



Bachelor of Education in Language Studies (English Major) A4B036- Year 4

Final Report for

ENG4900 Honours Project

A Study on the Effectiveness of Using

Domino for Consolidating Vocabulary in

Upper Primary ESL Classrooms

Presented by LAU Wing Sum, Jojo

Date Submitted: 10th May, 2015

Tutor's name: Dr. Xie Qin

Word Count: 6535



ABSTRACT

The present study utilized pre-tests, post-test and interviews to investigate the effect of using domino games for consolidation on the vocabulary development of upper primary ESL learners. Participants were students from primary 4 (N=66). Both groups were taught vocabulary using traditional teaching method. However, the experimental group students were exposed to domino game as a reinforcement while the controlled group received traditional method for consolidation by doing fill-in-the-blanks worksheets. Post-tests were conducted to both groups with a purpose to test students' immediate vocabulary learning in the two circumstances aforementioned. The score of the vocabulary tests were compared through independent sample t-tests. To obtain participants' internal effect towards domino games, semi-structured interviews were administered. Interviewees showed preference towards domino. The data obtained confirmed the usefulness of domino games as a teaching device for vocabulary reinforcement. Nevertheless, students' performance increased by a smaller scale in Trial 3. This study found out that the over-use of domino triggered off students' loss of interests and this revealed that every interesting games should not be repetitively employed within a short period of time.

TABLE OF CONTENT

ABSTRACT

TABLE OF CONTENT

1. INTRODUCTION

2. LITERATURE REVIEW

2.1 Significance of vocabulary learning

2.2 Usefulness of games in vocabulary learning

2.2.1 *Provide relaxing atmosphere*

2.2.2 *Sustain students' interests and attention*

2.2.3 *Caters for learners' differences*

2.2.4 *Purposeful communication takes place*

2.3 The present study

3. METHODOLOGY

3.1 Purpose and significance of the study

3.2 Research Methods

3.3 Setting

3.4 Participants

3.5 Data Collection Procedure

3.6 Instrument

3.6.1 Pre- and post- tests

3.6.2 Interview questions

3.7 Data Analysis

3.7.1 Pre- and post-test

3.7.2 Interviews

4. RESULTS AND FINDINGS

4.1 Pre- and post- tests

4.1.1 Trial 1

4.1.2 Trial 2

4.1.3 Trial 3

4.1.4 Overall (Trial 1 to 3)

4.2 Interviews

4.2.1 Students' perception and attitudes towards traditional methods

4.2.2 Students' perception and attitudes towards domino games

5. DISCUSSIONS

5.1 Usefulness of domino for vocabulary consolidation

5.2 Providing relaxing atmosphere

5.3 Sustain students' interests and attention

5.4 Caters for learners' differences

6. LIMITATIONS OF THE STUDY

7. CONTRIBUTIONS AND SUGGESTIONS FOR FURTHER RESEARCH

8. CONCLUSION

9. APPENDICES

Appendix 1: Domino Maker

Appendix 2: Rules for Domino

Appendix 3: Consolidation worksheet for Trial 1

Appendix 4: Consolidation worksheet for Trial 2

Appendix 5: Consolidation worksheet for Trial 3

Appendix 6: Domino for Trial 1

Appendix 7: Domino for Trial 2

Appendix 8: Domino for Trial 3

Appendix 9: PowerPoint for vocabulary teaching in Trial 1

Appendix 10: PowerPoint for vocabulary teaching in Trial 2

Appendix 11: PowerPoint for vocabulary teaching in Trial 3

Appendix 12: Pre-test used in Trial 1

Appendix 13: Post-test used in Trial 1 (*Controlled group*)

Appendix 14: Post-test used in Trial 1 (*Experimental group*)

Appendix 15: Pre-test used in Trial 2

Appendix 16: Post-test used in Trial 2 (*Controlled group*)

Appendix 17: Post-test used in Trial 2 (*Experimental group*)

Appendix 18: Pre-test used in Trial 3

Appendix 19: Post-test used in Trial 3 (*Controlled group*)

Appendix 20: Post-test used in Trial 3 (*Experimental group*)

Appendix 21: Interview questions

10. REFERENCES

1. **INTRODUCTION**

Vocabulary learning is viewed as an area that is of vital importance in English as second language (ESL) teaching and learning. It is, however, the retention of learnt vocabularies is perhaps the most challenging part in second language learning (Holden, 1999).

There is always mounting criticisms over the most successful way for vocabulary teaching (Coady & Huckin, 1997). Students take negative views towards the rote and mechanical strategies in learning vocabulary (Nguyen and Khuat, 2003). Existing studies provided insights into the usefulness of games in learning English vocabulary in classrooms. Though games are being regarded as a useful tool to increase student awareness, the application of word game in the teaching of vocabulary is often be neglected due to its impracticality in rigid curriculum and teachers' fully-occupied teaching schedules (Alemi, 2010).

Domino games for vocabulary learning refers to the matching of cards end to end by putting the correct pictures and the nouns together (Lewis, 2000) (See Figure 1).

Domino is one of the common and easy ways to prepare games in classroom to recycle vocabulary; It has the advantages of ‘being fun, competitive, and consequently memorable,’ (Schmitt and McCarthy, 1997). It is an actual fact that this game can be devised conveniently on websites (see Appendix 1) and requires relatively less time in playing it and explaining the rules.



Figure 1. Domino cards

The labour-saving domino game suits the Hong Kong context where a majority of schools’ teachers have lack of time to produce additional learning and teaching materials other than those readily provided by the textbook publishing companies.

The ease of devising tailor-made dominos for consolidating vocabulary and the time required for playing the game increase the practicality of the application of game in class. As a corollary, an experimental research was administered to evaluate the

effectiveness of employing domino games in the upper primary ESL classrooms of Hong Kong schools via pre- and post-tests as well as interviews to address the following research questions:

1. How does the use of domino games for consolidation affect the vocabulary development of upper primary ESL learners?
2. How does the use of domino games for consolidation affect motivation and enjoyment of the upper primary ESL learners in their vocabulary learning?

Null hypothesis (H₀): The use of domino games for consolidation have no significant effect on ESL learners' vocabulary development and their motivation and enjoyment in vocabulary learning.

Alternative hypothesis (H): The use of domino games for consolidation have significant effect on ESL learners' vocabulary development and their motivation and enjoyment in vocabulary learning.

2. LITERATURE REVIEW

There are literatures that give support to the significance of vocabulary and the usefulness of games in vocabulary learning. Research studies were also conducted on the effectiveness of a variety of word games for teaching and retention of vocabulary in classrooms of different contexts.

2.1 Significance of vocabulary learning

‘If language structure makes up the skeleton of language, then it is vocabulary that provides the vital organs and flesh,’ (Harmer, 1991, p.153). Vocabulary knowledge is crucial for the success of English learning (Alemi, 2010; Coady and Huckin, 1997).

Words are the basic unit of language form that people will not be able to communicate and express ideas in an effective way when their vocabulary knowledge is inadequate (Tavıl & İşısağ, 2009). Therefore, vocabulary plays a decisive role in English learning as it links the speaking, writing, reading and listening skills together (Lee, 1995; Nguyen and Khuat, 2003). Channell (1998) and Carter (1992) emphasized

that vocabulary should be learnt as a separate activity instead of a part of grammar or reading lesson. Laufer (1997) also underscored that the vocabulary accuracy and adequacy is more essential than grammatical awareness. As such, vocabulary learning should be one of the main fields of study in language learning (Channell, 1998; Martin-Chang et al., 2007).

The language ability enhances alongside with vocabulary improvement (Linse, 2006). Having limited vocabulary is seen as a barrier that prevents pupils from learning the language; insufficient vocabulary size and knowledge lead to the challenges on reading and comprehension (Laufer, 1989). If there are obstacles affect learners from learning that language, they may gradually lose their interests (Blachowicz & Fisher, 2010).

2.2 Usefulness of games in vocabulary learning

‘Language games that serve the function of drills are effective with young learners and can be used more’ (CDC, 2004, p.129). Games is efficient for adding interests to issues that may not be interesting (Wright, Betteridge& Buckby, 2005). The exercise

of games is effective in reinforcing and improving students' vocabulary knowledge (Alemi, 2010; Uberman, 1998).

Games in fact carry a special role in ESL teaching as they work as a facilitator of pupils' language learning (Tompkins & Blanchfield, 2008). In accordance with Robin (2001), young children can actively learn a second language through games. Games are activities that can call on pupils to reflect meta-cognitively on words, word parts and context (Blachowicz & Fisher 2004). Also, the use of games can develop domains of words and relatedness with the reason that games engage pupils in practicing and rehearsing the words (Graves et al., 2013).

