

ESL PRIMARY SCHOOL LEARNERS' ENGAGEMENT IN ONLINE VOCABULARY GAMES

Nur Fairuz Hj A. Kadir, Abdul Rahim Hj Salam, Adlina Abdul Samad

1.0 Introduction

Learning English as a second language needs learners to acquire the main skills such as listening, reading, speaking, writing as well as learning vocabulary. According to Hornby (1995), the total number of words in a language is called vocabulary. In order to be proficient in English, learners need to learn vocabulary. Not using the most appropriate words in our daily lives will give a negative impact on us as people might get our message wrongly thus making our lives difficult whether at our work place, at home or in public.

As learning vocabulary is very important, therefore it is crucial for learners to find effective ways to learn vocabulary. One of the ways is learning vocabulary through games. Games can be defined as “an organized activity that usually has a particular task or objective, a set of rules, competition between players and communication between players by spoken or written language” (Richards, Platt & Platt, 1995). As referred to Hadfield (1984), activity with rules, a goal and an element of fun are specified as games. For children of age seven to ten, they always have interest in recognizing and knowing new words and repeat new words so that they can memorize them. This is based on Piaget's theory, cited in Wadsworth (2003). As games are very close to children's nature, where they like to play and learn, using vocabulary games to learn vocabulary is applicable. Based on numerous scholars (Chan & Lin, 2000; Jiang, 2008; Kuo, 2008; Robinson, 1960; Zeng, 2008), games are believed to be useful in strengthening children's motivation and self-confidence in learning English.

In this era of globalization, cutting edge technology is useful to managing our lives in so many aspects including education. With the fast moving technology that we have in the world, internet is not to be missed. There are many online education applications that being used by learners to learn. This is where online vocabulary games take place in assisting students to learn English vocabulary.

2.0 The Problem with Learning Vocabulary

Nguyen & Khuat (2003) stated that learning English vocabulary for children in primary school has been detected as a boring activity in the classroom. Even though learning vocabulary is so important, but the problem is children do not like vocabulary practices because they feel bored because learners need to memorize words and complete all exercises given by the teacher.

Teachers usually do drilling activity so that learners will have strong memory on the vocabulary or new words being introduced. Having that in mind, learners will not really understand the words they learn as they just memorize them and they tend to lose interest in learning the vocabulary. The children also feel that learning vocabulary is unimportant as they just use the language in the English class and not outside the classroom. Students nowadays need activities that are more challenging, creative, fun and student-centred.

There are factors that affect students' achievement in learning that can be referred to a framework by Haveman and Wolfe (1995). It conceptualizes the production of children's educational achievement. As referred to Aikens & Barbarin (2008), children with low achievement in language acquisition come from low socio-economic status. In Malaysia, students studying in primary schools come from different background of socio-economic status. The socio-economic factor that varies among primary school children will make a difference on students' level of language skills, vocabulary and also their self-confidence as well as their self-esteem.

A relaxed environment in the classroom is a great challenge to create. In Malaysia, students need to learn six years of English in primary school but they are still incompetent in using the language. According to Maesin (2009), language environment that is not conducive would have less opportunity for students to use the language.

Children like to learn using many kinds of materials and activities which are colourful, attractive and interesting to them. Due to the teaching scenario in Malaysia that teachers are answerable and responsible for so many works including administrative jobs, teachers might not have enough time to prepare and bring all those materials to the classroom. So, children usually learn through boring activities and using the same materials when learning in the classroom.

As referred to Krashen's Theory, the Affective Filter Hypothesis states that the important affective variables are student's motivation to learn the language, a low anxiety learning environment, self-confidence and self-esteem. To promote vocabulary learning, we must make sure that the affective filter is low, so that the acquisition will occur. If the affective filter is high, the learning process will be blocked. By using online vocabulary games, children will not feel that they are forced to learn and they will be more focused in learning. This is agreed by Richard-Amato (1988) that mentioned games can lower learner's anxiety and help the acquisition of input.

