

MEANS TO ENHANCE VOCABULARY ACQUISITION BY PRE-BEGINNING  
L2 STUDENTS IN AN INTENSIVE ENGLISH LEARNING SITUATION

A RESEARCH PROJECT  
SUBMITTED TO THE GRADUATE SCHOOL  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE  
MASTERS OF ARTS

BY

DIANE BROOKS

DR. MARY THERESA SEIG - ADVISOR

BALL STATE UNIVERSITY

MUNCIE, INDIANA

MAY 2014

**Dedication:** I choose to dedicate this work to my mother, Janice Largent, without whom my family would have suffered considerably. She worked hours in my stead, keeping my children clean, fed, and happy. Her devotion to us has been a Godsend.

**Acknowledgement:** I would like to acknowledge the Linguistics and TESOL professors at Ball State University for showing me the value of linguistics and the joy of TESOL. My time in the Intensive English Institute has been an incredible opportunity to learn from International students, to practice what I have learned, to create materials, and to interact with other TESOL instructors. I am a better person than I was when I entered as a non-traditional graduate student three years ago due to the guidance, support, and camaraderie in the IEI.

**Table of Contents**

Dedication and Acknowledgement ..... 2

Introduction ..... 3

Literature Review ..... 5

    Vocabulary Acquisition ..... 6

    Reading as a means to learn vocabulary ..... 8

    Computer Assisted Language Learning as a means to learn vocabulary ..... 12

    Project Based Learning as a means to learn vocabulary ..... 16

Method ..... 19

    Participants ..... 19

    Materials and Tasks ..... 21

        Class A, Day 1 ..... 22

        Class B, Day 1 ..... 24

        Class A and Class B, Day 2 ..... 24

        Class A, Day 3 ..... 25

        Class B, Day 3 ..... 26

        Class A and Class B, Day 4 ..... 26

Results ..... 28

    Quiz Results ..... 28

    Survey Results ..... 32

Conclusion ..... 34

    Short comings ..... 35

    Implications for teaching ..... 35

References ..... 37

Appendix List ..... 44

List of Tables and Charts

    Table 1, Two systems that serve memory ..... 15

    Table 2, the Buck Institute’s conceptualization of Project Based Learning . 17

    Table 3, Project Based Learning vocabulary acquisition suggestions ..... 18

    Table 4, Averages and Standard Deviations for Class A and Class B ..... 21

    Table 5, Initial assessment quiz scores ..... 30

    Table 6, Post study quiz scores by component ..... 31

    Chart 1, Daily plans for research unit ..... 23

## Introduction

More than 800,000 international students studied in U.S. colleges and universities in 2013 (Heavey, 2013). To be exact, those 819,644 international students represent 3.9% of U.S. higher education total student population (Open Doors Data, 2013). According to the Institute of International Education, 41% of the international students are undergraduates, 38% are graduate students, 12% are in optional practical training, and 9% are non-degree persons. Programs for business management draw approximately 22% of the international students while 19% of the students are in engineer studies, and 10% more are in the mathematics and computer science fields. Students are recruited for many reasons, but the fact that most international students pay full tuition is a prime reason. Students are funded, typically, in one of four ways: personal and family funding (64%), U.S. college or university money (21%), other sources (9%), and foreign government or university funding (7%) (2013). These students bring in \$24,000,000,000 into the U.S. economy during the 2012/2013 school year (U.S. Dept. of Commerce, as quoted in Open).

Paying full tuition for semesters where students are not in their academic fields causes concern for families and governments who sponsor these international students. Students feel the pressure and stress of needing acculturation and English remediation. Often, students arrive on campus and face a battery of tests only to find that their English is not advanced enough to enter their chosen fields right away. Many universities in the United States have tried to rectify the disparity between what the students know and what they need to know by providing a variety of services. Oregon State University, for instance, has partnered with a private company, *Into University Partnerships*, to prepare students in a year to enter the mainstream classes at OSU. They then enter as sophomores. Their classes are a blend of what the traditional students receive, but with added emphasis on language and culture learning (Pérez-Peña, 2014). Other colleges and universities provide on-site, self-instituted courses that prepare international students for the

rigors of the U.S. university classrooms. Courses in writing and vocabulary have become vital for the international student (Sacramento, 2014). The Institute of International Education stated that in 2008, there were 59,000 students who spent a combined 75,000 weeks in an intensive English program (Open).

International students who are new to the university have little time to learn English before joining the academic ranks in their majors. Understanding the stress from financial sponsors as well as family expectations for international students to enter their field of study quickly, it is surprising and frustrating that more studies have not been done emphasizing the efficiency and efficacy of learning English in an intensified setting.

The Center for Applied Linguistics promoted a research agenda for the field of second language acquisition, published in 1998. Within that document it states, “Individuals and organizations in the field are encouraged to use this document as a vehicle for promoting discussion on how research can help improve practice and encourage policy changes to better serve adult ESL learners” (Ellis, 1998, p. 2). The agenda lists the L2 students as being the top priority for study. Second priority is program design, instructional content and practices. After all, in order to learn to read, to speak, and to write in English, an L2 student must possess vocabulary (Hui-Tzu, 2008).

G. Richard Tucker, Donald Freeman, and Kathleen Bailey, compiled another research priority agenda from an invitational research conference organized in 2001. That document prioritized the selection of topics for further research to include:

Issues that have not been sufficiently researched and have important theoretical and practical value at present; issues in which there is considerable interest among

well-defined groups; issues involving underrepresented learners (or teachers), populations, and geographical regions around the world; and issues with major policy implications (TESOL Quarterly, 2001).

Within the pages of the report, however, there were no projects presented that involved the study of vocabulary acquisition. It is astonishing to find recommendations for assessment of programs, interactions in classrooms, L2 Reading, and teacher learning present in the agenda for research. These are important, however the closest proposal to the priority listing is entitled “L2 Instruction: Time to Teach,” by Patsy Lightbown of Concordia University in Montréal, Québec, Canada. Her research sought to demonstrate that an intensive immersion setting is better than the “drip method” such as typical foreign language study is done in the U.S. (p. 598).