2.2.1 Provide relaxing atmosphere

Games are of crucial importance for English language learners to provide enjoyment, motivation, relaxation and at the same time encourage students to use English in a more communicative and creative manner (Cunningham, 2009).

While no one would question the pleasure that can be brought about by the use of games in learning, the implementation of vocabulary games by all means helps

learners to build up the vocabulary in a relaxing way by clearing stressful moments (Celce-Murcia & Macintosh, 1979; Aslanabadi& Rasouli., 2013; Tavıl & İşisağ, 2009). The pleasant and relaxing atmosphere supplied by the execution of games can lessen students' negative stress and hence makes the vocabulary acquisition more likely (Aslanabadi& Rasouli., 2013; Richard-Amato, 1988; Nguyen & Khuat, 2003).

2.2.2 Sustain students' interests and attention

Games is a delightful experience of learning and it provides a pleasurable learning atmosphere which motivates students to learn (Aslanabadi& Rasouli, 2013). It is clear that game-based vocabulary teaching capture students' attention more easily than mechanical exercises (Tavıl & İşisağ, 2009). In spite of the importance of vocabulary in language learning, 'learning burdens' which refers to the amount of endeavour required to learn it lead to the inefficiency and demotivation in ESL learning (Nation, 2001). Graves et al. (2013) underlined that using games in teaching vocabulary encourage pupils to actively engage with. With motivation and interests, it is of a higher tendency for learners to access the vocabulary in memory (Aslanabadi& Rasouli., 2013).

2.2.3 Caters for learners' differences

Vocabulary games can be used to address specific learners' needs (Alemi, 2010). It provides shy students with opportunities to voluntarily involve and to express their opinions and feelings in a less anxious situation (Hansen, 1994; Nguyen & Khuat, 2003). Lower ability learners can actively engaged in the games as they do not need to worry about the grades, criticism or punishment (Crookal, 1990; Taheri, 2014). Abdikhah (1998), moreover, stated that games are functional in minimizing the inhibition and this allows shy and timid learners who are not tend to involve in class work feel more at ease and free to engage in the learning process.

2.2.4 Purposeful communication takes place

On the report of Haycraft (1978), '[g]ames are an agreeable way of getting a class to use its initiative in English' (p. 94). Games bring authentic situations to the confinement of the classroom and these for sure enable purposeful communication to take place between learners as they may have to exchange ideas during the games (Freeman, 1986; Huyen and Nga, 2003).

‘Vocabulary is best introduced in context using language games and tasks,’ as highlighted by CDC (2004, p. 164). Vocabulary games create real world contexts for the vocabulary items and these triggers off authentic communication (Freeman, 1986). Games are useful in language teaching as they can provide pupils meaningful contexts (Wright, Betteridge and Buckby, 1984).

2.3 The present study

Studies on vocabulary games were conducted by different researchers. Alemi (2010) worked on the effect of word games on vocabulary retention by surveying English as foreign language (EFL) learners in third-grade junior high-school. In the study, participants from both experimental and controlled group were first taught by traditional method, nevertheless, experimental group received vocabulary games as a treatment before doing the post-test. The findings revealed that there was positive influence of word games on pupils’ vocabulary development.

Nguyen & Khuat (2003) have researched the effectiveness of using games in vocabulary learning under the EFL context of a Vietnamese school by administering

interviews as the instrument. They focused on the perception and attitudes of the students towards the games. The results showed that the games brought about advantages and effectiveness in vocabulary learning in a wide range of ways. For example, it makes pupils to feel relaxed and they enjoyed the class. Pupils also become more interested in the lessons as games successfully worked as a motivator in the language learning.

Taheri (2014) looked in the effect of using language games on vocabulary retention of Iranian EFL learners in elementary level. The execution of game-based teaching on vocabulary only took place in the experimental group while the controlled group are being taught by using traditional methods such as definition, drills and fill-in-the-blanks. Understanding the essence of long-term retrieval of learnt vocabularies, there were post-tests to test the immediate effect of word games, delayed post-tests after 2 weeks and 6 weeks respectively to test the long-term effect of vocabulary games on participants. The results demonstrated significant differences in delayed post-tests and it implied the vocabulary games were helpful for long-term memory.

Hui & Chen (2012) put their focus on how vocabulary games affected the lexical growth and retention of EFL learners who are university freshmen of low-motivation in English. The research took place in Taiwan and it is implemented through testing the effectiveness of selected vocabulary games which are poker, Chinese chess and go bang. Pre-test, mid-test and retention test were administered and the results showed that the use of games can successfully help reluctant learners to ‘gain and retain new lexicons effectively’ (Hui & Chen, 2012, p. 571). It showed that games in this case created repeated exposures to learners in gaining accesses of vocabulary items.

Aslanabadi & Rasouli (2013) carried out research to explore the effect of online language teaching games on the improvement of the EFL vocabulary knowledge of Iranian students. The study found that the kindergarten students enjoyed using new technological gadgets such as computers to learn vocabulary items. Research on online vocabulary games as a tool for teaching and learning vocabulary was investigated by Yip & Kwan (2006) too. The study has demonstrated that learners have a tendency to learn better with the aid of online games in vocabulary teaching. In addition, the vocabulary items also tended to retain for a longer period of time in comparison to the simply face-to face lessons without accessing the online games.

Florence (2006) studied the effectiveness of online games in vocabulary learning of some university students. The outcome was positive and it turned down the null hypothesis. Hu and Deng (2007) had a study on multimedia vocabulary teaching and the learners demonstrated favorable efficiency in boosting their vocabulary knowledge.

3. METHODOLOGY

3.1 Purpose and significance of the study

Vocabulary games is not only a time-filling activity, but also a useful device to strengthen students' vocabulary development in a pleasant and relaxing atmosphere. However, under the Hong Kong context, it is a tough challenge for primary school teachers to exercise the games in ESL classrooms because of the lack of time for teachers to devise games that is appropriate for the students and execute them during the lessons. With the motive of introducing a practical game for students' vocabulary reinforcement, domino was chosen for the study in view of its convenience to prepare and execute.

There are websites for creating tailor-made domino games which are user-friendly and free-of-charge (see Appendix 1). It could be utilized as a facilitator by teachers for students to consolidate their vocabulary knowledge. It is consequently helpful to teachers who would like to introduce word games into the lesson but time do not allowed on the grounds of the shorter time needed for preparing and employing the game. With the aid of domino makers, applying games to consolidate vocabulary become pragmatic.

Even though there are published researches on the effectiveness of vocabulary games, there are still ‘research gaps’. First, the researches done have not targeted on Domino, but other kinds of vocabulary games. Second, the researches aforementioned examined the effectiveness of teaching vocabulary through games, however, not that of consolidating the vocabularies acquired. Third, the context of the researches and the language learners were not learning English as their second language (ESL). As a consequence, this study was conducted to bridge the gap.

The research study is crucial because of three major reasons. First, it is useful to teachers as it put forward a clear picture on the effectiveness of domino in vocabulary learning. Teachers can utilize domino games as a ‘teaching device’ to enhance students’ linguistic abilities. The usefulness of domino games may on other hand reject some teachers’ views regarding ‘games’ as time-killing activities when they find game is attractive to students and beneficial to their learning (Taheri, 2014). This may also turn down the view of some teachers on the impracticality of the implementation of games in classrooms. Second, it is beneficial to students due to the advantages of the language game. Apart from students and teachers, employing domino in class has pedagogical implications for text-book publishers too.

3.2 Research Methods

This study adopted an experimental research design to investigate the effects of dominos in consolidating students’ vocabulary learning. The reason of the adoption of experimental research is because ‘the research involves testing the strength of one variable’s influence on another,’ (Nunan and Bailey, 2009, p.44). Wray& Bloomer (2012) underlined that well-planned experiment obtain easy-to-process results to argue for or against the hypothesis and the experimental data is more focused than

other kinds of data. To address research question 1, pre- and post- test was administered while group semi-structured interviews were conducted to respond question 2 (See Figure 2). These research methods are advantageous in providing both general picture and in-depth information (Brown and Rodgers, 2002).

