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The Role of Negotiated Interaction in L2 Vocabulary Acquisition among Primary ESL Learners

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ABSTRACT

The roles of input and output in interaction have always been seen as an entirety in the language-learning domain. Driven by three distinctive frameworks, earlier works suggested that the Interaction Hypothesis facilitates the Input Hypothesis and the Output Hypothesis in language development. This experimental study was designed to investigate the effects of pre-modified input, negotiated interaction and output in second language (L2) vocabulary comprehension and acquisition. A sample of 45 primary school ESL learners in Malaysia with similar first language (L1) background was divided into three groups (GPIO–premodified input, GINW–negotiated input without output, GINP–negotiated input with output). Each group learned the target vocabulary items with pictures through different approaches based on the corresponding independent variables. Data from the pre-test and three post-tests were then subjected to t-tests and ANOVA. This study replicates the findings of de la Fuente (2002), which suggested that negotiated interaction benefited L2 vocabulary comprehension, and provides explanation for the apparent exceptions in the study. Analysis also reveals that a fusion of negotiated interaction and output production had positive effects on both receptive and productive acquisition. This information can be used to develop targeted interventions by incorporating interactive tasks aimed at young ESL learners in everyday classrooms for vocabulary acquisition.

Keywords: Input; output; negotiated interaction; vocabulary acquisition; primary ESL learners

INTRODUCTION

Despite formal learning of English for eleven consecutive years, Malaysian pupils are unable to attain reasonable communicative competence (Hazita 2016, Precintha, Yong & Melor 2016). While delving into the English language learning issues in Malaysian ESL classrooms, the aforementioned reports saw that pupils struggled in understanding and communicating in English with their teachers and their fellow peers who possessed higher level of English proficiency. As a result, potential employers rate undergraduates in Malaysia as unemployable due to their poor performance in communication skills (Rozmel, Zarina & Khaidzir 2018).

One of the contributing factors for the unsatisfactory communication skills is the lack of emphasis on communicative language learning activities for ESL learners in schools and universities (Rozmel, Zarina & Khaidzir 2018). English lessons that incorporate communicative activities are deemed unfavourable as errors are ignored and fluency is

stressed over accuracy. On the other hand, form-based tasks and knowledge-based examinations are given importance to gear pupils up for the public examination, widely known as UPSR (Ujian Pencapaian Sekolah Rendah) or Primary School Achievement Test (Reza Raissi & Fazirah Mohd Nor 2013, Lee 2019). Overemphasis on certain aspects of the language such as focusing on the grammatical structures and writing may subconsciously cause teachers to neglect on other areas like listening, speaking and L2 vocabulary development.

Against this background, many researchers have demonstrated that L2 vocabulary acquisition enables access to communication. In the beginning, Wagner-Gough and Hatch (1975) suggested that input is the only independent variable that promotes L2 acquisition, while output assumes a minor role. However, in 1985, Swain postulated that output might play an equal role as input in L2 acquisition. Research to date, however, has not offered conclusive findings as to which independent variable; input, output or the combination of both, offers the best approach for vocabulary acquisition. Therefore, there has been an increasing amount of literature in determining the effectiveness of different oral interactions on L2 acquisition (de la Fuente 2002, Ng & Sheila 2011, Shintani 2011, Loewen & Sato 2018, Erlam & Ellis 2018, Nguyen & Boers 2018). The researches involved the manipulation of input and output conditions and were predominantly focusing on premodified input, negotiated input and also output production. Relevant to this study, pre-modified input is described as input that is modified by the instructor to suit the target learners' current level of comprehension. This minimises comprehension barrier (Loewen & Sato 2018). The term "negotiated interaction" is defined as an interactional modification to achieve input or message comprehensibility between the interlocutors and the learners. Negotiation may be in forms of repetition, paraphrasing, form adjustments, syntactical modification and substitution of words (Saito & Akiyama 2017). Output production refers to how learners are provided the opportunity to produce in the target language (the English Language) for language use opportunities such as speaking or writing (DeKeyser 2017a).

LITERATURE REVIEW

NEGOTIATED INTERACTION FOR L2 VOCABULARY ACQUISITION

Nunan (1991) found that language use opportunities and successful communication are dependent upon the mastery of L2 vocabulary. Therefore, pupils should learn and acquire a sufficient amount of vocabulary to fully engage in verbal communication. According to Hatch (1978), the communicative process of negotiation promotes second language comprehension and the type of task that is normally involved emulates the information gap format to push learners to communicate in classrooms. Additionally, it has also been suggested that negotiated interaction promotes L2 vocabulary acquisition in terms of retention; whereby language learners will have to ability to hold the vocabulary for short-term and long-term retrieval in their memories – with particular reference to nouns (Ng & Sheila 2011).

The inquiries that motivated the current study were based on de la Fuente's work (2002), which examined the effects of three different types of oral interactions – (i) pre-modified input, (ii) negotiated input and, (iii) output production on L2 vocabulary comprehension and acquisition. Findings from her study revealed that negotiated input promoted better comprehension while output production produced better acquisition results. Aside from exploring L2 vocabulary comprehension, this present study looked into the role of negotiated interaction in ESL classrooms – dealing specifically with both receptive and

productive vocabulary acquisition.

According to Krashen's Input Hypothesis (1985), input must be made comprehensible in order for second language acquisition to take place. In combination with Krashen's work, Long's Interaction Hypothesis (1983) suggested the inclusion of negotiated interaction, in order to make input comprehensible. Subsequently, it has been found that Swain's Output Hypothesis (1985) helped with L2 vocabulary acquisition and retention. This was achieved when pupils were given the opportunity to produce L2 linguistic forms. Taken together, they comprise the underlying theoretical frameworks of the hypotheses and research questions undertaken in this study.

It is not uncommon that previous studies on negotiation primarily involved teenagers and young adults with multiple L1 backgrounds (de la Fuente 2002, Shintani 2011, Erlam & Ellis 2018, Nguyen & Boers 2018). In this regard, there is a need to investigate the role of pre-modified input, negotiated interaction and, output production in L2 vocabulary comprehension and acquisition with respect to children (primary ESL learners) who are of similar ethnic background and mother tongue. The participants were subjected to a two-way information gap format task in order to provide quantitative data as evidentiary conjecture to measure L2 vocabulary comprehension and acquisition while negotiating. L2 vocabulary acquisition may be one of the steps in enhancing communicative competence among primary ESL learners in Malaysia.