With the lack of specific research towards vocabulary acquisition, I have chosen to study and employ methods that have been demonstrated as successful by previous research in other skill sets in SLA. The hypothesis for this study is that ESL students will acquire vocabulary through methods that have been found useful in the skill area of reading combined with multi-media activities, and in so doing, will develop a long-term memory, satisfying the definition of ‘acquisition.’ The research done for this paper is a continuation of the beginning of important research for TESOL methods in vocabulary acquisition.

### **Literature Review**

“The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew and act anew” (Lincoln, 1862). Abraham Lincoln had a valid point: what has come before

is a good lesson, but not sufficient for what we have now. We must learn from the past, but we must also invent our future. For this paper, I will first turn to studies that have examined the methods of teaching L2 vocabulary, then to those that have studied methods for teaching L2 reading. In this review I will also look at the introduction of computers in language acquisition as well as Project-Based learning (PBL) and how effective they are for vocabulary acquisition. These studies should provide information that tie the mastery of L2 reading, technology, and the precepts of PBL to vocabulary acquisition, and perhaps offer a suggestion about where to turn for valuable methodologies for vocabulary acquisition.

### **Vocabulary Acquisition**

First, I would like to examine the pertinent studies that were about vocabulary acquisition in its own right. The 1960s saw the confluence of psychology, linguistics and language teaching. This new development is what we now know as the discipline of Second Language Acquisition (SLA) (Cook, 2002). It was Vivian Cook's belief that "the starting point for SLA research is that L2 learners are not, and can never be, monolingual native speakers – by definition" (p. 3). She admitted that the category of vocabulary acquisition has proved to be a very difficult realm to study.

The majority of L2 vocabulary learning is through receptive modes. Students sit in a classroom and instructors might provide a definition for a word or use the word in a sentence, but will typically not ask the students to produce the word themselves. Receptive vocabulary is that which a person understands when the words are heard or read. Productive vocabulary is, on the other hand, vocabulary that comes from the person, from the learner. Vocabulary may be acquired via two methods: direct, and indirect or incidental. A direct method could involve an instructor providing a student with a list of vocabulary words or expressions and asking the

student to memorize the words. There have been a few studies that have focused on direct instruction of vocabulary. Let's examine these first.

Beaton, Grunberg, & Ellis (1995) examined mnemonic devices. A mnemonic device is a manner of reshaping the concept of the new word and associating it with something known. A student creates a mental image that provides access to the new vocabulary. Ellis & Beaton (1995) provided an example from German: "to remember the German word *Ecke* 'corner,' an English-speaking learner of L2 German (a) recodes the novel word from *Ecke* into the known word form *echo* . . . and (b) creates a mental image of 'an echo in the corner.'" Of course, it must be offered that the quality of the mnemonic device is of importance. Again, Ellis & Beaton (1995) offered an example from Spanish noting that for the Spanish word *vaca* "cow," it is better to think of a cow vacuuming the carpet rather than a cow on vacation. It is simply more memorable. Ellis & Beaton's study demonstrated that students who used appropriate mnemonic devices scored much higher in vocabulary tests over students who had been asked to memorize a list of words. The mnemonic method was determined to be better for L2 vocabulary than rote repetition when receptive vocabulary learning was measured, but that rote repetition was superior when productive vocabulary learning was measured.

Vocabulary is more than a list of single words. Words can be combined with others, or have affixes that must be learned. Bauer & Nation (1993) and Nation (1994) examined morphological and syntactic analysis. Word family instruction was important, they said, for the systematic learning of receptive vocabulary. Students should be lead to learn the different use of prefixes and affixes, inflectional affixes and derivational affixes. Vocabulary size, the amount of vocabulary that has been acquired, became important to insure that students were prepared for academic texts. Therefore, direct learning was not enough.

It is Nation & Waring (1997), however who determined that direct vocabulary instruction was not enough to prepare L2 learners for the classroom where a vocabulary of 3,000 to 5,000 word families was needed. L2 learners, it was decided, must be able to learn more than just a singular form of vocabulary. Researchers have agreed that learning vocabulary, words in all their forms and in any context, is vital to student success. The manner of instruction, however, is still unclear.

### **Reading as a means to learn vocabulary**

While the researchers listed above concentrated on the size of vocabulary acquisition, others were concentrating on how exactly reading contributed to the acquisition of the English language. These studies determined that L2 reading proficiency is a means to incidental vocabulary learning, and that the familiarity of the reading topic was not a factor. (Craik & Lockhart, 1972; Craik & Tulving, 1975; Ellis, 1994; Hulstij, Hollander, & Greidanus, 1996; Laufer & Hulstij, 2001; Lockhart & Craik, 1990). Reading, then, is a means to an end, but the context is only there to provide context for 'a' meaning.

Reading is a perfect mode in which a student can form hypotheses about the English language and to test those hypotheses over and over. Stanovich and Cunningham (1992) saw that the difference between a low vocabulary size and a high vocabulary size is the amount of reading a student has done. Print is eternal (p. 54). Jensen (1980) disagreed by stating, "the crucial variable in vocabulary size is not exposure per se, but conceptual need and inference of meaning from context, which are forms of education" (p. 146 – 147). While reading provides a manner in which vocabulary may be learned incidentally, Jensen spoke to the fact that vocabulary is more than being able to figure out a possible meaning in a particular context.

Indirect, or incidental methods are ones where students are given printed materials and are asked to use what they know to learn vocabulary. This can involve context clues or skimming for general meaning. A strong factor, however, is the addition of more resources to the L2 learner. More connections made target lexical items available because once content words are recognized, schematic activation happens, supporting subsequent lexical inferencing that is considered necessary in the learning of new vocabulary.

Stuart Webb (2005) describes the mid-1980s – 2001 as a time of contention between those who researched receptive vocabulary and those who researched productive vocabulary. Jenkins, Stein, & Wysocki (1984); Nagy, Anderson & Herman (1987); Nagy & Herman (1987); Nagy, Herman & Anderson, (1985) stipulated that the majority of vocabulary was gained receptively through reading. Receptive vocabulary is, of course, easier for L2 students to acquire because it does not involve the student producing the vocabulary in context on their own. This differentiation is one made in all L2 skills.

Pulido (2003), Rapaport (2004), Webb (2005), and others have determined that the more L2 students read, the better they become at determining the meaning of vocabulary in context. The findings stipulated that even lower-level students can determine word meaning by being exposed to the same words many times in a setting.