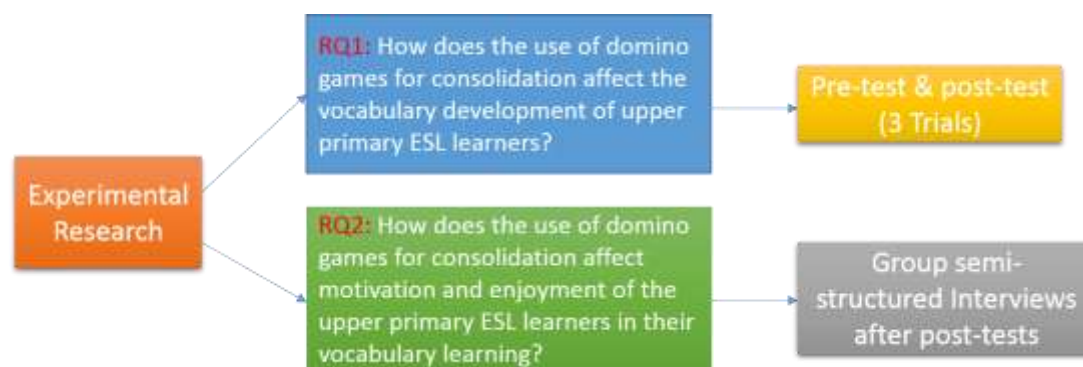


Figure 2. Research design

3.3 Setting

The research was conducted in Baptist (Sha Tin Wai) Lui Ming Choi Primary School which ranked in the upper tier among the primary schools in Hong Kong. English is set as the medium of instruction in English lessons but teachers sometimes use Chinese to give explanations when students feel difficult to understand.

3.4 Participants

A total of 66 students took part in this research. The participants were from 2 classes in Primary 4 with 33 students in each class. All the participants learn English as their second language with Cantonese as their first language. Nearly all of the students were able to understand English instructions given by teachers. One class was the controlled group while another was the experimental group. Five participants from the experimental group were randomly chosen for group interviews after each trial.

3.5 Data Collection Procedure

This study utilized experimental group and controlled group, along with a pre- and post- test design. Three trials were implemented in both the controlled group and experimental group. To obtain a comprehensive picture, participants were randomly selected for short interviews after each trial to elicit participants' internal feelings. The procedures of the experiments as well as the time spent on each step are shown in Figure 3.



Figure 3. Data collection procedure

The list of vocabulary that will be utilized in the experiments are high frequency content words which are words that of very frequent uses in both formal and informal contexts (Nation, 2008). These content words are very common words that we use in our daily life when we use English. Vocabularies were extracted from *Intermediate Vocabulary Games: A Collection of Vocabulary Games and Activities for Intermediate Students of English* (1999) and *English Vocabulary In use: Upper-Intermediate* (2001). The targeted vocabulary items in these three trials were the names of cooking utensils, animals and food which have not been mentioned in the Primary 1 to 4 English textbooks.

In the vocabulary teaching part, PowerPoint slides with pictures reveal the meaning of the vocabulary items were utilized for instruction, providing the same amount of time on the teaching of vocabulary within two groups (see Appendix 9-11).

The researcher taught students the meaning and pronunciation of the vocabulary items.

Both groups undergone the same process here.

Then, participants in control group consolidated their learning of vocabulary by doing worksheets with fill-in-the-blanks questions (see Appendix 3-5) while participants in the experimental group strengthened their knowledge by playing picture dominos (see Appendix 6-8).

For the domino game, students were arranged to play in pairs. Reading British Council's *Dominos: Words and pictures* for reference, the games were arranged as follow (See Appendix 2). First, students were asked to shuffle the dominoes and face down on the desk. Then, they divided the dominoes out equally among them. After that, one person selected a domino which is the target domino and placed it in the middle of the desk. The first student then tried to find either a matching word or picture on one of their dominoes and placed it next to the picture or word of the domino. The player must pronounce the word when he or she matches it. If any one player cannot put a domino down, it is the next player's turn. When a new domino is added, a new picture or word become available for the next matching.

The winner goes to the first person who play out of his or her dominoes. The game goes on until all the players used up their dominoes while the winner supervises. Every player is responsible to check if the dominoes put out by the player is correct or not. During the game, players can communicate in English. Students were encouraged to play once more when they finished the game before time is up.

The data collection was commenced from early November 2014 to late December 2014 and conducted by the researcher herself (See Table 1).

	Date of Pre-test (in Year 2014)			Date of Post-test (in Year 2014)		
	Trial 1	Trial 2	Trial 3	Trial 1	Trial 2	Trial 3
Experimental Group	20 Nov	4 Dec	Dec 17	20 Nov	4 Dec	Dec 17
Controlled Group	19 Nov	4 Dec	Dec 16	19 Nov	4 Dec	Dec 16

Table 1. Experiment dates

3.6 Instrument

3.6.1 Pre- and post- tests

Nunan and Bailey (2009, p.99) describes the pre-test post-test control group design as one of the ‘true experimental designs’ because of the fact that participants in controlled group could not receive the treatment (i.e. domino).

Identical pretests were used in the groups to determine the participants’ previous knowledge on the targeted vocabulary items with the provision of the same amount of time (see Appendix 12, 15, 18).

Identical post-tests were carried out afterwards to examine students’ knowledge on the targeted vocabulary items after the consolidation through playing domino (in experimental group) and filling in worksheets (in controlled group). In the post-test, although the vocabulary items to be tested and the form are the same as that in the pre-tests, the sequence of words and questions are different to prevent the pupils from blindly recalling the sequence of words used (Yip& Kwan, 2006).

With the pre-tests and post-tests, one can clearly notice the significant differences between the reinforcement through domino games and worksheets, keeping the vocabulary teaching part the same.

3.6.2 *Interview questions*

Interview is functional for collecting participants' perceptions and attitudes for analysis (Nunan & Bailey, 2009). Semi-structured group interviews were conducted each trial after the post-test in order to enable the researcher to obtain more in-depth understanding and attitudes of pupils towards domino and traditional vocabulary teaching methods (Yip & Kwan, 2006) (See Appendix 21).

According to Nunan & Bailey (2009), in semi-structured interview, the researcher has a general idea of what she wants to unfold from the interviewees, however, the research will not be constrained by them and open to new topics arises by the interviewees. Dörnyei (2007) underpins the effectiveness of within-group interactions in yielding high-quality data due to the fact that interactions can create a synergistic

environment which triggers off deep and insightful discussions. Participants can brain-storm and react to the issues and questions together (Dörnyei, 2007).

During the interviews, open-ended questions were mostly asked so as to ‘get detail and depth’ and encourage diverse answers (Cohen, 1994; Wengraf, 2001; Wray & Bloomer, 2012). The interviews were conducted in participants’ mother language (i.e. Cantonese) as this allows participants to express themselves freely (Yang, 1999; Rao, 2002).

In terms of the structure of interview questions, the researcher referred to Patton’s (2002) suggestions to elicit interviewees’ inner feelings towards domino game and traditional routines of vocabulary practice. As a consequence, mainly experience, opinion and feeling questions were asked during the interviews for the sake of investigating interviewees’ experiences, values, reactions, expectations and emotional responses.

3.7 Data Analysis

3.7.1 Pre- and post-test

Statistical package for the Social Sciences (SPSS) 21.0 for Windows was utilized to analyze the results of the pre- and post-tests with a function to check if the researcher has obtained a generalizable result (Dörnyei, 2007).

Independent samples T-test was conducted to test if there were differences in student scores on pre- and post-tests in the two groups. It is utilized for the comparisons of the results in the groups that are independent to each other (Dörnyei, 2007).

3.7.2 Interviews

According to Strauss and Corbin (2000), the patterns of the bunch of data collected in the group interviews of the three trials were transformed into two main categories for better comparisons between the two methods of vocabulary consolidation:

1. Students' perception and attitudes towards traditional methods
2. Students' perception and attitudes towards domino games

4. RESULTS AND FINDINGS

4.1 Pre- and post- tests

Independent samples T-tests were conducted to compare the pre- and post-tests results between experimental group and controlled group. This analysis is aimed to test the hypothesis.

		Experimental Group (N=33)		Controlled Group (N=33)		t value	p value
		Mean	Standard Deviation	Mean	Standard Deviation		
Trial 1	Pre-test	1.33	0.99	1.36	0.93	-0.13	0.9
	Post-test	8.03	1.16	2.64	1.22	18.41	0
Trial 2	Pre-test	1.7	1.21	1.7	1.19	0	1
	Post-test	7.91	1.13	2.76	1.03	19.36	0
Trial 3	Pre-test	1.45	1.09	1.48	1.06	-0.11	0.91
	Post-test	5.03	1.31	2.45	1.12	8.58	0

Table 2. Main statistics of independent samples T-test analysis

4.1.1 Trial 1

In accordance with Table 2, experimental and controlled group have a mean score of 1.33 (SD=0.99) and 1.36 (SD=0.93) in the pre-tests. There was no significant differences between the mean score of the two groups ($p=0.90>0.05$). The t-observed value was -0.13, which was lower than the critical t-value 2.02. This indicated the fact that there were not much different at pre-test of Trial 1.

In the post-test, the 33 participants in experimental group had a mean of 8.03 points (SD=1.16) in the class, while another 33 participants in controlled group had a mean of 2.64 points (SD=1.22). The means differ significantly at the $p < 0.01$ level ($p = 0.00$). The t-observed value was 18.41, which was a lot greater than the critical t-value 2.02. Therefore, experimental group's participants outperformed controlled groups' one in the post-test of Trial 1.