HYPOTHESES AND RESEARCH QUESTIONS

The purpose of this study is to investigate the effects of different oral interactions on new L2 vocabulary acquisition among Primary ESL learners in Kuala Langat, Malaysia. The objectives of the study are: -

i) to determine the effectiveness of negotiated input in vocabulary comprehension.
ii) to determine the effectiveness of negotiated input with and without output in receptive vocabulary acquisition.
iii) to determine the effectiveness of negotiated input with and without output in productive vocabulary acquisition.

VOCABULARY COMPREHENSION

Learners who are exposed to pre-modified input with negotiated interaction will attain higher level of vocabulary comprehension than those learners who are exposed to pre-modified input only.

1. What are the relative effects of pre-modified input and negotiated interaction on L2 vocabulary comprehension?

RECEPTIVE VOCABULARY ACQUISITION

Learners who are exposed to pre-modified input with negotiated interaction with or without output production will attain a higher level of receptive vocabulary acquisition than those learners who are exposed to pre-modified input only.

2. i) What are the relative effects of pre-modified input, negotiated interaction with and without output production on L2 receptive vocabulary acquisition?
   ii) If there is an effect, how does it affect L2 vocabulary acquisition in terms of retention (time)?

Learners who are exposed to pre-modified input with negotiated interaction with or without output production will attain a higher level of productive vocabulary acquisition than those learners who are exposed to pre-modified input only.

3. i) What are the relative effects of pre-modified input, negotiated interaction with and without output production on L2 productive vocabulary acquisition?
   ii) If there is an effect, how does it affect L2 vocabulary acquisition in terms of retention (time)?

METHODOLOGY

This research is quantitative in nature. It was decided that a quasi-experimental design, modeled after de la Fuente's (2002) experiment, is an appropriate method to test negotiated interaction and the output hypothesis in L2 vocabulary acquisition among young ESL learners in Kuala Langat, Selangor. The quantitative data was collected using pre-test, post-test and delayed post-tests.

PARTICIPANTS

TABLE 1. Sample Size Based on Stratified Random Assignment for a Primary National School in Kuala Langat, Selangor

Groups		Number of Samples	
		Gender	Total
GPIO (Control Group)	Female	8	15
	Male	7	
GINW (Experimental Group)	Female	8	15
	Male	7	
GINP (Experimental Group)	Female	8	15
	Male	7	
Total		45	45
Percentage		100	100

As illustrated in Table 1, the participants comprised of a representative sample of 45 Primary 3 pupils who studied in national primary schools in Kuala Langat, Selangor. The samples were chosen based on random sampling method (Bryman 2016, Creswell 2018). They were randomly assigned into three groups with a recommended sample size of 15 participants for each group; one control group (GPIO – pre-modified input only) and two experimental groups (GINW –negotiated input without output and GINP –negotiated input with output) based on the independent variables of interest in this study.

All participants possessed similar ethnic background and the same mother tongue, which is Malay. This information was verified through the English Language Background Questionnaires, which were distributed to the participants' parents or guardians. In terms of their academic background, all participants received formal pre-education at the age of five and primary education in primary national schools with Malay as the medium of instruction. The participants experienced formal learning in English for 300 minutes per week as set by the Ministry of Education (MOE), Malaysia (2012). The selection of participants in terms of age was closely linked to their language proficiency. All of the participants were 9 years of age. They possessed average proficiency level in English, which were measured using the standard performance band provided by the School-based Assessment Management System (SPPBS) created by the MOE (2012). The participants were in Band 2, where they were able to apply word-attack skills and spell common sight words.

PROCEDURES

The researcher trained and briefed three existing teachers as instructors and evaluators one week prior to this study. This ensured that the treatment and tests ran smoothly as the teachers had established classroom rules and the participants viewed the selected teachers as figures of authority. Additionally, the selected teachers possess Bachelor of Education in Teaching English as a Second Language (TESL) and have 6 to 7 years of teaching experience (the English Language) in primary schools. To avoid evaluator effect, the instructors for GPIO, GINW and GINP group were assigned to different groups on the first and second day. An evaluator effect may affect the results of the study (de la Fuente 2002). The instructors delivered the instructions prepared by the researcher (see Appendix A1 and Appendix A2). The instructors may modify the instructions to suit the participants' level of proficiency.

TESTED ITEMS

The selection of ten concrete nouns was based on the word list to be learnt as stipulated in the Standard Document (MOE 2012). The participants had yet to learn the ten target nouns, which was verified through the results of the pretest. This increases internal validity (de la Fuente 2002). As Laufer (1990) pointed out, noun is the easiest word class to learn followed by verbs, adjectives and adverbs, as it is a direct referral to physical objects and images. Also, previous studies proposed that lexical items that have more than four syllables are harder to learn. Therefore, the selected lexical items did not have more than four syllables (broccoli, carrot, onion, brinjal, cauliflower, pumpkin, celery, cabbage, cucumber and pepper).

TASK 1

The purpose of Task 1 was to provide basic exposure of the lexical items, which encompassed the base form and meaning of the lexical items without particular reference to any L2 morphosyntax (Shintani 2011, de la Fuente 2002). Task 1 was administered on the first day. Task 1 is a 10-minute listening comprehension task in the form of an information gap activity, with 1 minute for each target lexical item. The task was conducted in a classroom setting for all groups (GPIO, GINW and GINP). A classroom setting was selected based on the possibility that interaction might not occur in GINW and GINP, as the child might be reluctant to speak if the instructor were to conduct the task individually. Mackey and Philp (1998) further suggested that based on empirical evidence, although a child may not interact during the task in a classroom setting, the child benefited in terms of L2 vocabulary acquisition just by listening to the negotiated interaction between his peers and instructor.

Each participant was provided with 15 individual pictures of different vegetables (see Appendix B1). Ten vegetables were the target test items while another five vegetables were included as distractors to maintain motivation (Shintani 2011, de la Fuente 2002). Additionally, the participants were provided with a numbered sheet from 1 – 10 (see Appendix B2). Then, the instructor gave the baseline instructions to the participants (see Appendix C). For the GPIO group, the instructions were delivered at a slower rate. Interactions were not allowed from the participants. However, the participants may ask the instructor to repeat the instructions as many times as needed. The participants were required to paste individual pictures of the vegetables in the box provided on the numbered sheet based on the pre-modified input given. The participants had 1 minute to choose and paste a picture of a vegetable based on the input given. In both GINW and GINP groups, interaction was allowed within the time allotted. The instructions were delivered at a normal speed. The time allotted for each tested item is 1 minute, inclusive of instructions and interaction. One or

zero points were awarded based on the accuracy of each target lexical item, with a possible total of 10 points for each task.