Therefore, to alleviate the problems stated above, we can use the help of online vocabulary games to engage learners to learn vocabulary more effectively. Schultz & Fisher (1988) agreed on this. Online games have multimedia features which are interactive and colourful. Learners nowadays love edutainment which gives more impact to their learning. They have the autonomy when learning through online vocabulary games. This is important as stated in the Input Hypothesis which claims that for acquisition to take place, learners must be presented with comprehensible input, for example the language they can understand, just slightly beyond their current level of competency ($i+1$). In this case, learners will not have pressure from

the teacher or peers. This conducive environment where the learners can have at school, home or on the go will make the learners comfortable in learning English vocabulary.

3.0 Advantages of Vocabulary Games for Primary School Children

Learning vocabulary is very important for primary school children. One of the ways to attract children to learn vocabulary is through educational games. Game is an activity that you do to have some fun (Hornby, 1995). There are many advantages in learning vocabulary through educational games. Firstly, children love to learn vocabulary through educational games as children do not feel that they are forced to learn and they will be more focused in learning. Richard-Amato (1988) mentioned that games can lower learner's anxiety and help the acquisition of input. According to Hansen (1994), games are motivating, entertaining and promoting a better learning environment that learners can express their feelings and opinion. Secondly, learning vocabulary through games will make the learning experience far more enjoyable, interesting and effective. This is agreed by Uberman (1998) in her observation where learners are more interested to learn and they practise the language incidentally.

Through playing computer games also, students will learn to think critically, to solve problem, to be creative and innovative to finish the game. Next, computer games also gave space for students to communicate and collaborate with their friends and fellow players. Finally, through computer game, they can learn career and lifelong learning skills such as flexibility, adaptability, initiative, self-direction, leadership and responsibility. These advantages will lead the learners to be competent in the future which they have to face many challenges especially in the era of digital technology.

In the 21st century, internet connection is available almost everywhere and learning vocabulary through online games is more favourable to learners. This will add up the benefits of using online games in learning vocabulary. Learners can learn vocabulary anywhere, anytime and at their own pace. Besides that, they will have the autonomy where they have the full control of the learning process. They can choose the right level of the challenge and this will make the vocabulary learning more effective. By using new technology gadget, learners will be more engaged when learning and learners feel that they are being given an individual attention. Learners will feel more comfortable learning vocabulary without pressure from teacher or peers. This will also complement the classroom learning where giving learners an individual attention from a teacher who has to control a whole class is a challenge. These show that using online games is an effective and efficient way in learning vocabulary due to the current situations where internet is available to help us in many ways including education.

Computer game potentials are not limited to motivation and engagement factors. In today's world, the integration of computer games in the education system is much more significant since it has opened up various opportunities for students to gain knowledge and at the

same time, learn multiple skills. Prensky (2010) in his work asserts that in the near future, computer games will be an important skill for students to acquire in the 21st century. According to Prensky (2006), computer game is a powerful tool that allows students to develop complex 21st century skills which the conventional teaching and learning process cannot achieve.

4.0 Importance of the Study

The purpose of this study is to investigate how an online vocabulary game engages students. The technology advancement around the world which assists the vocabulary learning is viewed to be worthwhile. In Malaysia, the industry of educational game is still at the early stage but it is progressing. According to Roslina and Azizah (2009), studies in educational games design, development and effectiveness of usage in Malaysia need to be done in generating knowledge that tailored for Malaysian students. Hence, research and development in the area of integrating information and communication technology (ICT) in education is need to be done aggressively in order to be well equipped for Vision 2020 (Lubis, 2009).

Using online vocabulary game as a tool to enhance vocabulary learning is one way of integrating ICT in education. It is indeed an interesting way to learn vocabulary where students are more engaged in vocabulary learning when using online vocabulary games than traditionally learning vocabulary in the classroom. Wood (2001) agreed that using learning games are more effective than using textbooks in attracting students to learn. Therefore the feasibility of using online vocabulary game to assist vocabulary learning and increase vocabulary should be investigated further. Thus, this research seeks answers to how an online vocabulary game could engage students to learn vocabulary.