4.1.2 Trial 2

According to Table 3, in the pre-test, students' mean score in experimental group and controlled group are both 1.70 while standard deviation (SD) are 1.21 and 1.19 respectively. The observed t value was 0 which was lower than the critical t value (2.02). The p value was greater than 0.05 ($p = 1.00$). These data demonstrated that no crucial difference appeared between the groups in the pre-test.

In the post test, the mean score in experimental group was 7.91 (SD=1.13) while that in controlled group was 2.76 (SD=1.03). There was notable difference between the groups with p value < 0.01 ($p = 0.00$) level. The observed t value was 19.36 which

was higher than the t-critical value (2.00). This implied the performance of students in experimental group is better than that in controlled.

4.1.3 Trial 3

In pre-test of Trial 3, as indicated in Table 2, the mean score between the controlled group ($M=1.45$, $SD=1.09$) and experimental group ($M=1.48$, $SD=1.06$) were of no significant difference which the p value was high than the 0.05 ($p=0.91$). The observed t value was negative ($t=-0.11$) which was far lower than the t-critical value (2.00).

In the post-test, the experimental group ($M=5.03$, $SD=1.31$) performed better than the controlled group ($M=2.45$, $SD=1.12$) with the p value lower than 0.05 level ($p=0$) and t-observed value ($t=8.58$) larger than the t-critical value (2.00).

4.1.4 Overall (Trial 1 to 3)

	Experimental Group	Controlled Group
Sum of pre-test mean score (Trial 1-3)	4.48	4.54
Sum of post-test mean score (Trial 1-3)	20.97	7.85

Table 3. Sum of pre- and post-test mean score (Trial 1-3)

As indicated in Table 3, the sum of the mean score in the pre-test of experimental group from Trial 1 to 3 was 4.48 while that of controlled group was 4.54. It showed a slight difference in the pre-tests which the controlled group exceeds the experimental group for 0.06 marks.

However, there was an obvious difference between the sum of Trial 1 to 3 post-test mean score in the experimental group ($M=20.97$) and controlled group ($M=7.85$) (see Table 3). Though controlled group's participants has improved after the vocabulary teaching and consolidation worksheet, the experimental group's participants improved in a relatively greater scale. It revealed the fact that domino games for strengthening students' vocabulary knowledge is more useful than that of fill-in-the blanks worksheets.

4.2 Interviews

4.2.1 Students' perception and attitudes towards traditional methods

In the interviews of the three trials, the interviewees pointed out that teachers revise or consolidate their vocabulary knowledge through giving definitions, pronouncing the words repetitively, highlighting the words, spelling the words, having dictations, doing worksheets and copying the vocabularies.

Most of the interviewees opposed to the abovementioned techniques for reinforcement. ‘It is extremely boring to copy the words! I always forget in the next second!’ a student who had interview in Trial 2 pointed out while the other four interviewees nodded. All the interviewees from Trial 1 to 3 expressed their negative attitudes towards the aforementioned traditional practices for vocabulary consolidation. ‘I don’t understand why teacher always asked us to copy the words to the worksheets. Even I copied the words every time, I still forget it in the dictation!’ an interviewee from Trial 1 pointed out. ‘I don’t like dictation. I don’t like copying,’ an interviewee from Trial 3 stated. They regarded the retention of vocabulary as a kind of torture and pain. Interviewees even asked if there is ‘super way’ to remember the words easily without any ‘pain’. A large majority of interviewees demonstrated their wants to get rid of the traditional means for reinforcement and consolidate the vocabulary in a relatively more interesting way. ‘I don’t know what it means, I just

follow (the teacher) and underline the words,’ an interviewee from both Trial 2 and 3 commented while other interviewees in the groups nodded to indicate their agreement. Two interviewees uttered that they hate doing worksheets and having dictation because he always got very low grades or marks.

4.2.2 Students’ perception and attitudes towards domino games

Most of the interviewees in Trial 1 and 2 showed their willingness and eagerness in playing domino. All the interviewees showed their positive attitude and pleasant feelings toward the game. ‘It is great! I love it! I win (a classmate’s name) for two times!’ an interviewees from Trial 2 said. ‘Why can we only play this when you (the researcher) are here? Can we play it in every English lessons? I love to play this!’ the interviewees from Trial 2 requested.

Of a large majority of interviewees from Trial 1 to 3 expressed that they love to play it with their classmates. Another interviewee, who is of lower ability and was shy in class also expressed her satisfaction after playing domino. ‘I like the game more than doing worksheet!’ ‘(a classmate’s name) and I can form a circuit (i.e. completed

the game with all the domino putting in the correct place),’ she told the researcher in a delightful manner. ‘I want to play a thousand time! Can I borrow it home? I want to show my mother,’ an interviewee from Trial 1 asked enthusiastically. This reveals the attractiveness of domino games in maintaining participants’ interests.

However, the interviewees’ opinions from Trial 3 went extreme. Three out of five interviewees demonstrated their lack of interests towards the domino game due to the repetitive uses for vocabulary consolidation. ‘Can we play other games next time? For example, hangman and board game? It is very exciting! We all have a satiety of playing domino!’ While the remaining two interviewees still enjoyed playing domino, they showed their unwillingness of playing the game again next time. They felt it is monotonous to play the same kind of game every time and prefer different games. ‘I like playing games. Domino is good...but...can we try different games next time?’ one of the interviewee said. ‘I like domino more than doing worksheets anyway. I will choose to play game for one hundred times, but zero time in doing worksheet,’ another interviewee disclosed with confirmed utterance.

Even so, most of the interviewees from Trial 1 to 3 agreed that the helpfulness of domino in strengthening vocabulary retention. A majority of students prefer playing domino instead of sticking to the traditional method- doing worksheets.

5. DISCUSSIONS

This study was attempted to investigate the effectiveness of the labour-saving game-domino in consolidating upper-primary students' vocabulary items learnt, utilizing pre-tests, post-tests and interviews as instruments. Regarding the study, the three trials of experiments suggested that the implementation of domino as a mean for reinforcement of students' vocabulary knowledge is more influential than that of doing fill-in-the-blanks worksheets in upper primary classrooms. The interviews also discovered that most of the interviewees showed preference towards domino when making a contrast between the domino and the traditional methods. Thus, the null hypothesis was rejected while the alternative hypothesis was accepted.

5.1 Usefulness of domino for vocabulary consolidation

In terms of the usefulness of domino, with a similar pre-test scores between two groups in every trials, students' performance in all the post-tests between the groups had significant difference with $p < 0.01$ level. The experimental group outperformed the controlled group indicated that playing domino game to consolidate the vocabulary acquired is more useful than doing fill-in-the blanks worksheets. The large scale of furtherance between the pre-test and post-test in the three trials was the best illustration of the effectiveness of domino on students' vocabulary development.

The execution of domino produces positive effect results in the students' improvement in vocabulary reinforcement. These findings are compatible to the studies and literatures on the usefulness of games in vocabulary learning by Alemi (2010), Aslanabadi & Rasouli (2013), CDC (2004), Hui & Chen (2012), Nguyen & Khuat (2003), Teheri (2014), Uberman (1998) and Yip & Kwan (2006). As agreed by Tompkins & Blanchfield (2008), the language game domino in this study acted as a lubricator in the ESL learners' vocabulary learning. In this study, participants can learn ESL through domino actively (Robin, 2001) as domino engaged participants in practicing and rehearsing the words (Graves et al., 2013).

Notwithstanding the higher effectiveness when making a comparison between the controlled and experimental groups, the extent of enhancement in experimental group diminished. The t-observed value of post-test in Trial 1, 2 and 3 were 18.41, 19.36 and 8.58 respectively. The t-observed value in Trial 3 diminished by 53.39% in comparison with that in Trial 1 while it decreased by 55.68% compared with that in Trial 2.

The contributing factor of the reduction is due to students' loss of interests according to students' responses from the interviews. The repetition of the same game is the crux of the diminution of its novelty and attractiveness (Linse, 2006). On account of the motivation of students in playing domino decreases, the effectiveness of domino as a facilitator of vocabulary consolidation thus increases in a comparatively smaller extent in Trial 3.

This discovery give support to the importance of the element of novelty in games or even different kinds of activities as students are bound to loss their interests and motivation to the games or activities gradually when the learning tools are over-used.

The over-use of domino lead to students' feeling of dull and monotonous according to

the interview in Trial 3. With a view to maintaining students' attention, it is advisable for teachers to apply various strategies in their teaching or change their teaching devices from time to time.