Since the task at hand was time-based, the session lasted 10 minutes. The task was repeated and the orders of the test items were altered to avoid task effect. However, the roles of the participant and the instructor were reversed in the second session for the GINP group. Each participant had to instruct the instructor to locate each target lexical items. The instructors were given 1 minute to listen and negotiate meaning with the participant to paste an individual picture in the box provided on the numbered sheet for each lexical item. Each participant in GINP group was given the opportunity to modify his or her output and produce the tested items in L2. Interactions and questions on the tested items were allowed from the participants. The purpose of this task was to encourage language production. The total time taken for Task 1 would be 20 minutes.

TASK 2

The purpose of Task 2 was to increase the exposure of the lexical items to all groups. The session was conducted the following day. This time around, instead of a numbered sheet, each participant was provided with a picture of an empty kitchen with labels on different furniture (see Appendix B3). It is important to note that the participants in all groups had learnt the names of the furniture (fridge, window, floor, table, cabinet and chair) and prepositions used in the instructions (on, in). The procedure is similar to Task 1 including the time allotment and order of the test items presented (see Appendix A2 and C). The task was also repeated.

MEASURES

Three testing instruments were administered to the 3 groups (GPIO, GINW and GINP). Firstly, a listening comprehension task, adapted from de la Fuente (2002), to measure vocabulary comprehension. The second and third testing instruments were the two Vocabulary Knowledge Scale (VKS) tests, adapted from Wesche and Paribakth (1996), to measure receptive (RVKS) and productive vocabulary acquisition (PVKS) respectively (see Appendix D).

VKS is classified as a self-reflective five-point assessment scale assessed by the learners for vocabulary acquisition. For the purpose of this study, the VKS test had been modified to a four-point scale. Schmitt (2010) asserted that if the five-point scale has been reduced to four, the test may not be able to gauge the gradual mastery of lexical items beyond word level. However, for the purpose of this study, a four-point scale was applicable because the research objectives did not intend to measure mastery of lexical items in context. Although Wesche and Paribakth (1996) developed the VKS test to assess adult ELL learners in college, this effective test is widely available and has been modified and used in many investigational studies that are primarily concerned with elementary ESL learners (Ma & Lee 2019). Aside from reporting ESL learners' self-assessment scale on their vocabulary acquisition, the learners would also have to demonstrate their knowledge based on the scales reported.

The VKS test for productive acquisition was conducted first to avoid test effects followed by the VKS test for receptive acquisition. Four sets of scores were gathered from one pre-test and three post-tests for receptive and productive vocabulary acquisition. The pre-test was administered before the treatment. The first post-test was administered a day after the treatment to determine the participants' immediate vocabulary retention while the second post-test was administered a week later to determine the participants' delayed vocabulary

retention. Finally, the third post-test was administered 3 months later to ascertain the participants' vocabulary retention in the long term. To avoid task effects or familiarity, the order of the items tested was altered. The vocabulary comprehension was administered in the designated groups (GPIO, GINW and GINP) during the experiment whereas, the VKS tests for receptive and productive vocabulary acquisitions were administered individually. The processes of the VKS tests were video recorded to ensure consensus in assessment among the three evaluators, who were also the instructors. The total time allotted for the three tests was 30 minutes. The minimum score for each test is 0 and the maximum score is 10.

VOCABULARY COMPREHENSION

The first listening comprehension task (Task 1) served as the vocabulary comprehension test. Their vocabulary comprehension was measured based on the scores collected out of 10 while performing the task. The evaluator delivered the instructions provided by the researcher to the participants. The participants were required to paste the individual picture in the box provided on the numbered sheet. One or zero points were awarded based on the accuracy of each target lexical item, with a possible total of 10 points for each task.

RECEPTIVE AND PRODUCTIVE VOCABULARY ACQUISITION

In order to measure receptive and productive vocabulary acquisition, the VKS test was conducted individually in the evaluator's room. Each participant was provided a receptive four-point vocabulary knowledge scale. The evaluator briefed the four scales to the participant (see Appendix D).

For receptive VKS, the participant may point to Scale 1 – if they did not remember having heard the word before, Scale 2 – if they heard the word before, but did not know what it means, Scale 3 – if they heard the word before, and think it meant _____ (translated in L1) or Scale 4 – if they know the word and it meant _____ (translated in L1 or L2). The evaluator said aloud each tested items twice to the participant. The participant had to listen to each word carefully and select one of the four-point scales that best described their receptive vocabulary acquisition. For the receptive acquisition test, scores were awarded when participants were able to identify and translate the vocabulary spoken by the evaluator in their mother tongue or L2 based on the knowledge of form and meaning (Milton 2009). 0 points were awarded if participants pointed to Scale 1 or 2 while 1 point was awarded if participants pointed to Scale 3 or 4, provided the participants said aloud the correct translation (or produced in L2) of the tested item produced. One minute was allotted for each tested item.

For productive VKS, the participant may point to Scale 1 – if they did not know the image, Scale 2 – if they did not remember how to say the image in L2, Scale 3 – if they thought it was a _____ (produce in L2) or Scale 4 – if they knew it was a _____ (produce in L2). Then, the evaluator showed pictures of each tested item to the participants individually on the evaluator's desk. The participants had to look at the pictures one by one carefully and point to one of the four-point scales that best described their productive vocabulary acquisition. However, their productive acquisition was measured based on their ability to orally demonstrate each tested item in L2. One minute was allotted for each tested item. The scores were awarded if participants were able to demonstrate and produce the vocabulary in L2 regardless of morphological inaccuracies. To illustrate, if participants are able to provide the whole word irrespective of minimal pronunciation mistakes (eg. '*cauyeeflower*' for 'cauliflower'), scores will be awarded. However, if participants are not able to provide the whole word (eg. '*broco*' for 'broccoli'), no scores will be awarded.

DATA ANALYSIS

The data set was subjected to the SPSS Version 21 treatment. The data were visually expressed and reported through descriptive statistics followed by inferential statistics. The mean, standard deviation and significant difference of each question were calculated. For Research Question 1, in order to measure L2 vocabulary comprehension, the significant difference between the mean scores of the first listening comprehension task between two groups (GPIO and GINW + GINP) was analysed with an independent sample t-test. For Research Questions 2 and 3, in order to measure receptive and productive vocabulary acquisition, the significant difference between the mean scores of the VKS test for receptive and productive acquisition of three groups (GPIO, GINW and GINP) was analysed with a 3 x 3 repeated measures of ANOVA. The repeated measures adhere to the multifactorial design which attempts to analyse the mean scores within-subject design (Pre-test vs. Post-test 1 vs. Post-test 2 vs. Post-test 3) and the mean scores between-subject design (GPIO vs. GINW vs. GINP groups). If the ANOVA showed any form of significance, a post hoc Scheffé test was conducted to determine the group that performed significantly better than the other. Based on the SPSS output, the results were interpreted and analysed in the light of relevant literature on the positive effects of negotiated interaction with or without output towards L2 vocabulary acquisition or revealed no significant difference.