Once again, extensive reading is offered as a possible solution, based on first language studies of vocabulary growth (Coady, 1997). Extensive reading can create independent vocabulary learners of L2 students (Brown, 2009; Day & Branford, 1998; Krashen, 1993; Nation, 1990). I think the word ‘can’ is of importance here. For some students, the acquisition of meaning from context reading is possible. Other students find this method of vocabulary acquisition difficult. This kind of vocabulary acquisition is, after all, more than just rote

knowledge of a word's spelling. This knowledge involves a deeper learning that includes meaning.

Although much vocabulary is learned from context during reading, word meanings do not come from mere exposure, rather, as Sternberg argued, "simply reading a lot does not guarantee a high quality vocabulary. What seems to be critical is not sheer amount of experience but rather what one has been able to learn from and do with that experience. According to this view, then, individual differences in knowledge acquisition has priority over individual differences in actual knowledge" (1985, p. 307). Diana Pulido concluded that there is a consistent pattern in the impact of initial L2 reading and sight vocabulary richness; there is not, however, a consistency where the topic of familiarity of topic arises (2003, p. 268).

Even though studies by researchers in the early 1990s continued to find a positive relationship between vocabulary acquisition and reading (Haynes, 1989; Haynes & Baker, 1993; Horst, Cobb & Meara, 1998), these studies lacked the ability to generalize how sight words affected outcomes. Parry (1997) determined that learners were more likely to skip over unknown words when the reading context was comprehensible without that knowledge. This skipping of words is what Diakidoy (1993) researched. His outcome states that the conceptualization of context is limited because of what the learner is mentally envisioning due to the combination of what is being read and what is already known. He said that there is a need to "broaden" the notion of context by including prior knowledge to what is printed in the text (p. 84 – 85).

Wondering what might happen if images were combined with vocabulary, researchers such as Kuhlman (1960) and Stewart (1965) weighed the possibilities of the combination of imagery with verbal materials and noticed an improvement in predictability in performance in learning situations. Common sense dictates now what the research by Ernest and Paivio (1969)

supplied: “Imagery does indeed have a functional significance for learning and memory” (p. 182).

If vocabulary is being accessed through reading, are learners correctly grasping the meaning of unknown words during a reading exercise and shifting it to long-term memory? Waring & Takaki (2003) evaluated this process. Knight (1994); Laufer (2000); Paribakht & Wesche (1997) upheld Waring & Takaki when they compared reading alone with reading plus a supplementary word-focused activity. Hulstijn (1992), Hulstij, Hollander, & Greidanus (1996); and Wantanbe (1997) had already examined glossing of words as a way of direct vocabulary instruction. Glossing in the margins of texts gave students an advantage because they were able to determine a meaning directly rather than having to use contextual clues, which can be ambiguous.

Laufer (2000) found that glossing texts with computer technology increased student’s comprehension and learning of vocabulary meaning in context. Glossing vocabulary and adding visuals was making a difference for students in vocabulary acquisition, and the mind’s ability to recall it. Al-Seghayer (2001), in studying the difference between static and video picture representation for vocabulary acquisition, determined that students had a deeper recall of vocabulary with the video. Laufer’s 2003 study took this one step further by studying the reading plus activity in a foreign language context. Rott (1999) had already determined this deeper learning in her studies.

A pedagogically sound vocabulary instruction should involve ESL/EFL learners in two circumstances: reading for meaning under an enhanced condition, to ensure a basic lexicon, as well as under a normal condition, to advance beyond the basic requirement” (p. 593).

When left on their own, learners often consult either an electronic or paper dictionary. This is considered a benefit to students in research conducted by Knight (1994); Laufer (2000); and Luppescu & Day (1993). Looking up unfamiliar words during reading provided students with more word retention on both immediate and delayed tests at both the receptive and productive levels than when words were not looked up.

### **Computer Assisted Language Learning as a means to learn vocabulary**

It is not only electronic dictionaries that are available to students. With the international students come digital media. Students of the Net Generation (Carlson, 2005) are well versed in computers. It makes sense to use their knowledge of computers to create a positive atmosphere for the L2 learner's vocabulary acquisition. Research into using computers in the field of SLA began in earnest in the mid- to late-1990s (Levy, 1997; Muyskens, 1997; Pennington, 1996; Warschauer, 1996; Warschauer & Healey, 1998). Their belief that technology holds potential for language learning lead to the emergence of Computer Assisted Language Learning, or CALL.

Carol Chapelle (2009) has studied the relationship between SLA and Computer Assisted Language Learning. Comprehension and acquisition are both psycholinguistic processes that are required for the 'processability theory'. Learners gather the input that must be supplemented by exercises for the students to notice specific aspects of the input (Gass, 1997). Chapelle stipulates that the skill acquisition theory takes principles from cognitive psychology and applies it to targeted areas of SLA. Through opportunities to practice, language development proceeds and becomes more automatic. Computers and other electronic devices are optimal for providing this practice as they can include consistent input, interaction, production, and feedback (DeKeyser, 2007).

The original interest for computers being considered for L2 vocabulary acquisition is due to their ability to do so many tasks, making them more than just digital readers. Computers have the ability, when properly programmed, to present materials in multiple modalities. An early concern for computer use for presenting multiple modalities such as text, audio, still pictures, and videos emerged. Chun & Plass (1996), Davis, N. & Lyman-Hager (1997); Lyman-Hager, Davis, Burnett, & Chennault (1993), and Martinez-Lage (1997) picked up the concept of glossing individual vocabulary words and linking them via annotations embedded in the materials the students are reading. Their research was sparked by the concept of glossing words in a variety of digital modes including printed text (Hulstijn, 1992), graphics, video and sound, and how this might impact vocabulary acquisition and retention.

Plass and Jones (2005) separated the cognitive approach for SLA into three components. The first was input – what does the learner need. Computer technology can present programs that have a multiplicity of interventions for students, based on what they did. Teachers have the same means. When students' work requires revision, a teacher can highlight the portions that need attention (p. 470). These strategies, shared by the computer and the teacher help the learner understand the mistakes and to focus on the important reasons for revision. It is the feedback that was also found important in the 2007 DeKeyser study above. The second stage of the cognitive approach asked for “information links that provide simplification, elaboration, clarification, definitional support, or redundancy” (p. 469). Connection to previous learning is important. Computer games for review or teacher scaffolding are both valuable inputs for students. The third stage was comprehensible output. If there is no need to learn a second language, then the learning will not necessarily take place (p. 475). Supporting self-correction is important, and in a digital environment, there are many options for a student to have this support.