5.2 Providing relaxing atmosphere

The usefulness of domino in vocabulary development also arises from the relaxing atmosphere that maintained by the adoption of domino (Celce-Murcia & Macintosh, 1979; Aslanabadi& Rasouli., 2013; Tavıl & İşısağ, 2009). Relaxing atmosphere by all means is one of the indispensable constituents which brought about the effectiveness of domino (Cunningham, 2009). Employing domino can minimize students' negative stress because they 'do not need to afraid of grades' (Taheri, 2014). Students felt less anxious and nervous when playing domino. This pleasing environment allowed students to consolidate the words more effectively (Aslanabadi& Rasouli., 2013; Richard-Amato, 1988; Nguyen & Khuat, 2003; Taheri, 2014). Thus, it is an excellent idea for students to consolidate the vocabulary they have learnt through domino, which is a type of 'playful' tasks.

5.3 Sustain students' interests and attention

In terms of motivation, domino has successfully become the motivator for pupils' to play the game (CDC, 2004). It is observed that the nature of competitiveness in games is one of the components that triggered off participants' motivation which is in line with Nguyen & Khuat (2003) and Taheri (2014). On the report of Taheri (2014), domino unconsciously motivated students because of the elements of competition involved. In the interview, the participants conveyed that it is exciting to compete with another player in the domino games and they even counted the number of time they won.

Domino has been a successful tool for vocabulary consolidation as it added interests to issues that students may not be favourable to learn (CDC, 2004). In the interviews, interviewees requested to play again and even asked if they could borrow the set of domino home. It clearly demonstrated the participants' excitement in playing domino notwithstanding the overuse of domino results in loss of interests.

Nevertheless, in the interviews, students showed their reluctance of doing rote exercises. Their statements were consistent with Uberman (1998) and Nguyen and Khuat (2003) which they discovered that pupils are worn out by traditional methods for reinforcement such as copying and doing worksheet. They preferred to play domino because of the delightful and successful learning experience it provided (Aslanabadi& Rasouli., 2013). Taheri (2014) and Tavıl & İşısağ (2009) stated that both students and teachers are tired of the traditional and mechanical ways for consolidation and thus it was not a productive way for vocabulary retention. The results obtained from the interviews are compatible with Aslanabadi& Rasouli (2013), Nguyen and Khuat (2003), Tavıl & İşısağ, (2009), Cunningham (2009), Richard-Amato (1988) and Celce-Murcia & Macintosh (1979) that participants prefer domino rather than mechanical worksheets. Domino can better capture students' attention in contrast to fill-in-the-blanks worksheets or other mechanical teaching methods. With motivation and interests to play domino, the participants in experimental group had outstanding results in post-test compared to that in controlled group.

5.4 Caters for learners' differences

Alemi (2010) reported that games are applicable to address students with different educational needs. In the interview, a student who was inactive and of low ability in English demonstrated her satisfaction of the correct completion of the domino and became actively engaged in the lessons (Hansen, 1994; Nguyen & Khuat, 2003). Domino is efficacious to minimize inhibition and as a corollary, even participants who were diffident became voluntarily engaged to play domino as they did not need to worry about marks and grades (Abdikhah, 1998). The knock-on effect of enhancement is the increase of participants' self-esteem and self-confidence (Taheri, 2014).

5.5 Purposeful communication takes place

Domino acted as a stimulus in getting the class to use its initiative in English for communication during the game (Haycraft, 1978). Domino enables purposeful communication as participants exchange their ideas during the game (Freeman, 1986; Huyen and Nga, 2003).

6. LIMITATIONS OF THE STUDY

Regarding the weaknesses of the study, first, it was not possible for the researcher to use randomization to randomly assign students to experimental and controlled group with a purpose to minimizing the differences of the two groups to the most (Nunan & Bailey, 2009), though there were not any significance difference between the groups in pre-tests.

Second, the experiments were limited to a small number of participants from the same primary school which may limit the relevance of the results. Third, only short-term effect of the use of domino games have been tested which the long-term effect with the same group of the participants requires further study.

7. CONTRIBUTIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This study probed into the effectiveness of domino games in ESL classrooms in the context of Hong Kong regarding to the common phenomenon that teachers has lack of time to prepare and execute games in classrooms. The research bridge the gap that mentioned in 3.1. It is useful by offering in-service teachers, prospective teachers, text-book publishers, other educators and researchers insights into the practicality and

effectiveness of domino in ESL classrooms for vocabulary consolidation. Domino is no longer a ‘time-killing’ activity that suggested by some teachers but a kind of constructive device which stimulate teaching and learning in the classrooms.

Although Hong Kong teachers have limited time in preparing their teaching and has rigid teaching schedule to follow every day, domino is worth integrating into lessons for consolidation of vocabulary.

In accordance with the results derived from the study, students started to loss their interests gradually when domino was overused within a short period of time. For further research, the focal point could be an evaluation of students’ boredom on different combinations of games (See Table 4) or a particular game so as to find out the best combinations that can sustain students’ interests for the longest period of time through comparisons and contrasts.

Week	Week 1	Week 2	Week 3	Week 4
Game	Domino	Board game	Word puzzle	Bingo

Table 4. Combinations of games to test students’ boredom

With the limitations that Hong Kong teachers encountered, the application of games in classrooms may be hidden. More in-depth understandings were needed to investigate in order to find out the best method to fit language games into Hong Kong primary schools.

Allen (1983) highlighted that teenagers and adults may love to play games as much as children does if the objective of playing the games is elucidated to them. In the future, researchers can probably examine the effectiveness of domino games on adolescents and adults.

As this study only collected data from a local primary school and looked into the situation in upper primary classrooms, the scope of data collection could be expanded by future researchers to more primary schools and levels to increase its reliability.

8. CONCLUSION

The researcher tried to implement the research in a more practical aspect of vocabulary learning by applying domino games in the ESL classrooms. This study

revealed that domino games have potentialities to be widely used in reinforcing vocabulary.

Through domino games, students undergo ‘a process of active involvement and an act of engagement’ (Alemi, 2010). Learners’ size of vocabulary retention increased by the substituting worksheets with domino games. Learners felt less anxious and nervous when playing dominos in contrast to the traditional method.

The outcome supported the hypothesis of this study. The research has also contributed a conformed direction for the mode of vocabulary teaching and learning in ESL classrooms in the future.

9. APPENDICES

Appendix 1: Domino Maker

Tools for Educators
brought to you by:
English.com
free printables for teachers

Domino Maker

Like 264 Tweet 12 +1 4 Pin it Share 157

Google Custom Search Search

Tools for Educators Word Search Crossword Board Games Bingo Vocabulary Mazes Spelling Certificates

Practise French

Practise German

Practise Italian

Practise Spanish

Practise Portuguese

+Babbel

IXL Math Practice

Kindergarten

First Grade

[Tools for Educators](#) offers free domino maker, printable dominos with images and text; make your own dominoes as resources for lessons, lesson plans and K-6 printable materials for classes.

The domino maker is a worksheet creator that allows you to create dominoes for any vocabulary set. You can select the image you want to use and type in any text you'd like. So, you can just enter a single word, enter a definition, or type in a two to three sentence description. It's super simple, easy to use, but very powerful.

domino maker
make dominos with pictures

text and blank dominos; with dots and without
[text domino maker](#)

make dominoes with images on one side
[adjectives and opposites](#)
[animals](#)
[bathroom](#)
[bedroom](#)
[bodyparts](#)
[buildings](#)
[chores](#)
[Christmas](#)
[classroom](#)
[clothing and accessories](#)
[countries](#)
[daily routines](#)
[Easter](#)
[family members](#)
[fantasy](#)
[feelings and emotions](#)
[food](#) (food, drinks, desserts, condiments, snacks)
[fruit and vegetables](#)
[hair](#) (physical descriptions)
[Halloween](#)
[health worksheets \(problems and feelings\)](#)
[hobbies and free time activities](#)
[house](#)

Retrieved from: <http://www.toolsforeducators.com/dominos/text.php>

Appendix 2: Rules for Domino



How to play

Playing alone

Shuffle the dominoes and place them face up on the table so you can see them all clearly.

Select one domino and place it in the middle of the table. This is the target domino.

Try to find the matching spelling on another domino and place it next to the correct picture on the target domino. Then, find the matching picture on another domino and place it next to the spelling on the target domino.

Now you can match two more dominoes to the new image and spelling at the end of the line of dominoes.

Continue until you have matched all the dominoes.

Playing in a group

Shuffle the dominoes and place them face down on the table so you can't see what is on them.

Share the dominoes out equally among the players.

One person selects a domino and places it in the middle of the table. This is the target domino.

The first player tries to find either a matching spelling or picture on one of their dominoes and place it next to the picture spelling on the target domino. If they do not have a matching spelling or image, they tap on the table and miss a turn. Then it is the next player's turn.

Each time a new domino is added, a new word or picture becomes available to match.