FINDINGS

EFFECTS OF NEGOTIATED INTERACTION ON COMPREHENSION

In order to ascertain the significant difference between the Listening Comprehension Task (LCT) test scores of the group with pre-modified input (GPIO) and the group with negotiated input (GINW and GINP), an independent samples t-test was employed to analyze the mean scores obtained by the control and experimental groups. The GINW and GINP test scores are combined because both groups have a similar variable, which is negotiated interaction. Both GINW and GINP group performed the same interactive task during the first round of the listening comprehension task.

Based on the results of the independent samples t-test in Table 2, t (43) = -12.735, p = .000, 95% Cl [-4.28, -3.11], since the significant value was lesser than alpha at 0.5 level of significance, there was sufficient evidence to reject null hypothesis. It can be concluded that negotiated input had a significant effect on the primary ESL learners' L2 vocabulary comprehension.

TABLE 2. Independent Samples Test for LCT

Levene's Test for Equality of Variances		t-test for Quality of Means						
F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
.833	.366	-12.735	43	.000	-3.700	.291	-4.286	-3.114

EFFECTS OF NEGOTIATED INTERACTION ON RECEPTIVE VOCABULARY ACQUISITION

In order to ascertain the significant difference of the Receptive Vocabulary Acquisition Scale (RVKS) test scores from the three groups of different types of negotiation (GPIO, GINW and GINP), a 3x3 mixed design ANOVA was employed to analyze the mean scores obtained by

the control and experimental groups. The ANOVA will provide the between-subjects test effects, which was the type of negotiation (GPIO vs. GINW VS. GINP) and the within-subject test effects, which was the time factor (Test 1 vs. Test 2 vs. Test 3).

The output of the ANOVA in Table 3 reported significance between groups in terms of types of negotiation, F value of 242.496, p = .000. Based on the ANOVA results, since the significant value was lesser than alpha at 0.5 level of significance, there was sufficient evidence to reject null hypothesis. It can be concluded that the type of negotiation had significant effects on the learners' L2 receptive vocabulary acquisition. However, the output of the ANOVA reported no significant difference in terms of the time factor, F value of .358, p = .700 and the interaction between types of negotiation and time, F value of .213, p = .931. Based on the ANOVA results, since the significant value were greater than alpha at 0.5 level of significance, it can be concluded that time and interactions between types of negotiation and time have no significant effects on the learners' L2 receptive vocabulary acquisition.

TABLE 3. ANOVA for Receptive Acqusition

Source	SS	Df	MS	F	Sig.
Corrected Model	372.770	8	46.596	60.820	.000
Intercept	5326.696	1	5326.696	6952.663	.000
Time	.548	2	.274	.358	.700
T. of Negotiation	371.570	2	185.785	242.496	.000
Time X T. of Negotiation	.652	4	.163	.213	.931
Error	96.533	126	.766		
Total	5796.000	135			
Corrected Total	469.304	134			

In order to determine the significance difference between each group, a Scheffé post hoc comparison for receptive acquisition was conducted. The significance level is determined at 0.001 level of significance (alpha, α = .001). Based on the results as illustrated in Table 4, there are significant differences between two combinations of types of negotiation. The overall significant difference between the GPIO group and the GINW group is (3.96 vs. 7.18) p = .000, the GPIO group and the GINP group is (3.96 vs. 7.71) p = .000, while the GINW group and the GINP group is (7.18 vs. 7.71) p = .015. In other words, both negotiated input with and without output group (GINW and GINP) outperformed the group with pre-modified input. However, there was no significant difference between the group with negotiated input with output production (GINP) and the group with negotiated input (GINW). The post hoc comparison was not used for time, as there was no effects of time on receptive vocabulary retention were found. Briefly put, none of the conditions of the experiment was superior to the other in allowing learners to retain the target words receptively.

TABLE 4. Scheffé Post Hoc Comparisons for Receptive Acquisition by Group

(I) T. of Negotiation	(j) T. of Negotiation	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
GPIO	GINW	-3.22*	.185	.000	-.3.68	-2.77
	GINP	-3.76	.185	.000	-4.21	-3.30
GINW	GPIO	3.22*	.185	.000	2.77	3.68
	GINP	-5.3	.185	.015	-.99	-.08
GINP	GPIO	3.76*	.185	.000	3.30	4.21
	GINW	.53	.185	.015	.08	.99

*. *The mean difference is significant at the 0.001 level*

To measure the significant difference of the Productive Vocabulary Acquisition Scale (PVKS) test scores from the three groups of different types of negotiation (GPIO, GINW and GINP), a similar statistical procedure that was used for Research Question 2 is also used in Research Question 3.

The output of the ANOVA in Table 5 reported significance between groups in terms of types of time factor, F value of 69.735, p = .000 and the types of negotiation, F value of 634.457, p = .000. Apart from that, the output of the ANOVA also reported significant effects in terms the interaction between types of negotiation and time, F value of 33.076, p = .000. Based on the ANOVA results, since the significant value was lesser than alpha at 0.5 level of significance, it can be concluded that the time taken for all the posttests and the type of negotiation had significant effects on the learners' L2 productive vocabulary acquisition.

TABLE 5. ANOVA for Productive Acquisition

Source	SS	Df	MS	F	Sig.
Corrected Model	471.970	8	58.996	191.586	.000
Intercept	1934.230	1	1934.230	6281.261	.000
Time	42.948	2	21.474	69.735	.000
T. of Negotiation	388.281	2	194.141	630.457	.000
Time X T. of Negotiation	40.741	4	10.185	33.076	.000
Error	39.800	126	.308		
Total	2445.000	135			
Corrected Total	510.770	134			

In order to determine the interaction between time and type of negotiation, the mean scores for the three groups of the three posttests were analyzed individually with ANOVA. Based on the output as displayed in Table 6, there were significant differences for the type of negotiation on Test 1, F (2,42) = 152.904, p = .000, Test 2, F (2,42) = 114.980, p = .000 and Test 3, F (2, 42) = 404.364, p = .000.