Chun and Plass (1996) reconnected the concept of multiple exposures through multiple modalities for vocabulary acquisition. They found that associating lexical items with multiple modalities built a richer recall and likelihood of retention. Psychology had been able to determine that words are coded dually with two means of exposure, and Chun and Plass took this to mean that learning would be greater due to this dual coding process. Two types of recall cues would be stored in the memory.

Currently there are two theories that are believed to explain the importance of multimedia presentations in a language-learning environment. Mayer (1997) proposed the generative theory of multi-media learning. He relied on the generative theory of Wittrock (1974 a, b) and also on Paivio's (1971) dual-coding theory. The generative theory builds on the supposition that learners have two separate verbal systems (L1 and L2) but only one visual system, held in common. So, when there are translations of words taking place verbally and visual representations are called upon, the visual would not only link the two verbal systems, but would also have the added effect of improving learning (Paivio & Desrochers, 1980).

Paivio's dual-coding theory (1971) is grounded on the psycholinguistic assumption that memory and cognition are served by two distinct systems. One system specializes in verbal information and the other in non-verbal information such as pictures or objects (Paivio and Begg, 1981). With the presupposition that memory and cognition are served by the verbal and nonverbal systems each sensory modality would be affected by both systems. For instance, the printed word and pictures or objects are combined to form a memory in the visual cortex. Refer to Table 1 below.

In a 1990 study, Oxford and Crookall expand upon the work done by Paivio and Begg. Oxford and Crookall made the claim that most learners have the ability to make associations

between new informational concepts that are already in long-term memory based on visual images. The images make the learning more efficient. The study concluded that visual memory

Sensory Modality	Symbolic Systems	
	Verbal	Nonverbal
Visual	Printed words	Picture or objects
Auditory	Speech sounds	Environmental sounds
Tactual	Braille	Objects that can be felt
Kinesthetic	Motor feedback from writing	Motor feedback from exploration of objects

Table 1. Two Systems That Serve Memory, from Paivio & Begg (1981, p. 68)

helps learners chunk information easier than if there were only words. As a final conclusion, the study mentioned that the image <+> verbal connection utilizes more of the brain, causing greater cognitive power (p. 17). While psychologists had been suggesting that learners might have a greater memory when learning was done with at least two physical modalities, this concept was new to language learning.

When students have been given vocabulary lists to learn, the pattern has been to memorize the list, write the words a required amount of times, and/or to create a sentence that uses the vocabulary word in a correct context. This is considered time consuming, but somewhat effortless for the student. Damasio, H., Grabowski, Tranel, Hichwa, & Damasio, A. R., researchers in the field of psycholinguistics, explained that in order for information to move from short-term memory to long-term memory, a person must make a conscious effort by either giving the vocabulary meaning, by making an association to previously known information, or simply by being motivated and interested (1996).

As computers became more common in classrooms, a system of regular lectures that often included a slide presentation became widespread. Criticism and dissatisfaction was emerging, however, with the use of presentation slides. The discussion centered on how slides

redirect attention (Strauss, 2011, p. 151). Instructors over-fill slides with charts, tables and text, and that leaves little time for material absorption by the students (DuFrene and Lehman, 2004; Few 2004). Mayer (2001) suggested using slides that are solely visual which could then be accompanied by instructor narration. This will accomplish the dual coding, using both the aural network and the visual network of the learning brain. An important point to remember about the human's working memory is that "people can only process five to nine chunks of information simultaneously; the rest is forgotten" (Chase and Simon, 1973; Sweller 1994).

So far, there is no perfect answer. Direct vocabulary has its disadvantages when relied upon as a sole mode of L2 vocabulary instruction. Lists of words for memorization do not make meaningful memory connections. Indirect methods such as reading gives students the meaning of a word in a particular context, but the students sometimes skip over the unknown word(s) and guess at the meaning. If left unchecked, this can lead to faulty learning. CALL, while beneficial in building vocabulary, is also not useful by itself for L2 vocabulary instruction. Students have become confused by over-full slides and can become lost in an island of vocabulary games on line. There must be something more that can be done in the acquisition of L2 vocabulary.

### **Project-Based Learning as a means to learn vocabulary**

Another option is Project-Based Learning. The Buck Institute for Education is a resource for Project-Based Learning (henceforth PBL) for the 21<sup>st</sup> century, according to the website (Buck, 2014). Below, in Table 2, I will quote their seven components to PBL. The concept of PBL has been around for centuries. Confucius, Aristotle, John Dewey, Jean Piaget, and Maria Montessori were all proponents of students experiencing education rather than being passive (Boss). It was in 1995 that Barr and Tagg suggested that the spotlight had moved from teacher to student. They called the change "Student-centered teaching," or the "learning paradigm" (p. 13).

Their point was that now the classroom goal is to create learning, and that this learning requires the cooperation of the student.

1	In-depth Inquiry	Students are engaged in a rigorous, extended process of asking questions, using resources, and developing answers.
2	Driving Questions	Project work is focused by an open-ended question that students understand and find intriguing, which captures their task or frames their exploration.
3	Need to Know	Students see the need to gain knowledge, understand concepts, and apply skills in order to answer the Driving Question and create project products, beginning with an Entry Event that generates interest and curiosity.
4	Voice and Choice	Students are allowed to make some choices about the products to be created, how they work, and how they use their time, guided by the teacher and depending on age level and PBL experience
5	Revision and Reflection	The project includes processes for students to use feedback to consider additions and changes that lead to high-quality products, and think about what and how they are learning.
6	Public audience	Students present their work to other people, beyond their classmates and teacher.
7	21 <sup>st</sup> century competencies	Students build competencies valuable for today's work.

Table 2. The Buck Institute's conceptualization of PBL

With a project-based learning atmosphere, vocabulary is acquired through a meaningful activity. As the student sets out to communicate with others, the demands for authentic language use require students to negotiate meaning (Newton, 1993). Pre-teaching of vocabulary is one way in which students can have a chance to learn before an activity that will enhance learning through review and practice later (Skehan, 1996). Alan Baddeley (1997) emphasizes the need for the continual encountering of newly learned words. In a well-planned curriculum, students are

provided many ways in which they can practice with the new vocabulary. Whether it is through revision tests, group work, or independent recording and revision, learning is enhanced through practice (Newton, p. 30). Table 3 below, shows other interactive modes of enhancing vocabulary instruction.