Continue playing until one player has used all their dominoes. They are the winner! If you don't use all the dominoes in the game, the person with the fewest dominoes left when no one else can go, is the winner.

Ideas

Practise spelling the word out loud when matching the cards together. Look at the real spelling for help. Try to sound out all the symbols.

Why not time yourself and see what's the fastest time you can match all the dominoes?

Retrieved from:

<https://www.teachingenglish.org.uk/sites/teacheng/files/Dominoes-Words-Pictures-no-match-marks.pdf>

Appendix 3: Consolidation worksheet for Trial 1

Name: _____ Class: _____ () Date: _____

Worksheet

What are the name of these cooking utensils? Put the names on the lines given.





















grater

scales

saucepan

sieve

ladle

masher

turner

blender

peeler

whisk

Appendix 4: Consolidation worksheet for Trial 2

Name: _____ Class: _____ () Date: _____

Worksheet

What are the name of these animals? Put the name of the animals on the lines given.



leopard

lizard

firefly

rhinoceros

whale

lobster

seal

squid **alligator**

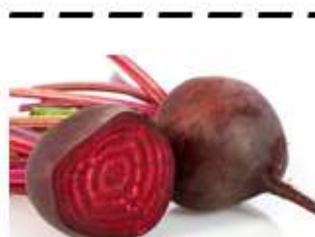
camel

Appendix 5: Consolidation worksheet for Trial 3

Name: _____ Class: _____ () Date: _____

Worksheet

What are the name of these food? Put the names on the lines given.









cabbage
 garlic
 beetroot
 celery
 raisins
 apricot
 mussel
 avocado
 cucumber
 celery

Appendix 6: Domino for Trial 1


	blender		saucepan
	scales		sieve
	masher		whisk
	grater		ladle
	peeler		turner

Appendix 7: Domino for Trial 2

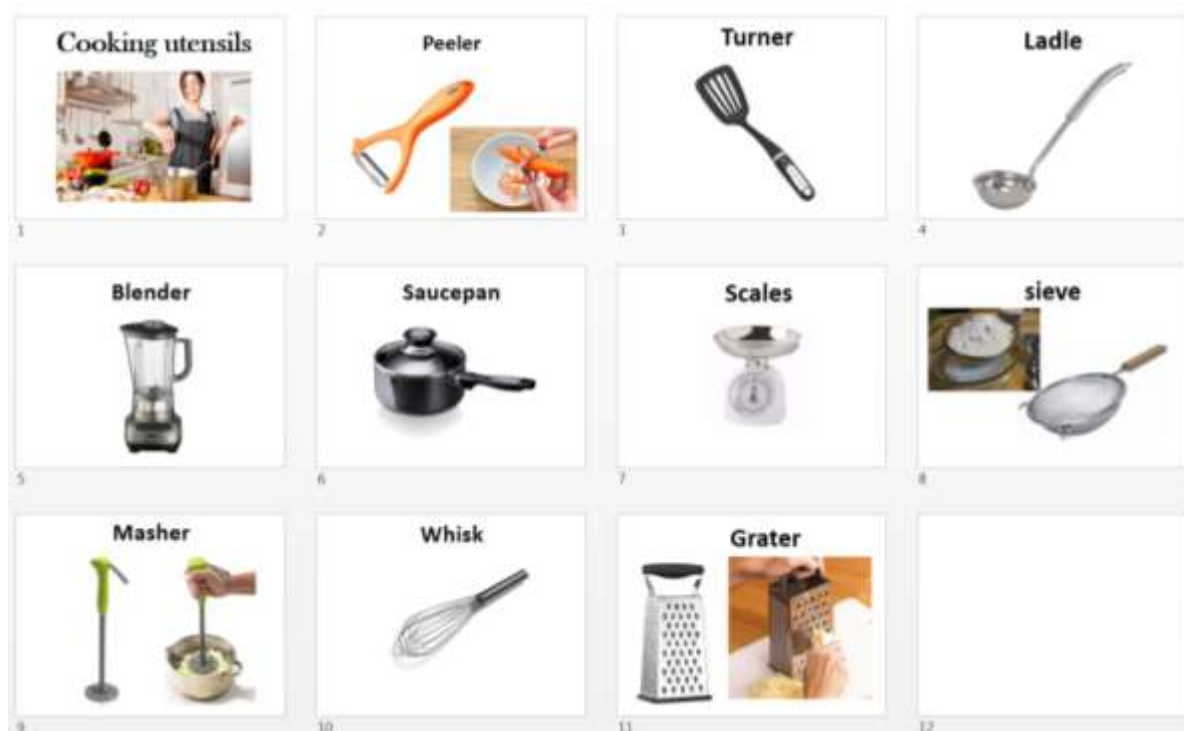
	squid		rhinoceros
	leopard		lobster
	camel		alligator

	seal		lizard
	firefly		whale

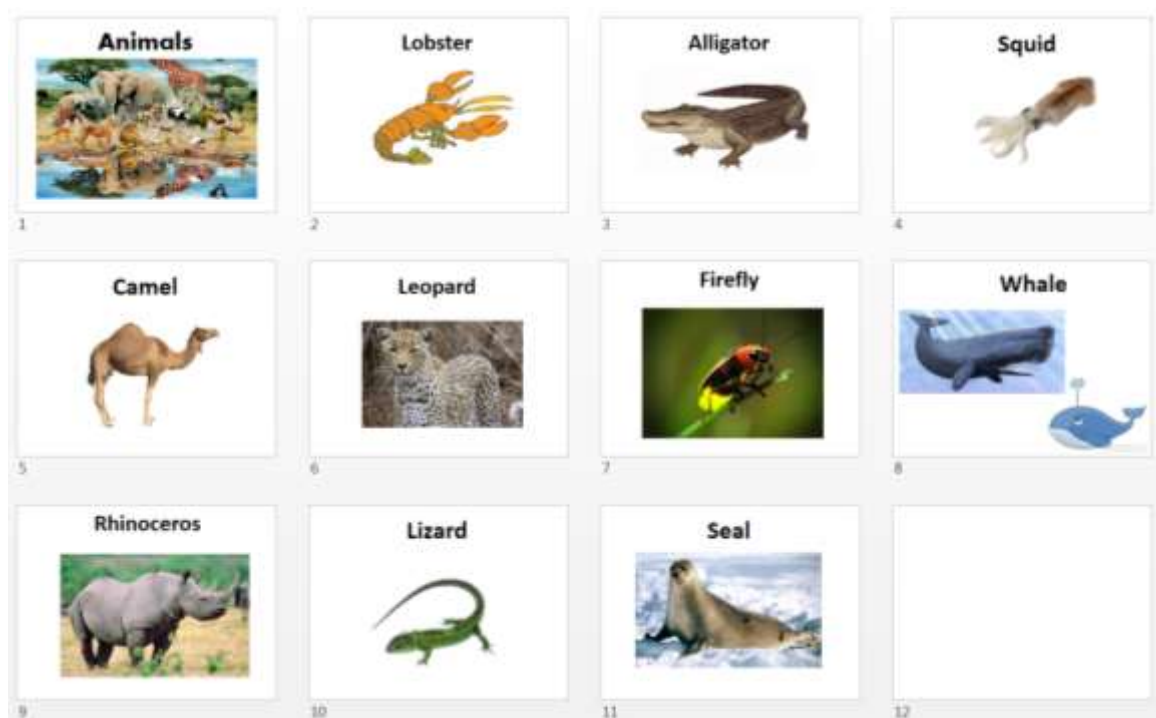
Appendix 8: Domino for Trial 3

	cabbage		apricot
	mussel		beetroot
	garlic		cucumber
	raisins		avocado
	lime		celery