Hopefully this research could contribute in finding new ways or new methods that are innovative, creative, fun, interesting and can contribute to pedagogical implications. Learning vocabulary is essential to all and it is best to learn vocabulary since young. As vocabulary is the foundation of the language, learners are expected to master at least the most common words used in everyday usage which are called the high frequency words. When one has enough vocabulary, it is easier for him or her to master the language skills such as listening, speaking, reading and writing.

In the context of Malaysia, the Malaysian education system is based on the national curriculum and caters for all public schools in Malaysia. Students in primary schools are guided by the syllabus according to the subjects that they learn. Now, the new curriculum for primary school is gradually changing to the new syllabus which is the *Kurikulum Standard Sekolah Rendah* (KSSR). Based on the syllabus, students are focusing on listening, speaking, reading, writing, language arts and they need to master all the words in the word list provided in the syllabus. This is the standard that they need to achieve in primary school before entering secondary school. So, students are expected to take an initiative in acquiring the language as efficient as possible.

One of the efforts that students can take is by integrating their English vocabulary learning with games. Randel (1992) mentioned that educational games that are subject oriented are more effective than other types of educational games. This integration can be done as information and communication technology is no longer a hindrance. Internet based applications can be used for free and students nowadays are exposed to the usage of computers. Based on five schools in Malaysia, 92% of students have experienced playing computer games and this is proven by Rubijesmin (2007) in his study.

Since learning vocabulary can be a boring activity in a traditional classroom, children need to find an innovative way of learning a language. One of the ways is using online vocabulary games that can capture children's attention and focus on the vocabulary learning for a longer period of time. This will definitely avoid pressure from teachers and parents who usually force them to learn vocabulary in order to master English Language. This is very important as kids especially during primary school years are interested to learn while playing. They love to learn through educational games and nowadays, edutainment is one of the famous ways for children to learn.

Computer games allow learners to learn vocabulary at their own pace by choosing the level of the activity as they have the autonomy. They can check their answers on the spot and the learning process is faster. Learners will become motivated every time they get the right answer. The special features of the online vocabulary games such as the colourful buttons and pages with sounds and animation will definitely attract learners to learn. Learners also can learn anytime and anywhere they like as long as there is an internet connection to their computer or gadget.

Through online vocabulary games, learners are hoped to be more confident and interested in learning vocabulary since it reduces anxiety through fun and active learning which eventually enhance their English vocabulary. With the help of online vocabulary games, learners will spend more time to learn English vocabulary as if they have a personal tutor to teach and guide them.

Potentially, this research could provide additional and alternative ideas to the traditional way of learning vocabulary in the classroom. Thus, everyone should play an important role in achieving the learning success. Teachers, parents and learners themselves are hoped to be informed by this research and work hand in hand for the success of vocabulary learning among children. Considering the importance of online vocabulary games in learning vocabulary among children, this research is worth further investigation.

5.0 Methodology

A qualitative research that uses the case study methodology was applied. Thematic analysis was used in data analysis. The feasibility of the idea was also explored in order to get a fair evaluation.

According to Patton (2002), the purpose of this research paradigm is to get an in-depth understanding of a phenomenon through a comprehensive inquiry of a rather small group of respondents. In order to ensure validity and reliability, researchers collected data from many sources: observation, vocabulary lists and recorded interviews to get reliability of the findings and to crosscheck findings. Multiple sources were chosen to make sure the strengths and weaknesses of each data source can complement each other. To produce high quality data for qualitative approach methodology, triangulation of the qualitative data sources is crucial. According to Creswell (1994), the qualitative data collected from multiple sources will develop, expand and complement the findings. These were the reasons why qualitative approach methodology was employed for this study.

A pilot study using the chosen online vocabulary game, *Word Confusion* game was conducted by the researcher. This was to simulate the actual research which used the exact research procedure except for the number of participants involved. A grade A and E student who did not participate in the actual research were involved in this pilot study. It is important for the researcher to do a small experiment before the larger study is executed. This is to ensure that the research procedure is applicable, the logistic is tested and the information can be gathered to address any possible problems with reference to data collection. The information can be used to check whether there are any problems in the design proposed so that the researcher can address them earlier before the actual research commences.