Options for targeting unfamiliar vocabulary in communication tasks		
Pre-task options	1.	Predicting
	2.	Cooperative dictionary search
	3.	Words and definitions
In-task options	4.	Glossary
	5.	Interactive glossary
	6.	Negotiation
Post-task options	7.	Vocabulary logs
Table 3. PBL vocabulary acquisition suggestions (from Newton, 2001, p. 31)		

The teacher still has a role in BPL. While no longer lecturing for the class period, the teacher is now available to help groups of students, aid in the negotiation of vocabulary (Lynch, 1997; Seedhouse, 1997), observe for stalled performance or student trouble. A post-task discussion can detail the positive features of the class time. The most important task, however, is to provide tasks “where learners are given opportunities to meet and explore new vocabulary without direct teacher assistance, and to use this vocabulary to meet meaningful task goals” (Newton, 1993, p. 30).

Project-Based Learning, with its focus on the student-centered learning, appears to combine direct and indirect learning. Having a list of vocabulary to pre-learn is direct and the assignments are the indirect learning. Is it possible though, to increase learning, and by learning I mean long-term memory, by adding more modalities to the BPL? That is the purpose of this particular study. This study investigates whether a multi-modal, student-centered, project-based

learning experience will provide not only for long-term memory, but also for a preferred manner of instruction, based on student evaluations.

### **Method**

Several considerations were made in the construction of this study. Participants were needed. Two groups of equal ability were required. To control for language ability, only pre-beginning speakers were asked to participate. After two groups were selected, materials were created that would involve each group of students for four, 50 minute classes plus some work outside of class. The activities for the two classes would alternate in order to discern a differentiation in instruction methods. Surveys to determine student self-gauged learning and preference of material were also created and administered. Once the four class periods had passed, the evaluation of student learning was tabulated.

### **Participants**

Two classes of pre-beginning L2 learners at the university level were chosen for participation. One class contained eight students. Among them were two Arabic-speaking women, five Arabic-speaking men, and one Chinese-speaking man. One student was repeating the class from the previous session. The second class contained 11 students, all Arabic-speaking. There were five women and six men. One of the men began the session in the beginning level but requested to move down, stating he did not understand in the beginning level. In the second class, there were three repeating students: 1 woman and 2 men.

Since pre-beginning students come to the university with various educational histories, our university requires examination in four categories: writing, grammar, reading, and listening/speaking. All students are listed in Table 4, but for the *non-repeating students only*, I took the departmental placement scores to find an average ability score for each class. The

results are provided in Table 4 below. I did not have access to the placement scores for the repeating students. These scores would have made little difference since the students had already been through the class one time before. The repeating students are represented on the chart with “F @.”

Each class, when looked upon as a unit, has a standard deviation that is the same: 0.01. They are assumed for this study to be two equally proficient classes. The ability scores were determined by considering that the university’s intensive English unit provides a total of seven levels, pre-beginning through level 6. For instance, if a student tested at level 1 in grammar, the numerical score of ‘one’ was divided by ‘seven’, the number of levels. This was done to produce the ability score of 0.14. [ $1/7=0.14$ ]. Each student’s ability scores were combined individually and divided by four, the number of skills tested, to determine an overall ability score. This was done to see if one class had any significant advantage over the other that would possibly affect results of the study. The last student on the chart tested at “level F” in two skill areas and “level 1” in two skill areas. Those four scores were combined and divided by 4 to create a learning level of 0.07, or pre-beginning.

The hypotheses of this study are that the classwork that is most interactive and provides the most sensory input will be the work that benefits the students the most, and potentially will increase the likelihood of moving the vocabulary into long-term memory. This will be assessed by the quizzes, one immediate and one given at one week post-exercises. The expectation is also that the students, in general, will have liked the class that benefitted them the most. It is thought that when students enjoy what they are doing that they will be more involved with the material and possibly learn more.

Placement	Writing	Grammar	Reading	List & Speak	Avg Scores
F	0	0	0	0	0
F	0	0	0	0.14	0.04
F	0	0	0.14	0	0.04
F	0	0.1	0	0.57	0.18
F	0	0	0.29	0.14	0.11
FⓈ	-	-	-	-	-
F	0	0.14	0	0	0.04
F	0	0.29	0	0	0.07
<i>avg</i>					<b>0.07</b>
<i>stdev</i>					<b>0.01</b>
Class A					
Placement	Writing	Grammar	Reading	List & Speak	Avg Scores
FⓈ	-	-	-	-	-
F	0	0.14	0	0	0.04
F	0	0.00	0	0	0.00
FⓈ	-	-	-	-	-
F	0	0.14	0	0	0.04
FⓈ	-	-	-	-	-
F	0	0.00	0.14	0	0.04
1 TO F	0.14	0.29	0.29	0	0.18
F	0	0.29	0	0.14	0.11
F	0	0.29	0	0.57	0.21
F	0	0.14	0.14	0	0.07
<i>avg</i>					<b>0.08</b>
<i>stdev</i>					<b>0.01</b>
Class B					
Table 4. Averages and Standard Deviations for Class A and Class B					

**Materials and Tasks**

The materials for this study were divided into two categories: one that involved working alone and one where students cooperated by working together. Since both groups of students were back-to-back in instruction, Class A was chosen to receive the partnered materials the

on Day 1 and Class B would receive their partnered assignment the Day 3. The routine would be reversed for the opposite days with Class A receiving the individual activity on day 3 and Class B receiving the individual activity on Day 1.

**Class A, Day 1 (Appendix A)** This was the interactive, multi-sensory class. The night before class they received three things via campus e-mail:

1. a story called “My Father” in which there were nouns underlined. They were told to read the story and answer the five questions at the end to show comprehension of some of the nouns. (Appendix B)
2. a copy of the Police Report which would be used in class the next day (Appendix C)
3. a recording of this researcher reading the Police Report aloud to aid in their phonological memory of the vocabulary used on the sheet.