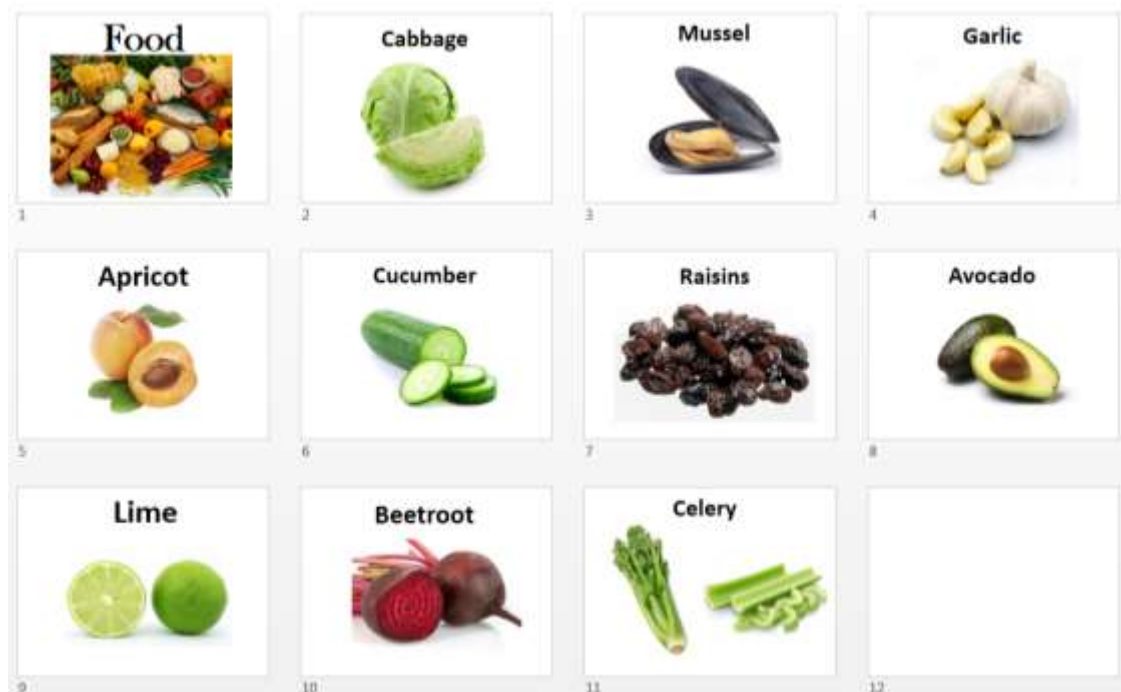
Appendix 9: PowerPoint for vocabulary teaching in Trial 1



Appendix 10: PowerPoint for vocabulary teaching in Trial 2



Appendix 11: PowerPoint for vocabulary teaching in Trial 3



Appendix 12: Pre-test used in Trial 1

Name: _____ Class: _____ () Date: _____

Pre-Test 1

Put the letters into the correct boxes.

A. sieve	B. ladle	C. peeler	D. turner	E. grater	F. blender
G. masher	H. whisk	I. scales	J. saucepan	K. frying pan	L. opener

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 13: Post-test used in Trial 1 (*Controlled group*)

Name: _____ Class: _____ () Date: _____

Post-Test 1 (After Worksheet)

Put the letters into the correct boxes.

A. blender	B. masher	C. whisk	D. frying pan	E. peeler	F. turner
G. scales	H. saucepan	I. sieve	J. grater	K. opener	L. ladle

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 14: Post-test used in Trial 1 (*Experimental group*)

Name: _____ Class: _____ () Date: _____

Post-Test 1 (After Domino Game)

Put the letters into the correct boxes.

A. blender	B. masher	C. whisk	D. frying pan	E. peeler	F. turner
G. scales	H. saucepan	I. sieve	J. grater	K. opener	L. ladle

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 15: Pre-test used in Trial 2

Name: _____ Class: _____ () Date: _____

Pre-test 1

Put the letters into the correct boxes.

A. penguin	B. lobster	C. squid	D. alligator	E. lizard	F. camel
G. rhinoceros	H. leopard	I. whale	J. firefly	K. hippo	L. seal

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 16: Post-test used in Trial 2 (Controlled group)

Name: _____ Class: _____ () Date: _____

Post-Test 2 (After Worksheet)

Put the letters into the correct boxes.

A. firefly	B. hippo	C. leopard	D. squid	E. seal	F. rhinoceros
G. camel	H. alligator	I. whale	J. penguin	K. lobster	L. lizard

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 17: Post-test used in Trial 2 (*Experimental group*)

Name: _____ Class: _____ () Date: _____

Post-Test 2 (After Game)

Put the letters into the correct boxes.

A. firefly	B. hippo	C. leopard	D. squid	E. seal	F. rhinoceros
G. camel	H. alligator	I. whale	J. penguin	K. lobster	L. lizard

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐



Appendix 18: Pre-test used in Trial 3


Name: _____ Class: _____ () Date: _____


Pre-Test 3


Put the letters into the correct boxes.


A. raisins	B. celery	C. cabbage	D. oyster	E. cucumber	F. garlic
G. lime	H. broccoli	I. avocado	J. apricot	K. mussel	L. beetroot


☐



☐



☐



☐



☐


☐


☐


☐


☐


☐



Appendix 19: Post-test used in Trial 3 (Controlled group)


Name: _____ Class: _____ () Date: _____


Post-Test 3 (After Worksheet)


Put the letters into the correct boxes.


A. apricot	B. garlic	C. lime	D. beetroot	E. raisins	F. celery
G. cucumber	H. mussel	I. oyster	J. avocado	K. broccoli	L. cabbage


☐ 


☐ 


☐ 


☐ 


☐ 

☐ 

☐ 

☐ 

☐ 

☐ 






Appendix 20: Post-test used in Trial 3 (*Experimental group*)






Name: _____ Class: _____ () Date: _____

Post-Test 3 (After Domino Game)

Put the letters into the correct boxes.

A. apricot	B. garlic	C. lime	D. beetroot	E. raisins	F. celery
G. cucumber	H. mussel	I. oyster	J. avocado	K. broccoli	L. cabbage

☐ 
☐ 
☐ 
☐ 
☐ 

☐ 
☐ 
☐ 
☐ 
☐ 

Appendix 21: Interview questions

1. How your English teacher consolidates or revises vocabulary with you in the English lessons normally? (*Experience Question*)
2. What feeling did that provoke in you when your teacher use these methods to consolidate the vocabulary learnt? (*Feeling Question*)
3. How about domino game? What feeling did that provoke in you when you played domino game just now? (*Feeling Question*)
4. From your perspective, which methods of consolidating vocabulary do you like best? Can you tell me why? (*Evaluation, Experience and Feeling Question*)

10. REFERENCES

Alemi, M. (2010). The Impact of Word Games on Expanding Learner's Vocabulary Knowledge. *Proceedings Of The European Conference On Games Based Learning*, 1-6.

Abdikhah, SH. (1998). The effect of language games on vocabulary improvement. *MA thesis*. Tehran: Tarbiat Modarres University.

Allen, V.F. (1983) *Techniques in teaching vocabulary*. Oxford University Press.

Aslanabadi, H., & Rasouli, G. (2013). The Effect of Games on Improvement of Iranian EFL Vocabulary Knowledge in Kindergartens. *International Review of Social Sciences & Humanities*, 6(1), 186-195.

Blachowicz, C. L.Z., & Fisher P. (2004). Keep the “fun” in fundamental: Encouraging words awareness and incidental word learning in the classroom through word play. In

J.F. Bau-mann & E.J.Kame'enui, (Eds.), *Vocabulary instruction: Research to Practice* (pp.218-237). New York: Guilford.

Blachowicz, C. Z., & Fisher, P. (2010). *Teaching vocabulary in all classrooms*.
Boston : Allyn & Bacon.

Brown, J. D. & Rodgers, T. S. (2002). *Doing second language research*. Oxford:
Oxford University Press.

Carter, R. (1992). *Teaching English to speakers of other languages*. Cambridge
University Press.

Celce-Murcia, M. & Macintosh, L. (1979) *Teaching English as a second or foreign
language*. Newbury House Publishers.

Channell, J. (1988) Psycholinguistic consideration, in R. Carter & M. Mc Carthy (Eds)

Vocabulary and language teaching (pp. 83-97). London, Longman.

Coady, J. & Huckin, T. (1997). *Second language vocabulary acquisition*. Cambridge:

Cambridge University Press. Freeman.

Cohen, A.D. (1994). Verbal reports on learning strategies. *TESOL Quarterly*, 28 (4),
678–679.

Crookal, D. (1990). *Simulation, Gaming and Language Learning*. New York:

Newbury House.

Cunningham, P. (2009). *What really matters in vocabulary: research-based practices
across the curriculum*. Boston, Mass. : Pearson, c2009.

Curriculum Development Council. (2004). *CDC English Language Curriculum Guide (P1-6)*. Hong Kong: Curriculum Development Council.

Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford: Oxford University Press.

Florence W. M. Yip, Alvin C. M. Kwan. (2006). Online vocabulary games as a tool for teaching and learning English vocabulary. *Educational Media International*, Vol. 43, No. 3, September 2006, pp. 233–249.

Graves, M. F., August, D., & Mancilla-Martinez, J. (2013). *Teaching vocabulary to English language learners*. foreword by Catherine E. Snow. New York : Teachers College Press, c2013.

Hadfield, J. (1998). *Elementary vocabulary games : a collection of vocabulary games and activities for elementary students of English*. Harlow [England] : Longman, 1998.

Hadfield, J. (1999). *Intermediate vocabulary games: a collection of vocabulary games and activities for intermediate students of English*. Harlow [England] : Longman.

Hansen, F. A. (1994). *Testing Testing: Social Consequences of the Examined Life*.
University of California Press, California.