TABLE 6. ANOVA for Productive Vocabulary Acquisition by Test

Test/Source	Df	SS	MS	F	Sig.
Test 1					
T. of negotiatian	2	80.578	40.289	152.904	.000
Residual	42	11.067	.,263		
Test 2					
T. of negotiatian	2	73.733	36.867	114.980	.000
Residual	42	13.467	.321		
Test 3					
T. of negotiatian	2	273.711	137.356	404.364	.000
Residual	42	14.267	.340		

To measure the significant differences between each group, a Scheffé post hoc comparisons for receptive acquisition was conducted as illustrated in Table 7. There were no significant differences between the GPIO and the GINW group in the three tests (Test 1 2.27 vs. 2.47, p = .570; Test 2 2.40 vs. 2.73, p = .283; Test 3 2.67 vs. 3.00, p = .304). In contrast, the post hoc comparisons revealed significant differences between the GPIO and GINP group in the three tests (Test 1 2.27 vs. 5.20, p = .000; Test 2 2.73 vs. 5.27, p = .000; Test 3 3.13 vs. 8.07, p = .000). Similarly, there were significant differences between the GINW and GINP group in all the tests (Test 1 2.47 vs. 5.20, p = .000; Test 2 2.73 vs. 5.27, p = .000; Test 3 3.13 vs. 8.07, p = .000). This indicates that the GINP group managed to produce more words significantly than the GPIO and GINW group for short-term and long-term retention.

To find out the significant difference of time on L2 productive vocabulary acquisition, the mean scores for the three groups of the three posttests were subjected to repeated measures of ANOVA with one-within-subject (Test 1 vs. Test 2 vs. Test 3). The ANOVA results presented in Table 8 revealed that there was no significant difference for the two groups (GPIO F = 2.649, p = .083; GINW F = 3.055, p = .058). Conversely, there was a significant effect of time for the GINP group (F =118.215, p = .000).

TABLE 7. Scheffé Post Hoc Comparisons for Receptive Acquisition by Test

Dependent Variable	(I) T. of negotiation	(j) T. of negotiation	Mean Difference (I-J)	Std. Error	Sig.	99.9% Confidence Interval Lower Bound	Upper Bound
Test 1	GPIO	GINW	-.200	.187	.570	-.96	.56
		GINP	-2.933*	.187	.000	-3.69	-2.18
	GINW	GPIO	.200	.187	.570	-5.6	.96
		GINP	-2.733*	.187	.000	-3.49	-1.98
	GINP	GPIO	2.933*	.187	.000	2.18	3.69
		GINW	2.733*	.187	.000	1.98	3.49
Test 2	GPIO	GINW	-3.33	.207	.283	-1.17	.50
		GINP	-2.867*	.207	.000	-3.70	-2.03
	GINW	GPIO	.333	.207	.283	-.50	1.17
		GINP	-2.533*	.207	.000	-3.37	-1.70
	GINP	GPIO	2.867*	.207	.000	2.03	3.70
		GINW	2.533*	.207	.000	1.70	3.37
Test 3	GPIO	GINW	.133	.230	.304	-.80	1.06
		GINP	-4.933*	.230	.000	-5.86	-4.00
	GINW	GPIO	-.133	.230	.304	-1.06	.80
		GINP	-5.067*	.230	.000	-6.00	-4.14
	GINP	GPIO	4.933*	.230	.000	4.00	5.86
		GINW	5.067*	.230	.000	4.14	6.00

**. The mean difference is significant at the 0.001 level*

TABLE 8. ANOVA for Productive Acquisition by Group

		SS	Df	MS	F	Sig.
GPIO	Between Groups	1.244	2	.622	2.649	.083
	Within Groups	9.867	42	.235		
	Total	11.111	44			
GINW	Between Groups	2.133	2	1.067	3.055	.058
	Within Groups	14.667	42	.349		
	Total	16.800	44			
GINP	Between Groups	80.311	2	40.156	118.215	.000
	Within Groups	14.267	42	.340		
	Total	94.578	44			

Based on Table 9, the mean comparisons for the GINP group showed no significant differences between Test 1 and Test 2 (5.20 vs. 5.27, p = .952). On the other hand, there were significant differences in two combinations of groups; Test 1 and Test 3 (5.20 vs. 8.07, p = .000) and Test 2 and Test 3 (5.27 vs. 8.07, p = .000). Based on the post hoc results, since the significant value was lesser than alpha at 0.5 level of significance, there was sufficient evidence to reject null hypothesis. This indicates that the participants from the GINP group are able to produce more words significantly for the third test.

TABLE 9. Mean Comparisions for Productive Acquisition: GNIP Group

(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Test 1	Test 2	-.067	.213	.952	-.61	.47
	Test 3	-2.867*	.213	.000	-3.34	-2.33
Test 2	Test 1	.067	.213	.952	-.47	/61

	Test 3	-2.800*	.213	.000	-3.34	-2.26
Test 3	Test 1	2.867*	.213	.000	2.33	3.41
	Test 2	2.800*	.213	.000	2.26	3.34

**. The mean difference is significant at the 0.05 level*

DISCUSSION & EDUCATIONAL IMPLICATIONS

From the hypotheses formulated in the study, it can be concluded that:

1. Learners who were given the opportunity to negotiate for meaning attained a higher level of vocabulary comprehension than those learners who were exposed to pre-modified input only.
2. Learners who were given the opportunity to negotiate and produce output attained a higher level of receptive vocabulary acquisition than those learners who were exposed to pre-modified input only. Apart from that, there was significant difference between learners who were exposed to negotiation and output and learners who were given the chance to negotiate only.
3. Learners who were given the opportunity to negotiate and produce output attained a higher level of productive vocabulary acquisition than those learners who were exposed to pre-modified input only. Similar to receptive acquisition, output production appeared to have differential effects on productive vocabulary acquisition than learners who were given the chance to negotiate only.

Based on this experimental study, negotiation and output production have been proven to be more beneficial for the experimental groups to acquire lexical items than those in the control group. Presently, despite the valuable benefits offered by interactive activities, they have been regarded as unfeasible due to time constraints as language teachers are pressured to complete the syllabus in time. However, the evidence gathered from this study suggests that teachers should conduct interactive activities as part of the syllabus and thus provide opportunities for learners to interact and practice the target language in ESL classrooms. Furthermore, interactive tasks present learners with the opportunity to experience interesting and enjoyable lessons and thereby ensure that their motivation is sustained. To encapsulate, the results of this research support the idea that school authorities should acknowledge the pertinent role of negotiation in the field of SLA, which would alleviate the mentioned pressure.

CONCLUSION

The study examined the roles of input and output in interaction among a group of 45 primary school ESL learners and has shown the significant impact of negotiated interaction in developing L2 vocabulary acquisition. The findings confirmed the positive effects of the existing interaction hypothesis framework, specifically in facilitating the role of comprehensible output (Swain 1985, 1995) and comprehensible input (Krashen 1985) in L2 vocabulary comprehension, receptive and productive vocabulary acquisition. In relation to theoretical implications, the study may contribute to another literature of negotiated interaction and output production. Additionally, enriched with the works of Long (1996) and Gass (2018), hypothesis testing and noticing the gap as a result of attention may be one of the determinant factors in the interaction to promote L2 vocabulary development.