During class, they received a copy of the Police Report and a copy of a Missing Child Report (Appendix D) that was taken from the Internet the night before class. The students were paired in pre-determined learning partner groups. There was one student remaining, the repeating student, so I worked with him. Instructions were for one of each pair to put the Missing Child Report under their desk and for the other partner to put the Police Report under the desk. Then, the students were told to pretend they were either the family member of the missing child (the person who had the internet Missing Child Report) or a detective (the one with the Police Report). Instructions continued by the researcher showing the Police Report and indicating where the ‘detective’ was to write their name and then they were asked to begin asking the questions. The ‘family member’ was to provide the answers orally while the ‘detective’ was to write the answers down in the appropriate space. Some questions could not be answered due to lack of information on the Missing Child Report. As a class we

	Class A	Modalities	Class B
<b>Pre-Day 1</b>	Reading	see	Reading
	Police Report Form	see	Police Report Form
	Audio of Police Report Form	hear	
<b>Day 1</b>	Instructions	hear	Instructions
	Police Report Form	see	Police Report Form
	Unique Missing Child Report Form	see	Identical Missing Child Article
	Paired Work	<hear/see	Individual Work
	Survey of learning		Survey of learning
<b>Day 2</b>	Reading, "My Father"	hear/see	Reading, "My Father"
	Discussions about contents and prior knowledge	hear	Discussions about contents and prior knowledge
<b>Pre-Day 3</b>	E-mail asking students to bring laptop computers	see	E-mail asking students to bring fully-charged cell phones
<b>Day 3</b>	List of verbs	see	List of verbs
	Instructions	hear	Instructions
	Survey of learning	touch<	4x6 blank cards, markers
	Individual work	see/hear/write<	partner work with camera and cards
	presentation software		Survey of learning
<b>Day 4</b>	Announced quiz	see	Announced quiz
	Survey of preference		Survey of preference
<b>8 days later</b>	Unannounced quiz	see	Unannounced quiz

**Chart 1. Daily plans for research unit**

discussed the use of ‘n/a’ as an answer when there was no other answer available. After 15 minutes, those papers were collected and the partners exchanged positions. After another 15 minutes, the second set of papers was collected and a survey was provided. A copy of the survey is also included in appendix. Questions asked were how much the student felt they learned during the exercise (including the materials from the previous night), what could have been better about the lesson, and would they like to do a similar activity at a later date. Some class members did not return the survey. It is also assumed that some did not fully understand the questions (Appendix G).

**Class B, Day 1** This class also received the reading entitled “My Father” by campus e-mail the night before class and given the same instructions. They received the Police Report form but did not have an audio recording of it. (Lesson plans are in Appendix E.) At the beginning of class, each student received a copy of the Police Report and identical copies of a reading that resembled a ‘news flash’ reporting (Appendix F). Instructions were given that each student was to work alone to fill out the form using the information that was available. The “n/a” was also covered as not all questions had an answer provided in this class, either. This class had 25 minutes to fill out the Police Report before it was collected. An identical survey was given to the class. Some class members did not return the survey. The same assumption about clarity of the questions is indicated for this class.

**Day 2, Both Classes** The next day’s classes were done in near-identical fashion. The “My Father” reading was shared with learning partners with meaning being negotiated and answers clarified. As an entire class we then talked about the contents of the story, discussed medical treatment in their home countries, and if their fathers were living or dead. I then orally asked each question at the end of the reading and volunteer students wrote the answers on the chalkboard. The researcher verified that everything was correct and then everyone was asked to verify that they had the same words, spelled the same way, and in the same order. Sentence structure was orally stressed.

**Day 3, Class A (Appendix H)** The class was given no pre-assignment, but they were sent an e-mail asking them to bring their laptop computer to class with them the next day. They were told that bringing the laptop would create a better learning environment for them than simply relying upon their smart phone.

At the beginning of class each student was given an identical list of 18 verbs (Appendix I). In addition to the verbs was a photo of the researcher's children playing outside and a sentence using one of the verbs. The students were instructed by written directions on the chalkboard to choose 10 of the verbs. With the ten verbs, they were to create a 10-slide presentation. Each slide was to contain one verb used in a grammatically correct simple present sentence and pictures chosen from any source that would help to show understanding of the meaning for each sentence. I went from student to student answering any questions and offering encouragement when a student had done well. If a student was having difficulty I asked them to check first with their learning partner, and then to ask me if they were still unsure. The student was to send the finished presentation to me via campus e-mail by the negotiated time of 7:30 p.m. the same day. With ten minutes left in class the students were told to put their materials away and they were given a survey identical to day 1's survey. This time the researcher collected a survey from each student. As they left they were reminded to send their presentation on time.

**Day 3, Class B** This class was not given any prior assignment but they were sent a message telling them to bring their smart phones, fully charged. This message was sent through campus e-mail.

At the beginning of class, each student received the sheet of verbs, the same as Class A, except this time the photo was of the researcher doing an action and holding a card with a single verb, the action that was being done. They were told to choose any ten of the verbs (Appendix J). As they were talking with their learning partners, the researcher went around the room giving each student ten 4 x 6 blank note cards. Six large permanent black markers were also distributed amongst the class. Once everyone had their blank cards and access to a marker, they were told to write a single verb, one to a card. If mistakes were made, they were given additional cards.

When all cards had one verb listed for each student, I collected the markers. The students were then asked to look at the verb sheet once again and the photo was discussed. In this class, the photo was in color. I emphasized that with each card, the student was to ‘act out’ the meaning of the verb and to include the card in a photo, as was done in the picture on their sheet. Either the student or a friend was to then snap a picture of the student. This class was told that the ten photos were to be sent via campus e-mail to me by the negotiated time of 7:30 p.m. Before questions were answered and the students told they could leave the classroom, as it was not conducive to movement, they were given a survey identical to their Day 1. This time the researcher tried to gather each survey before the students left. As I left, students were seen in the outer area of the building helping each other take photos with the verb cards.

For both classes, when the time arrived for the assignments to have been turned in, e-mails were sent to those who had not already turned in work. This prompted all but one student to send the work. On Day 4, that one student showed me that the assignment had been sent two hours before deadline, and it was agreed that it had indeed arrived during the night and with the visual on the phone, it would not be considered late.