For this research, the online vocabulary game selected was *Word Confusion* as it is available online at <http://www.funbrain.com/whichword/>. Refer Appendix F. There are many reasons for choosing this particular game. Apart from having fun and interesting essence in the game, some of the reasons are it is user-friendly, it can be played online for free, it has the interactive and multimedia features such as buttons, immediate feedback and impromptu checking that shows correct or incorrect answer. It also has features of stating the score as well as the total number of correct and incorrect answers. It gives reward for correct answer in the forms of fresh salad bowl, star and praise. It is attractive with colours, it has colourful pictures, it has instructions, it has levels and it also states date and time for self-monitoring.

The researcher found challenges on the timing. The students had only one hour per session as English period was one hour daily. They did not have enough time if they play *Word Confusion* game for an hour solely as proposed earlier by the researcher. The reason was there were two more procedures which were the vocabulary listing and recorded interviews that needed to be done after they played *Word Confusion* game. So, the students were asked to play

Word Confusion game for eleven minutes. After that, they were asked to list the new vocabulary that they learned after each session of learning through *Word Confusion* game and then they were asked to go through recorded interview sessions.

After amendments on the timing had been made, the selected participants for actual research were asked to learn vocabulary through a specific online vocabulary game chosen by the researcher which was the *Word Confusion* game. The participants were five students who had been chosen earlier who met the criteria of using computer with internet connection at home for two to six hours weekly and had experienced playing at least three educational online games at home. The researcher asked each participant to go through three sessions of learning vocabulary by using online vocabulary game as the first session is for the participants to get familiar with *Word Confusion* game including the features of the game. During the first session, the participants looked very excited as they were chosen to learn vocabulary using the online vocabulary game. They were briefed on the procedure, timing and how to play the *Word Confusion* game. It was seen that the participants were more familiar with *Word Confusion* game during the second session and the third session. Observations were being done by the researcher throughout the sessions and the researcher jotted down notes on happenings such as participants' behaviour and facial expressions when they played the particular online vocabulary game.

Then, the participants were asked to make a vocabulary list learned from the online vocabulary game. The vocabulary listing was done exactly after each participant played the online vocabulary game. They were asked to list only the new vocabulary that they learned after each session of playing the online vocabulary game to show how many new words and what were the new words they learned. They were not allowed to look at the game or discuss with friends while listing the new vocabulary learned. They were asked to think and recall the new words they learned after each session playing the online vocabulary game.

After that, recorded interview was done on every student after each session of learning through the online vocabulary game. This was to check the validity of the data taken earlier. The data from observations, vocabulary list learnt by the participants and recorded interviews were gathered to be analysed accordingly. The researcher then analysed the data using thematic analysis to describe how online vocabulary games helped students learn the new vocabulary. Later, the researcher compared vocabulary learning between each participant. The researcher found out which participant learnt the most throughout the vocabulary learning sessions using the particular online vocabulary game. The observations, vocabulary lists and recorded interviews were designed to answer the research question.

6.0 The Result on Students' Engagement

The important thing for an effective learning to take place is ensuring the students to be engaged. This is agreed by Dickey (2005) and De Freitas (2006). According to Annetta (2008), “Games can be used as an engaging and motivating supplement that provides background and content in an environment in which they are familiar and comfortable. When the learners are engaged and motivated, even the uninterested learners will take the challenge of the game to solve problems (Kara-Soteriou, 2010). Learners also will get interested to reflect on their online vocabulary game sessions and discuss about the styles in learning vocabulary. Based on Reid (1987), students from Asian cultures are highly visual. As the saying goes, ‘Practice makes perfect’, the students will get used to the learning skills with minimal guidance from the teachers or parents. So engagement is very crucial in order for learning and acquisition of vocabulary to take place.

Based on the observation checklists (Appendix C), participants expressed themselves through their reactions and verbal. The researcher identified the duration of attentiveness during the learning sessions and observed how the participants reacted during the process of learning using the online vocabulary game. The researcher jotted down the reactions and facial expressions of the participants such as they clapped hands, frowned, nodded head, said positive words and smiled.