Harmer, J. *The Practice of English Language Teaching*, (1991), London: Longman.

Haycraft, J. (1978). *An introduction to English language teaching*. Harlow: Longman

Holden, W.R (1999). Learning to learn: 15 vocabulary acquisition activities. *Modern English Teacher*, 8(2), 42-47.

Hu Hai-peng, Deng Li-jing. (2007). Vocabulary acquisition in multimedia
environment. *US-China Foreign Language Aug. 2007*, 5 (8), 55-59.

Hui-Chuan, L., & Chen, M. (2012). Effects of Vocabulary Games on Lexical Growth and Retention of Low-Motivated EFL Learners in Taiwan. *Asia-Pacific Education Researcher (De La Salle University Manila)*, 21(3), 564-575.

Huyen N.T.T. & Nga K.T.T. (2003). Learning vocabulary through games, *Asian EFL Journal*, 5(4) 90-105.

Laufer, B. (1989). What percentage of text-lexis is essential for comprehension? In C. Lauren & M. Nordman (Eds.), *Speciallanguage: From humans thinking to thinking machines* (pp.316-323). Clevedon, UK: Multilingual Matters.

Laufer, B. (1997). What's in a word that makes it hard or easy: Some intra-lexical factors that affect the learning of words. In N. Schmitt., & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 140– 155). Cambridge: CUP.

Lee, S.K. (2006). Creative games for the language class, *Forum*, 33(1)

(January-March), 35, Retrieved from:

<http://exchanges.state.gov/forum/vols/vol33/no1/P35.htm>

Lewis, M. (2000). *Teaching Collocation*. Hove: Language Teaching Publications

Linse, C.T. (2006). *Practical English Language Teaching: Young Learners*. New
York, NY: McGraw-Hill.

McCarthy, M., & O'Dell, F. (2001). *English vocabulary in use: upper-intermediate*.
Cambridge, England: Cambridge University Press.

Martin-Chang, S. L., Levy, B. A., & O'Neil, S. (2007). Word acquisition, retention,
and transfer: Findings from contextual and isolated word training. *Journal of
Experimental Child Psychology*, 96 (3), 37-56.

Nation, I. P. (2008). *Teaching vocabulary: strategies and techniques*. Boston, Mass.:

Heinle, c2008.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge, UK:

Cambridge University Press.

Nixon, C., & Tomlinson, M. (2003). *Primary vocabulary box: word games and activities for younger learners*. Cambridge: Cambridge University Press.

Nguyen, T.H. & Khuat, T.N. (2003). *Learning Vocabulary through Games*, *Asian EFL Journal*, http://www.asian-efl-journal.com/dec_03_vn.pdf (02.05.2014).

Nunan, D., & Bailey, K. M. (2009). *Exploring second language classroom research*. Boston: Heinle.

Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, Calif. Sage Publications.

Rao, Z.H., (2002). Chinese students' perceptions of communicative and non-communicative activities in EFL classroom. *System* 30 (1), 85–105.

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

Richards, J.C. (1969) *The role of vocabulary teaching*. Oxford University Press.

Rivers, W. (1981). *Teaching foreign language skills*. (2nd ed.) Chicago: The University of Chicago.

Schmitt, N. and M. McCarthy. (1997). *Vocabulary: Description, Acquisition and Pedagogy*. Cambridge University Press.

Strauss, A.& Corbin, J., (2000). Grounded theory methodology: an overview. In:

Denzin, N.K., Lincoln, Y.S. (Eds.), *Handbook of Qualitative Research, second ed.*

Sage, London.

Taheri, M. (2014). The Effect of Using Language Games on Vocabulary Retention of

Iranian Elementary EFL Learners. *Journal of Language Teaching & Research*, 5(3),

544-549. doi:10.4304/jltr.5.3.544-549

Tavıl, Z., & İşısağ, K. U. (2009). *Teaching Vocabulary to very Young Learners*

through Games and songs. Ekev Academic Review, 13(38), 299-308.

Tompkins, G. E., & Blanchfield, C. L. (2008). *Teaching vocabulary: 50 creative*

strategies, grades 6-12. Upper Saddle River, N.J. : Pearson/Merrill/Prentice Hall,

c2008.

Uberman, A. (1998). The Use of Games: For Vocabulary Presentation and Revision,

English Teaching Forum, Vol. 36, No. 1, 20-27.

Wengraf, T. (2001). *Qualitative Research Interviewing: Biographic Narrative and Semi-structured Methods*. Sage, London.

Wright, A., Betteridge, D., & Buckby, M. (1984). *Games for language learning* (2nd ed.). Cambridge: Cambridge University Press.

Yip, F. M., & Kwan, A. M. (2006). Online vocabulary games as a tool for teaching and learning English vocabulary. *Educational Media International*, 43(3), 233-249.

Zentall, S. S. (1989). Attentional Cuing in Spelling Tasks for Hyperactive and Comparison Regular Classroom Children. *Journal of Special Education*, 23(1), 55-57.

PART 2. INSTRUMENT


Appendix 12: Pre-test used in Trial 1


Name: _____ Class: _____ () Date: _____


Pre-Test 1


Put the letters into the correct boxes.


A. sieve	B. ladle	C. peeler	D. turner	E. grater	F. blender
G. masher	H. whisk	I. scales	J. saucepan	K. frying pan	L. opener


☐ 


☐ 


☐ 


☐ 


☐ 

☐ 

☐ 

☐ 

☐ 

☐ 

Appendix 13: Post-test used in Trial 1 (Controlled group)

Name: _____ Class: _____ () Date: _____

Post-Test 1 (After Worksheet)

Put the letters into the correct boxes.

A. blender	B. masher	C. whisk	D. frying pan	E. peeler	F. turner
G. scales	H. saucepan	I. sieve	J. grater	K. opener	L. ladle

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 14: Post-test used in Trial 1 (*Experimental group*)

Name: _____ Class: _____ () Date: _____

Post-Test 1 (After Domino Game)

Put the letters into the correct boxes.

A. blender	B. masher	C. whisk	D. frying pan	E. peeler	F. turner
G. scales	H. saucepan	I. sieve	J. grater	K. opener	L. ladle

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 15: Pre-test used in Trial 2

Name: _____ Class: _____ () Date: _____

Pre-test 1

Put the letters into the correct boxes.

A. penguin	B. lobster	C. squid	D. alligator	E. lizard	F. camel
G. rhinoceros	H. leopard	I. whale	J. firefly	K. hippo	L. seal

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 16: Post-test used in Trial 2 (Controlled group)

Name: _____ Class: _____ () Date: _____

Post-Test 2 (After Worksheet)

Put the letters into the correct boxes.

A. firefly	B. hippo	C. leopard	D. squid	E. seal	F. rhinoceros
G. camel	H. alligator	I. whale	J. penguin	K. lobster	L. lizard

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 17: Post-test used in Trial 2 (Experimental group)

Name: _____ Class: _____ () Date: _____

Post-Test 2 (After Game)

Put the letters into the correct boxes.

A. firefly	B. hippo	C. leopard	D. squid	E. seal	F. rhinoceros
G. camel	H. alligator	I. whale	J. penguin	K. lobster	L. lizard

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 18: Pre-test used in Trial 3

Name: _____ Class: _____ () Date: _____

Pre-Test 3

Put the letters into the correct boxes.

A. raisins	B. celery	C. cabbage	D. oyster	E. cucumber	F. garlic
G. lime	H. broccoli	I. avocado	J. apricot	K. mussel	L. beetroot

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 19: Post-test used in Trial 3 (*Controlled group*)

Name: _____ Class: _____ () Date: _____

Post-Test 3 (After Worksheet)

Put the letters into the correct boxes.

A. apricot	B. garlic	C. lime	D. beetroot	E. raisins	F. celery
G. cucumber	H. mussel	I. oyster	J. avocado	K. broccoli	L. cabbage

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 20: Post-test used in Trial 3 (*Experimental group*)

Name: _____ Class: _____ () Date: _____

Post-Test 3 (After Domino Game)

Put the letters into the correct boxes.

A. apricot	B. garlic	C. lime	D. beetroot	E. raisins	F. celery
G. cucumber	H. mussel	I. oyster	J. avocado	K. broccoli	L. cabbage

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐


Appendix 21: Interview questions

1. How your English teacher consolidates or revises vocabulary with you in the English lessons normally? (*Experience Question*)
2. What feeling did that provoke in you when your teacher use these methods to consolidate the vocabulary learnt? (*Feeling Question*)
3. How about domino game? What feeling did that provoke in you when you played domino game just now? (*Feeling Question*)
4. From your perspective, which methods of consolidating vocabulary do you like best? Can you tell me why? (*Evaluation, Experience and Feeling Question*)