However, a number of caveats need to be noted regarding the present study. Firstly, the current research was not specifically designed to evaluate variables related to other word classes and more complex aspect of lexical acquisition. Therefore, further research should be done to investigate the other word classes (e.g. verbs, adjectives, adverbs) and other aspects

of lexical acquisition (e.g. associations, collocations). Apart from that, the present study utilised one-way interactive tasks to examine L2 vocabulary comprehension and acquisition that yielded positive results. Thus, a future study employing information gap tasks between pupils in pairs would be very interesting. Finally, it is also important to note that with a small sample size, caution must be applied, as the findings might not be transferable to other language learners of different educational settings. Larger samples of participants could provide more definitive evidence.

REFERENCES

Bryman, A. (2016). *Social Research Methods* (5th ed.). Oxford, England: Oxford University Press.

Creswell, J. W. (2018). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research* (6th ed.). Upper Saddle River , NJ: Pearson Education.

Ministry of Education, (2012). Performance *standard document KSSR English language year 3*. Retrieved January 10, 2019 from KSSR Online website: https://onedrive.live.com/view.aspx?resid=E282FD7928D2FF3!706&app=Word%20Curriculum%20Development%20Centre.%20Ministry%20of%20Education,%20(2011).%20Standard%20document%20KSSR%20English%20language

DeKeyser, R. (2017a). Knowledge and skill in ISLA. In S. Loewen and M. Sato (Eds.). *Routledge Handbook of Instructed Second Language Acquisition* (pp. 15-32). London: Routledge.

de la Fuente, M. J. (2002). Negotiation and oral acquisition of L2 vocabulary: The roles of input and output in the receptive and productive acquisition of words. *Studies in Second Language Acquisition. 24*, 81-112.

Erlam, R. & Ellis, R. (2018). Task-based language teaching for beginner-level learners of L2 French: An exploratory study. *Canadian Modern Language Review. 74*(1), 1–26.

Gass, S. (2018). *Input, Interaction, and the Second Language Learner.* New York, NY: Routledge.

Hatch, E. (Ed). (1978). *Second Language Acquisition: A Book of Readings.* Rowley, MA: Newbury House.

Hazita, A. (2016). Implementation and challenges of English language education reform in Malaysian primary schools. *3L: The Southeast Asian Journal of English Language Studies. 22*(3), 65 – 78.

Krashen, S. (1985). *The Input Hypothesis: Issues and Implications*. London, England: Longman.

Laufer, B. (1990). Words you know: How they affect the words you learn. In J. Fisiak (Ed.). *Further Insights into Contrastive Linguistics* (pp. 573–593). Amsterdam, Netherlands: John Benjamins.

Lee, S. Y. (2019). Promoting active learning and independent learning among primary school student using flipped classroom. *International Journal of Education, Psychology and Counseling. 4*(30), 324-341.

Loewen, S. & Sato, M. (2018). Interaction and instructed second language acquisition. *Language Teaching. 51*, 285-329.

Long, M. H. (1983). Native speaker/non-native speaker conversation in the second language classroom. In M. Clark, M. & Handscombe, J. (Eds.). *On TESOL '82*: *Pacific Perspectives on Language Learning* (pp. 207-25). Washington, D.C., WA: TESOL.

Long, M. H. (1996). The role of the linguistic environment in second language acquisition. In W. C. Ritchie & T. K. Bhatia (Eds.), *Handbook of Second Language Acquisition* (pp. 413–468). San Diego, CA: Academic Press.

Mackey, A. & Philp, J. (1998). Conversational interaction and second language development: Recasts, responses, and red herrings? *The Modern Language Journal. 82*, 338-356.

Ma, Q. & Lee, H.Y. (2019) Measuring the vocabulary knowledge of Hong Kong primary school second language learners through word associations: Implications for reading literacy. In: Reynolds, B. & Teng, M. (Eds.). *English Literacy Instruction for Chinese Speakers*. Palgrave Macmillan, Singapore.

Milton, J. (2009). *Measuring Second Language Vocabulary Acquisition*. Clevedon, England: Multilingual Matters.

Ng, L.L. & Sheila M. S. (2011). L2 vocabulary acquisition: The impact of negotiated interaction. *GEMA Online™ Journal of Language Studies. 11*(2), 5-20.

Nguyen, C. D. & Boers, F. (2018). The effect of content retelling on vocabulary uptake from a TED talk. *TESOL Quarterly. 52* (1), 1-25.

Nunan, D. (1991). *Language Teaching Methodology*. London, England: Prentice Hall International.

Precintha, R. P. J., Yong, K. L. & Melor, M. Y. (2019). Hear me out! Digital storytelling to enhance speaking skills. *International Journal of Academic Research in Business and Social Sciences. 9*(2), 190–202.

Reza Raissi & Fazirah Mohd Nor. (2013, March). *Teachers' perceptions and challenges regarding the implementation of communicative language teaching (clt) in Malaysian secondary schools.* Paper

presented at Proceeding of the Global Summit on Education 2013. Malaysia: Universiti Teknologi Malaysia, March.

Rozmel, A. L., Zarina, O. & Khaidzir, I. (2018). E.X.P.E.R.T role play technique for workplace readiness. *3L: The Southeast Asian Journal of English Language Studies. 24*(1), 128-144.

Saito, K. & Akiyama, Y. (2017). Video-based interaction, negotiation for comprehensibility, and second language speech learning: A longitudinal study. *Language Learning. 67*(1), 43–74.

Schmitt, N. (2010). *Researching Vocabulary: A Vocabulary Research Manual*. Basingstoke, England: Palgrave Macmillan.

Shintani, N. (2011). Input-based tasks and the acquisition of vocabulary and grammar: A process-product study. *Language Teaching Research. 16* (2), 253- 279.

Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. Gass & C. Madden (Eds.). *Input in Second Language Acquisition* (pp. 235–253). Rowley, MA: Newbury House.

Swain, M. (1995). Three functions of output in second language learning. In G. Cook & B. Seidlhofer (Eds.). *Principle and Practice in Applied Linguistics: Studies in Honor of William E. Rutherford* (pp. 125–144). Oxford, England: Oxford University Press.

Wagner-Gough, J. & Hatch, E. (1975). The importance of input data in second language acquisition studies. *Language Learning. 25*, 297-307.

Wesche, M. B. & Paribakth, T. (1996). Assessing second language vocabulary. *The Canadian Modern Language Review. 53*, 13–41.