From the observations, in terms of attentiveness, the researcher found out that within the duration of eleven minutes allocated for each session of playing the *Word Confusion* game, all participants were attentively learning. The researcher identified that all participants showed positive reactions and could keep focus even after five minutes learning vocabulary using the online game. They kept on looking at the monitor screen to answer questions from the online vocabulary game. They did not even turn around or did other things except looking at the monitor to answer the questions attentively for eleven minutes duration given by the researcher. The researcher identified all participants showed seriousness when answering the difficult questions. They frowned and took more than three seconds to click on the answers for the difficult questions. The participants also ignored any disturbance sounds came from surroundings. Refer Appendix C. From the observations, it was clear that the participants were attentive in learning vocabulary through *Word Confusion* game.

Based on the observations, students portrayed positive reactions when using the online vocabulary game. From the observations of the first session, participants were eager to learn using the *Word Confusion* game. Each of them came to the computer laboratory according to the timing which was set earlier. The researcher briefed on the procedure, timing and how to play the *Word Confusion* game. From the first observation, Participant A smiled when she got full marks and said “I did it!”. Participant B nodded head when she got the right answers and said “Yes!...”. Participant C and D looked serious when they answered the questions. Participant C said “Oh...Okay...” when he got the feedback after he answered the questions wrongly. Participant E said “Now I understand...” when he read the feedback as he answered the questions wrongly.

From the second session, the researcher could detect positive reactions from all of the participants. All participants came according to the timing given by the researcher and they looked more familiar with the *Word Confusion* game. From the observations, Participant A

nodded her head when she answered the questions correctly and said “Great!”. Participant B smiled happily when she answered the questions correctly and said “Yeah!”. Participants C clapped his hands when he got the correct answers. Participant D said “Wow!” when he answered the questions correctly and participant E smiled and said “Yes!”.

From the third session, the researcher could identify positive reactions from the participants. The participants came on time and looked very familiar with the *Word Confusion* game. Participant A showed her positive reactions by clapping her hands and said “Waa...” when she got full marks. Participant B smiled when she answered the questions correctly. Participant C nodded his head when he got correct answers. Participant D said “I will try again...” when he got the wrong answers and Participant E said “Great!” when he got the answers right.

Data from recorded interview sessions added the strengths to the data from observations. The researcher asked questions on how the *Word Confusion* game engaged learners to learn vocabulary. Based on the data collected from a recorded interview question (Appendix E) on how this online vocabulary game engaged participant to learn vocabulary, there were certain features of the online vocabulary game that assisted learners to learn, acquire and increase vocabulary. These features also helped in sustaining the learners’ excitement in learning vocabulary.

From the visual aspect, the features were the use of colours for texts, pictures and animations. Based on the question from recorded interview on how this online vocabulary game engaged participant to learn vocabulary, Participant B mentioned, “The pictures, texts and animations are very colourful. I am excited and interested. The text is easy to be read as the font is just the right size and the colours are simply nice to see”. This condition made the learners sustained their interest to learn using this online vocabulary game.

Other than visual aspect, there was an option for the learners to choose the level of questions that was suitable to their level. Participant C said, “I can choose the suitable level for me”. The structure of the questions was not complex as to suit the primary school students’ level. They could choose either ‘easy’ or ‘hard’ level. This was to make sure that they would have the autonomy when learning through online vocabulary games. The autonomy is important for the learners to have the most suitable level for themselves as stated in the Input Hypothesis which claims that for acquisition to take place, learners must be presented with comprehensible input. It means that the language they can understand must be just slightly beyond their current level of competency (i+1) (Krashen, 1988). This is so important because if the level is too high, the learners will get frustrated in learning the vocabulary. In the end, the vocabulary acquisition will not happen. Another important part of autonomy is the students will eventually become independent learners that will lead to lifelong learning. So, the feature of level choices is something that needs attention from the learners.

In this game, learners have to get as many correct answers as they can in order to help ‘Regan the Vegan’ in this game to make fresh salad. Participant D said, “I like the reward

system. The more correct answers I get the more bowls of fresh salad I can get for ‘Regan the Vegan’ to eat”. The learners need to choose the correct word to complete each sentence. The learners also will get praises when they have finished the game. They will get praises like ‘Nice Work!’, ‘Congratulations!’, ‘Great Job!’ and many more. Other than that, they will get a star stating ‘clever’.