**Day 4, Class A and Class B** This class day was to be spent taking a quiz that covered the set of nouns from day 1 and the set of verbs from day 3 (Appendix K). The students knew this quiz would occur. The quiz represented the nouns and verbs nearly equally, with one more usage of a noun than a verb. The students were given all the time they needed, but were to take the quiz with no external help, including peers or electronics. When the student population was completely done with the quiz, a third survey was explained. The researcher gave each student a small slip of colored paper. They were instructed to write either an “M” for “Monday” or an “R” for “Thursday.” The “R” is what the university uses for “Thursday” so this was not new to the

students. There was confusion in the instructions, so the researcher wrote the letters “M” and “R” on the board. Then the researcher held up a copy of the work for Monday and said, “If you liked this work more than Thursday’s work, mark an “M.” Then the researcher held up Thursday’s work and said, “If you liked this work better than Monday’s work, mark an “R.” The researcher then set each day’s work under the appropriate letter on the chalkboard. Students seemed to understand with this explanation. Each student left their slip of paper on the table as they left at the end of class. One week later, the students were given a surprise quiz covering the materials that the first quiz did (Appendix L). One question was removed post-class due to a verb having a different meaning than was studied in class. All surveys were tabulated and recorded, and are available in Appendix M 1 and 2; Appendix N 1 and 2. Class A was somewhat apprehensive on Day 1. The vocabulary on the Police Report form, even though they had it a night before class, caused them problems during class. I would have liked for them to prepare more before coming to class. Class B had taken the time to prepare themselves for the new vocabulary and did better during class, even though they worked separately. Class A took a great deal of my energy and attention, which was unfortunate as I was partnered with a single student who had not prepared.

The students were more relaxed on Day 2. They were more at ease with the vocabulary and were able to use the nouns to answer questions about the reading and talk about their own fathers. Class B was more adept at this, however. I had to work hard for Class A to be totally responsive and not just a pair of students doing all the work.

Students in Class A on Day 3 were excited to show me their computers and the different keyboards that some had. Some had dual markings; some had only English and some only Arabic. They had experience making presentations, having completed one the week before in their reading class. The students were excited to hear they could choose from the list and only

had to do ten verbs. Class B was perplexed at why they needed their smart phones *for* class. It took a bit for them to settle down so they could be given the instructions and get to work. There was a lot of talking going on, in English. The discussion also focused on whether students *had* to photograph themselves or if there was an alternative. I expressed that there were options, and gave suggestions that included photographing a spouse or friend, or using the Internet to gather pictures that fit the verbs of their choice. Both class A and B wanted to negotiate a due time that was later than I had listed on the assignment. A later time was granted.

### **Results and Discussion**

Before I present the results of this four-day instructional period, I would like to review what I was hoping to find. It was my expectation that students would have a better retention of the vocabulary from the day on which they experienced the multi-modal, student-centered, project-based learning atmosphere. I was also anticipating that students would enjoy that day the most. In order to demonstrate these expectations, I will report the quiz scores and the survey responses for both classes.

#### **Quiz Results**

Table 5 shows the quiz scores from Class A and Class B from the fourth day. The table details scores for each student. Class A indicates that a student was not included in the figures. This student is registered but was not in attendance during the trials. Class A, with the interactive, multi-sensory class assignment did not score as well as the researcher had hoped. In fact, the score is lower overall for the nouns than for the verbs. Their composite scores are also lower than Class B, who had the individual reading assignment. The scores for Class B are nearly identical between the nouns and verbs on the quiz.

Class A averaged 81% for the quiz with an average of 78% correct for the noun section of the quiz. The verb average for Class A is 83%. The standard deviation for the entire quiz for Class A is 0.14. Class B, Day 1 averaged 87%. The noun section of the quiz for the class is an 87% as well, with an 86% for the verbs. There is a standard deviation of 0.20 within the class on quiz scores. Between the two classes, there is a standard deviation of 0.04. Neither class met the expectation that the more interactive and multi-sensory the activity was, the higher the immediate learning would be, evidenced by quiz scores. Class B, however, was nearly even in both nouns and verbs. While their active lesson involved the verbs, the reading assignment they did on Day 1 must have been more powerful for them than the partner-learning was for Class A. I believe they had also done more preparation work. It was evident by the fact that most brought the reading to class, completed.

Table 6 shows the results per student for the surprise quiz that was given one week post-study. The table shows that Class A's scores improved over the same material at one week post-study. The second quiz has an average of 87% for the class on the entire quiz. This time, however, there is a gain of 9% in the noun score and a gain of 3% for the verbs. The noun activity was the active one for this class, so it is a good sign of possible long-term memory recall for the class. As was indicated in the literature review, initial assessments are often lower scores than later assessments. Class B also had a gain in percentage correct in quiz 2 over quiz 1. There was an overall 6% raise in their score. Their active class was the verb study, and there was a 6% increase in that score. However, there was also a 6% increase in the noun score, making Class B once again, equally versed in the verbs and nouns for this study.

Quiz Score	Nouns Corr.	Verbs Corr.	Quiz Score	Nouns Corr.	Verbs Corr.
Class A			Class B		
25 PTS	13	12	25 PTS	13	12
	Interactive	Ind. Reading		Ind. Reading	Interactive
0	Student not included		0.72	0.77	0.67
0.68	0.62	0.75	0.76	0.77	0.75
0.72	0.69	0.75	0.80	0.77	0.83
0.76	0.85	0.67	0.80	0.85	0.75
0.84	0.92	0.75	0.84	0.77	0.92
0.84	0.69	1.00	0.84	0.92	0.75
0.84	0.77	0.92	0.92	0.92	0.92
0.88	0.92	0.83	0.92	0.92	0.92
0.88	0.77	1.00	0.96	0.92	1.00
<i>avg.</i>	0.81	0.78	0.83	0.96	0.92
<i>stdev.</i>	0.14	0.11	0.18	1.00	1.00
			<i>avg.</i>	0.87	0.87
			<i>stdev.</i>	0.20	0.16
			<i>stdev.</i>	0.04	

Table 5. Initial assessment quiz scores

This can mean that the material is stored in long-term memory for the students’ use later. The second quiz has a 0.05 standard deviation between the classes.

After which presentation manner do quiz scores reflect higher “immediate” short-term memory gains of vocabulary? The answer to this question is that it varied between the two classes. For Class A, there was a slight difference in the first quiz scores, favoring the verbs. For Class A, the verb work was individual, but used a computer. For Class B, there was no difference indicated on presentation manner. This answer is therefore unclear.

