presents the test of difference between the scores in the pre-test and posttest performance of ALS A & E learners. It was revealed on the table that the pre-test score was 47.97 and the posttest score was 82.81 and p value of 0.00 at .05 level of significance, so null hypothesis is rejected. This means that there is significant difference between the scores in the pre-test and

posttest. This implies that by using the ICT generated word games, the vocabulary skills of the ALS A & E learners had improved. The result of the present study was supported by Alemi (2010) where he studied on the use of games with reference to the motivation that they can provided for the students. This study attempted to investigate the role of using word games in expanding the learner's vocabulary. The different learners take different roles of games. They can reveal different words or meaning differently from their perspective which the other learners can learn from those perspectives as the suggestions. In addition, word games can reflect learners themselves in their classroom and teachers can assess teaching process by themselves through word games as well. These motivate them to the succeeding goals.

IV. Conclusion

The data revealed that there is significant difference between the scores of the pre-test and post-test performance of the ALS A & E learners. This means that ICT generated word games is effective in improving the vocabulary skills of the learners.

V. Recommendations

1. The proposed intervention plan formulated should be utilized.
2. School Heads should provide technical assistance to the teachers in using ICT generated word games in teaching vocabulary skills;
3. Teachers should enhance their teaching competencies in ICT employing gaming activities or strategies through attending LAC sessions, trainings and seminars;
4. Teachers should encourage parents to support their children by providing materials to be used during teaching-learning process;
5. School Heads should encourage teachers for further learning on ICT integration in teaching like joining the Microsoft Education and other IT related courses; and
6. Future researchers should replicate this study to include different locale and include different variables aside from the mentioned in this study.

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The author was born on January 21, 1982, at Brgy. Don Carlos Revilla, Ormoc City, Leyte. She was married for twenty years to Mr. Dexter L. Caliwán and has three children. She's presently residing at Laray, Brgy. Naghalin, Kananga, Leyte. She finished her elementary education at Ipil Central School, Brgy. Ipil, Ormoc City, Leyte in the year 1994-1995 and continued her quest for education and was able to finish her secondary education at Ipil National High School, Ormoc City, Leyte in the year 2019-2020. She took up Associate in Computer Technology at System Technology Institute-Ormoc and graduated in the year 2002. She also enrolled and finished her Bachelor in Elementary Education at Jose Navarro Polytechnic College, Kananga, Leyte in the year 2014-2015. She took up a Master of Arts in Education major in Supervision and Administration with complete academic requirements at Western Leyte College of Ormoc City, Inc.

She was teaching for six years and a Teacher III at Montebello Central School. Her first station was Tugbong Central School for 3 years handling Grade 5 level and was transferred to Montebello Central School, Kananga III District, Division of Leyte. Currently, she was teaching as an Alternative Learning System teacher and handling BLP, Elementary, and Junior High School levels of learners. She is Microsoft Certified Educator of Leyte Division, Microsoft Coach and facilitated various training as speaker or facilitator both in ALS (non-formal) and formal education.)