Other than that, this game also offers feedback that resembles learning with a tutor. As tutor always gives feedback in terms of right or wrong answers, this game also provide that feature. Let us look at the examples. If the students get the answer correct, it will state ‘Right!’ and if the answer is wrong, it will state ‘**Oops**, you chose **too**. It should be: There will be **two** people for lunch’. This feature is really needed by the learners as they learn independently. The game has been created to have the real context as learning is effectively happens when there is a real environment or context. On top of that, there is a score to show the learners how many questions they got correct out of 20 questions. This score feedback also will make the learners want to try better to get a better score next time. Participant E said, “I can see my score after I finished playing the game”.

Other than that, this game also states date and time after each session finishes. With this feature, students can keep track on their performance at a specific time and they can compare on their arrays of marks. This will also motivate them to perform better in their next game play. There is also no time limit to answer each question. This is to make sure there will be no pressure for them to think and to avoid them from accidentally answering it with wrong answer.

On top of that, this online vocabulary game is user friendly. Participant A mentioned, “This game is user friendly because I have no problem to play the online vocabulary game”. Learners can just go to the website and click the link to this game and the learners can start playing the game. Since it is a free game to be played, young learners will definitely enjoy it. This online game also offers to be available anywhere and anytime the learners would like to learn. So, they can learn independently at home, school or on the move. This online vocabulary game also does not have complex instructions for the learners to master before they can start playing. This will absolutely help the first time users of this game to play with ease. The downloading part also plays an important role. This game needs only a few seconds to be ready and to go from one question to another takes around one second, provided the internet connection is fine. To choose an answer for each question is another simple thing to do. The learners need to click on the chosen answer and right after that a feedback together with the next question will appear. The simple yet interesting interface will also grab learners’ attention to learn the vocabulary. These user friendly features will definitely make this game a chosen game for young learners especially the primary kids to learn vocabulary.

When the participants were asked about the duration of playing the game, Participant A mentioned, “I played the game for more than an hour daily”. When she was asked about the place where she played the online vocabulary game, she answered “I usually play this game at home.” Participant B answered “I played this game for an hour everyday” when she was asked about the duration of playing the game. She answered “I play *Word Confusion* game at home”

when she was asked about the place where she played this particular game. Participant C was asked about the duration and place where he played the Word Confusion game and he answered “I play this game for half an hour a day”. “I play *Word Confusion* game at home”. For Participant D, when he was asked the same questions, he answered “I play this game for thirty minutes daily”. “I normally play this game at home.” For Participant E, he answered “I played for one hour every day”. “I sometimes play this game at home and sometimes on the go using my i-pad”.

From the findings above, the researcher found out that the Word Confusion game engaged learners in learning vocabulary. This was explained by having the data on the duration of attentiveness and the positive reactions that sustained within the given duration of playing this particular game. It was further discussed upon receiving the data on the duration and place where they use the Word Confusion game. All participants responded they learned vocabulary using this online vocabulary game at home daily for half an hour or more. One of the respondents even played this particular game when he was on the go.

7.0 Conclusion

In conclusion, it was discovered that students were positively engaged, learned, acquired and increased their vocabulary in a conducive learning environment with the help of the online vocabulary game. In other words, the online vocabulary game gives benefits to the primary school children to learn, acquire and increase their vocabulary in an encouraging environment. Based on the observation checklists (Appendix C) and recorded interview sessions (Appendix E), all participants were engaged to learn the vocabulary through *Word Confusion* game. The participants were attentive and positively expressed themselves through reactions and verbal. They could learn attentively for more than eleven minutes and they played for thirty minutes or more every day at home. They felt happy to learn and stress free environment helped them to learn better. Through the recorded interview sessions, it was discovered that the features of the online vocabulary game helped the students to be engaged in learning vocabulary.