APPENDIX A1: INFORMATION GAP TASK 1 (INSTRUCTIONS)

DIRECTIONS FOR TASK 1 (GPIO GROUP)

The map contains 10 pictures of vegetables. Find the correct vegetables and paste them on this numbered sheet. You are not allowed to ask anything, so listen carefully. For each vegetable, you will have one (1) minute to find and paste it. You will not be able to change your answer. If you do not know answer, leave the space blank.

DIRECTIONS FOR TASK 1 (GINW GROUP)

The map contains 10 pictures of vegetables. Find the correct vegetables and paste them on this numbered sheet. You can ask any questions in English, if you do not understand. For each vegetable, you will have one (1) minute to find and paste it. You will not be able to change your answer. If you do not know answer, leave the space blank.

DIRECTIONS FOR TASK 1 (GINP GROUP)

PART 1

The map contains 10 pictures of vegetables. Find the correct vegetables and paste them on this numbered sheet. You can ask any questions in English, if you do not understand. For each vegetable, you will have one (1) minute to find and paste it. You will not be able to change your answer. If you do not know answer, leave the space blank.

PART 2

You have to give instructions in English, so that I can find the correct vegetables. Please ask questions in English if you do not know the words, but do not show the drawings to me. You can talk to me in English so your instructions are understood. For each vegetable, you will have one (1) minute.

APPENDIX A2: INFORMATION GAP TASK 2 (INSTRUCTIONS)

DIRECTIONS FOR TASK 2 (GPIO GROUP)

The map contains 10 pictures of vegetables. Find the correct vegetables and paste them according to the correct places in the kitchen. You are not allowed to ask anything, so listen carefully. For each vegetable, you will have one (1) minute to find and paste it on the correct place in the kitchen. You will not be able to change your answer.

DIRECTIONS FOR TASK 2 (GINW GROUP)

The map contains 10 pictures of vegetables. Find the correct vegetables and paste them according to the correct places in the kitchen. You can ask any questions in English, if you do not understand. For each vegetable, you will have one (1) minute to find and paste it on the correct place in the kitchen. You will not be able to change your answer.

DIRECTIONS FOR TASK 2 (GINP GROUP)

PART 1

The map contains 10 pictures of vegetables. Find the correct vegetables and paste them according to the correct places in the kitchen. You can ask any questions in English, if you do not understand. For each vegetable, you will have one (1) minute to find and paste it on the correct place in the kitchen. You will not be able to change your answer.

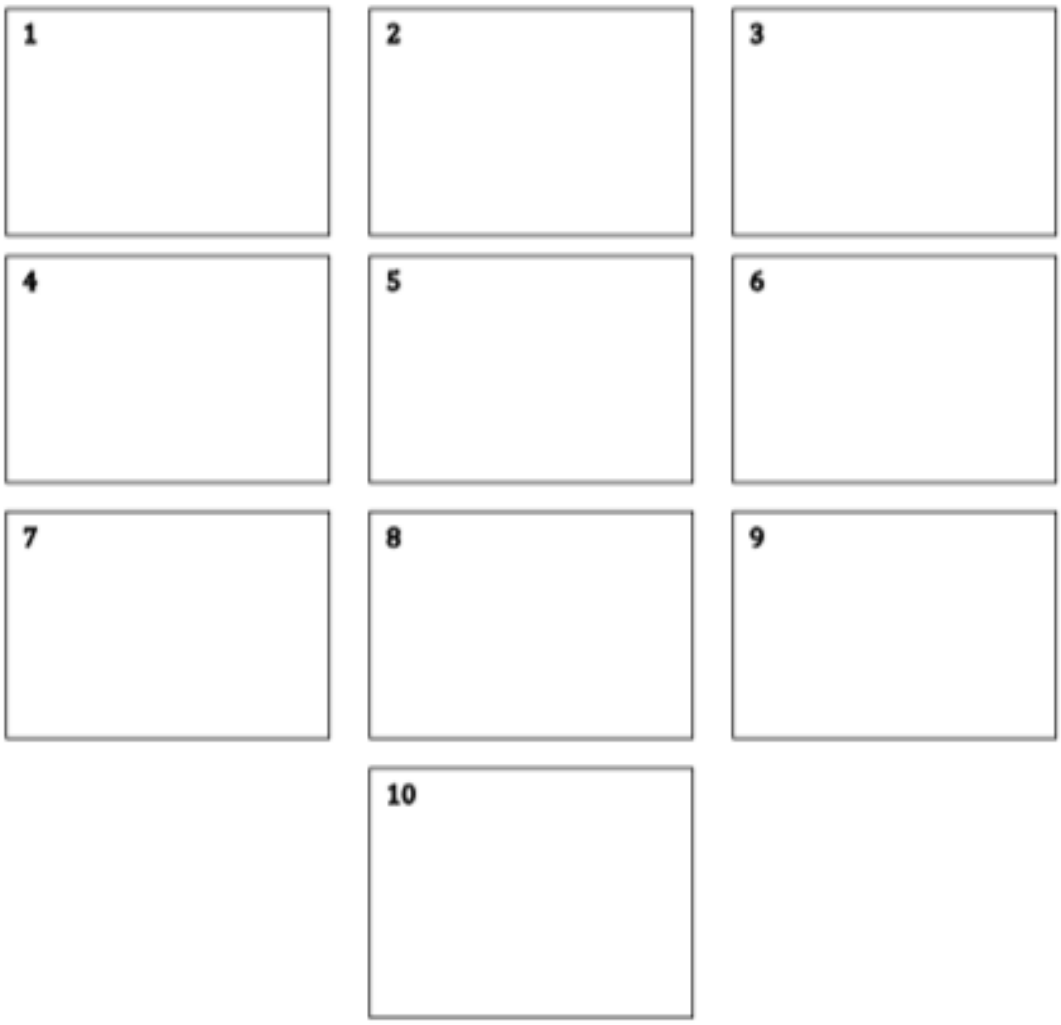
PART 2

Now, using the map that contains the vegetables placed in different parts of the room, give instructions in English to me, so I can place the vegetables in my map. You are allowed to ask and answer all the questions in English in order to perform the task successfully. There will be a maximum of one (1) minute for each vegetable.