Apart from that, based on the findings, without stress, pressure and anxious feelings, the students will get to learn vocabulary in a better way. The shy students will not feel peer pressure from the good students. This will make them more confident and they can learn vocabulary in a more effective way. The features of the online vocabulary game are really helpful for the learners to sustain their interest in learning vocabulary. When they are able to control their own learning, the process of vocabulary learning will run smoothly. Once they are engaged to the online vocabulary game, the students will automatically learn the vocabulary. They will keep learning with minimum supervision which will also lead to a lifelong learning when they become independent learners. The adaptation that comes from the real world also influences the students’ process of learning, acquiring and increasing vocabulary level positively.

REFERENCES

- Aikens, N.L., & Barbarin, O.A. (2008). Socioeconomic differences in reading trajectories: The contribution of family, neighborhood, and school contexts. *Journal of Educational Psychology, 100*(2), 235 - 251.
- Annetta, L. A. (2008). Video games in education: Why they should be used and how they are being used. *Theory Into Practice, 47*(3), 229-239.
- Chan, Y. C., & Lin, L. C. (2000). Competitive and cooperative games in EFL elementary school classroom. *Proceedings of ROCMELLA 2000, National Taipei University of Education, 123-147.*
- Creswell, J. W. (1994). *Research Design: Qualitative and Quantitative Approaches*. Thousand Oaks, California: SAGE Publications, Inc.
- De Freitas S. (2006). Using games and simulations for supporting learning”. In C. Martin & L. Murray (Eds.). Learning, Media and Technology Special Issue on Gaming. 31(4), 343-358.
- Dickey, M.D. (2005). “Engaging by design: How engagement strategies in popular computer and video games can inform instructional design”. *Educational Technology Research and Development, 53*, 67-83.
- Hadfield, J. (1984). *Elementary communication games*. London: Nelson.
- Hansen, F. A. (1994). *Testing Testing: Social Consequences of the Examined Life*. University of California Press, California.

- Haveman, R., & Wolfe, B. (1995). The Determinants of Children's Attainments: A Review of Methods and Findings. *Journal of Economic Literature*, 33(4): 1829-1878
- Hornby, M. S. (1995). *The Turns of Translation Studies: New Paradigms or Shifting Viewpoints?*. John Benjamins Pub Co.
- Jiang, L. (2008). *The use of games in teaching children English* (Unpublished master's thesis). Shandong University, Shandong province, China.
- Kara-Soteriou, J. (2010). Computers in the classroom: Video games for the disengaged (and not only) students. *The NERA Journal*, 45(2), 94-101.
- Kuo, Y. L. (2008). *The effect of games in fifth graders' English speaking ability in an elementary school in Taipei County* (Unpublished master's thesis). National Taipei University of Education, Taipei, Taiwan.
- Krashen, S. (1988). *Second Language Acquisition and Second Language Learning*. Prentice-Hall International.
- Lubis. (2009). Teaching and learning process with integration of ICT: a study of smart schools in Malaysia. *WSEAS Transactions on Information Science and Applications*, 8(6), 1380-1390.
- Maesin. (2009). A Study of Collaborative Learning among Malaysian Undergraduates. *Asian Social Science*, 5 (7), 70-76.
- Nguyen, T. T. H. & Khuat, T. T. N. (2003) The effectiveness of learning vocabulary through games, *Asian EFL Journal Quarterly*, 5(4). Retrieved from <http://www.asian-efl journal.com>
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). London: SAGE

Publications, Inc.

Prensky, M. (2006). *Don't Bother Me Mom - I'm Learning*. Minnesota: Paragon House.

Prensky, M. (2010). *Teaching Digital Natives: Partnering for Real Learning*. California: Corwin.

Randel. (1992). The effectiveness of games for educational purposes: a review of recent research. *Simulation & Gaming*, 23, 261-276.

Reid, J. (1987). The learning style preferences of ESL students, *TESOL Quarterly*, 21, 87-111.

Richard-Amato, P. (1988). *Making It Happen: Interactions in the Second Language Classroom*. Longman, New York.

Richards, J. C., Platt, J., & Platt, H. (1995). *Longman dictionary of language teaching & applied linguistics*. Beijing: Foreign Language Teaching and Research Press.

Robinson, K. (1960). *English teaching in south-east Asia*. London: Evan Brothers, Ltd.

Roslina, I., & Azizah, J. (2009). *Educational Games (eg) Design Framework: Combination of Game Design, Pedagogy and Content Modeling*. Paper presented at International Conference on Electrical Engineering and Informatics, Selangor, Malaysia.

Rubjesmin, A. L. (2007). *Understanding Malaysian students as gamers: experience*. Paper Presented at Conference on Digital Interactive Media in Entertainment and Arts, Perth, Australia.

Schultz, M. & Fisher, A. (1988). *Games for all reasons: interacting in the language classroom*. Research Reading MARA. Addison, Wesley.

Uberman, A. (1998, January-March). 'The use of games for vocabulary presentation and revision'. *Forum*, 36(1), 20-27. Retrieved February 12, 2006, from <http://exchanges.state.gov/forum/vols/vol36/no1/p20.htm> .

Wadsworth, B. J. (2003). *Piaget's Theory of Cognitive and Affective Development: Foundations of Constructivism*. Allyn and Bacon Classics Edition (5th Edition).

Wood, J. (2001). Can software support children's vocabulary development?. *Language Learning & Technology*, 5(1), 166–201.

Zheng, M. H. (2008). *Game in the primary English teaching* (Unpublished master's thesis). Nanjing Normal University, Nanjing province, China.

APPENDIX A

CONSENT FORM

The study “Online Vocabulary Games to Promote Vocabulary Acquisition Among Primary School Students” is conducted to explore alternative, creative, interesting and innovative way of teaching and learning vocabulary. Your child’s participation is entirely voluntary and there is no expected risk during the session. Your child’s performance and any information obtained during the course of the study will remain confidential. Your child’s name will be replaced with a code for the purpose of coding and analysis of data. Only the researcher will have access to the codes.

There are three sessions in this research that need your child’s participation. If you agree to let your child to participate in this study, your child will be asked to play an online vocabulary game to learn vocabulary for eleven minutes for each session. While playing, your child will be observed by the researcher on the reactions towards the online vocabulary game and your child will also be listing all new words learned from playing the online vocabulary game. After that, your child will be asked to participate in recorded interview on his/her experiences playing the online vocabulary game in learning vocabulary.

I understand the above information and voluntarily consent for my child to participate in this study of my own child’s free will. My identity and my child’s identity will be protected.

Signature of parent

Parent’s Name:

I.C No:

Date:

Signature of student

Student’s Name:

I.C No:

Date:

APPENDIX B

ICT Club Survey Form

Name:

Class :

Answer the questions below:

1. How long do you use computer with internet connection at home?

2. Do you have any experience playing at least three online educational computer games?

3. How long do you play the online educational games at home ?

4. What is your grade for English subject for the school final examination?

APPENDIX C

Observation Checklist

Day:

Date:

Time:

Place:

Name of participant:

Grade of participant:

Tick the behaviour and facial expressions:

- 1. Clapping hands
- 2. Frowning
- 3. Nodding head
- 4. Smiling
- 5. Say positive words

6. Minutes of engagement: _____

Notes:

APPENDIX D

Vocabulary List

List all new words that you have learned from this session of playing online vocabulary game.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

15.

16.

17.

APPENDIX E

Sample of Recorded Interview Questions

1. How do you feel when you play this online vocabulary game?

“I feel happy, excited and interested to learn vocabulary using this online game as it is a new way of learning vocabulary”.

2. How did this game engage you to learn vocabulary?

“The colours and pictures keep me engaged to learn vocabulary...”

3. What is the duration for you to play *Word Confusion* game per session and where do you play it?

“I play this game for more than one hour at home...”

4. How did you think and choose the answer?

“Usually I think of the most suitable answer for each question. For the questions that I am not sure how to answer, I will try to use the word that I understand.”

APPENDIX F

Screenshots of *Word Confusion* game



Figure 1.1: Screenshot of *Word Confusion* game with instructions.



Figure 1.2: Screenshot of immediate feedback of right answer and

fresh salad bowl reward.



Figure 1.3: Screenshot of immediate feedback of wrong answer.



Figure 1.4: Screenshot of score, date and time.



Figure 1.5: Screenshot of total number of correct and incorrect answers.