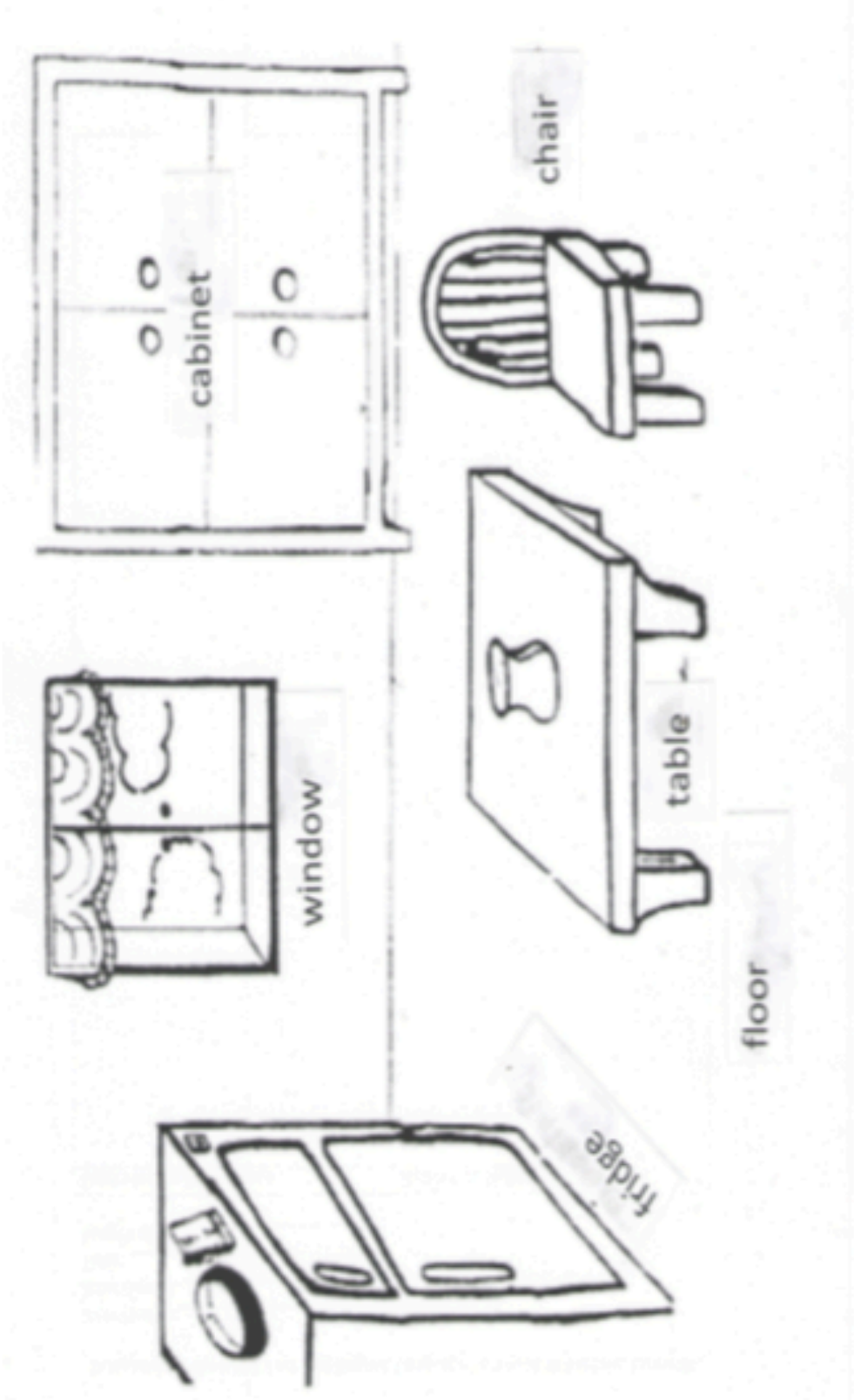
APPENDIX B1: PICTURES OF TARGET ITEMS

Distractors:

APPENDIX B2: TASK 1 (NUMBERED SHEET)



APPENDIX B3: TASK 2 (KITCHEN MAP)



APPENDIX C: BASELINE INSTRUCTIONS FOR TASK 1 AND TASK 2

TASK 1

1. I am a **brocolli**. I am green. I taste good raw, steamed, sauteed, or roasted. I look like a small tree.
2. I am a **carrot**. I am long and orange. I grow underneath the ground. I can be eaten raw or cooked. I help keep eyes healthy.
3. I am an **onion**. When you cut me up, I will make you cry. I smell really strong, but I don't know why.
4. I am a **brinjal**. I am purple outside and white inside. My skin is smooth. I taste good with curry.
5. I am a **cauliflower**. I am white. I have a heavy flower. When I am eaten raw, I am crunchy.
6. I am a **pumpkin**. I am big, round and orange. You can make me into a pie or a soup.
7. I am a **celery**. I am green. I have a long stem. I am crunchy when you bite into me. I have a lot of fiber. I am green.
8. I am a **cabbage**. I am round and green. I have many layers of leaves. I taste good boiled and sautéed.
9. I am a **cucumber**. I am long and green. I am also juicy. You can eat me raw. Sometimes, people use me as an eye mask.
10. I am a **pepper**. I am red and sweet. My seeds are hot but you can grind them. You can shake and put on your food. I am bell-shaped.

TASK 2

1. Put the **broccoli** on the cabinet. I am green. I taste good raw, steamed, sauteed, or roasted. I look like a small tree.
2. Put the **carrot** on the table. I am long and orange. I grow underneath the ground. I can be eaten raw or cooked. I help keep eyes healthy.
3. Put the **onion** on the chair. When you cut me up, I will make you cry. I smell really strong, but I don't know why.
4. Put the **brinjal** on the floor. I am purple outside and white inside. My skin is smooth. I taste good with curry.
5. Put the **cauliflower** in the fridge. I am white. I have a heavy flower. When I am eaten raw, I am crunchy.
6. Put the **pumpkin** on the floor. I am big, round and orange. You can make me into a pie or a soup.
7. Put the **celery** in the window. I am green. I have a long stem. I am crunchy when you bite into me. I have a lot of fiber. I am green.
8. Put the **cabbage** on the fridge. I am green. I have many layers of leaves.
9. Put the **cucumber** on the table. I am long and green. I am also juicy. You can eat me raw. Sometimes, people use me as an eye mask.
10. Put the **pepper** in the cabinet. I am red and sweet. My seeds are hot but you can grind them. You can shake and put on your food. I am bell-shaped.

APPENDIX D: TESTING INSTRUMENTS (RVKS AND PVKS)

PART 1: RECEPTIVE VOCABULARY KNOWLEDGE TEST

RECEPTIVE VOCABULARY KNOWLEDGE SCALE

1. I do not remember having heard that word before.
2. I have heard that word before, but I do not know what it means.
3. I have heard that word before, and I think it means (say translation).
4. I know that word. It means (say translation).

PART 2: PRODUCTIVE VOCABULARY KNOWLEDGE TEST

PRODUCTIVE VOCABULARY KNOWLEDGE SCALE

1. I have never produced the word in English for that image. I do not know it.
2. I have produced that word before, but I can't remember.
3. I think that is a _____ in English.
4. I know that is a _____ in English.