Quiz Score	Nouns Corr.	Verbs Corr.	Quiz Score	Nouns Corr.	Verbs Corr.
Class A			Class B		
20 PTS	10	9	20 PTS	10	9
	Interactive	Ind. Reading		Ind. Reading	Interactive
<del>0.00</del>	Student not included		1.00	1.0	1.0
0.68	0.60	0.78	0.79	0.8	0.78
0.63	0.80	0.44	0.79	0.9	0.67
0.79	0.80	0.89	0.84	0.9	0.78
0.95	0.90	0.89	0.95	0.9	1.00
1.00	1.00	1.00	0.84	0.9	0.78
0.84	0.80	1.00	0.84	0.9	0.78
0.89	0.80	0.78	0.95	0.9	1.00
0.89	0.90	0.89	1.00	1.0	1.00
<i>avg.</i>	0.84	0.83	0.95	0.9	1.00
<i>stdev.</i>	0.26	0.28	1.00	1.0	1.00
		<i>avg.</i>	0.90	0.9	0.9
		<i>stdev.</i>	0.15	0.14	0.24
		<i>stdev.</i>	0.05		

Table6. Post study quiz scores by component

After which presentation method do quiz scores reflect higher “delayed” long-term memory gains of vocabulary? This answer affirms that the interactive, multi-sensory mode of learning was possibly more facilitative for long-term memory for Class A. While the quiz scores are identical between the nouns and verbs, there was a higher increase in correct answers for the nouns on the quiz. For Class B, the quiz meant to indicate long-term memory does not show a favor towards nouns or verbs. Both parts of speech increased in percent correct, but the scores remain equal. What can be said for Class B is that more students scored 100% in the verb section of the second quiz than in the first quiz. There is the second situation, though, that those who scored lower, scored a good deal lower than they had the first time. The noun section of the second quiz was uniform in the raising of scores the second time around.

## Survey Results

I would now like to describe the student attitude towards the activities. Student reaction varied between classes. Some were content to do an assignment while others showed both discontent and dismay. The discontent and dismay will be described as I cover the results from the surveys. There are four forms in the Appendix that show composite answers, two for each class (Appendices M and N). The second two questions relate to the actual materials presented in class and to the outcomes of the assessments, so they will be discussed first. For Question 1 each survey had a scale from 0 – 5 with the “0” being the most positive of choices and the “5” being the least positive of choices. The students were given a visual scale using faces that are used in medical settings when language is not available. There were also words provided to describe my intent for each number. For instance, for the “happiest” of faces, I had the comment, “Today I learned a lot.” Based on some answers, the face strip seems to have been a slight distraction for some students. One student in Class A indicated that they chose face number 1 because “they did not feel well.” This may have been one shortcoming of this study. The first survey indicates with its lower score (1.6) that as a whole they felt they learned more with Day 1’s activity than they had with Day 3’s activity. Answers such as “0, too much knowledge,” sounds like a confused answer. A “0” should indicate that the student felt they learned a lot with the day’s activities. “Too much knowledge” sounds like the student felt overwhelmed with the activity. The last question on the learning survey asked if the activity of the day was one they would like to do again at a later date. Overall, for the students that turned in a survey sheet and who answered, both activities are ones they would like to do again. I take that even though the top half of the survey was confusing to the students that they still liked the two activities; they were just unsure how to answer the first questions.

As for the research preference question on day 4: for Class A the scores do reflect the preference of the students, but not in the way the researcher had expected. Half of the class voted Day 1 as the class they liked more and half said Day 3 was the class they preferred. Since there is an even split and the scores for the second quiz are the same for verbs and nouns (83%), the student answers match the statistics.

The Class B, Day 1 survey results show the same seeming confusion about what the faces mean in correspondence to the written words describing the numbers 0 – 5. Still, the form shows that this particular class rated below both of Class A's daily surveys. Class B, Day 1 states that with an average of 2.33 that the average student felt that they may have learned something and/or they weren't sure they had learned anything. It is obvious from reading the third column that they were unhappy that they had to work alone. Appendix M 1 and M 2 are for this class. The second survey provides a higher satisfaction, or learning, score than Day 1 did. This score is even higher than either of Class A's daily scores, indicating that the students in Class A felt they had learned more than Class A said they did. The scores are not statistically far apart between the classes, however. This class had two participants who were unhappy with having to take photos. Both Class A and Class B had a few students who were unhappy with the negotiated time to e-mail the work. In class, however, they had agreed to the adjusted time.

Research question number 1 for Class B is undetermined since the quiz scores are even on both nouns and verbs. The only relevant change is that more of the students scored a 100% on the verbs during the second quiz than on the first. Perhaps this is indicative that they had invested more of themselves in this class model to the first day and therefore learned more.

There is absolutely no doubt which activity the class liked better when they had the choice to compare the two. The verb activity on Day 3 outshines the Day 1 activity about the

missing child. With the results of this particular survey showing a particularly high interest in the activity, I gathered all of the photos that were done correctly and created a self-published book that was printed at a local drug store. The students in Class B were unhappy with the first attempt, however, as not all of the students were included. While the researcher had sent the entire parcel of photos, there had been an error in the printing. A second attempt was made and that book has now been shared with the class. In the PBL profile, the students were seen having a “voice and choice” as well as experiencing “revision and reflection”

Referring to the list of events in PBL as shown in Table 2, the process was carried out from start to finish on both Day 1 and Day 3, in both Class A and Class B. In addition to the aspects of PBL, other tested methods of learning were included in the process. Visuals in the form of photographs of children, sound, touch, and listening were added to the two different “Driving Questions” the students faced.

### **Conclusion**

While the current study had no outstanding, statistically significant results, the second quiz’s higher scores suggest that the long-term memory recall is present. When L2 learners set out to learn English vocabulary, the expectation is that the class and instructor will provide Best Practice instruction. Many past studies both for vocabulary acquisition and reading skill instruction have been reviewed. To create my own study, I took lessons from those studies and combined them to create a set of four classes, 3 surveys and 2 quizzes to test my hypothesis that students would have a better grasp of vocabulary from the activity that was more multi-modal, student-centered, and BPL. It was also hypothesized that the students would prefer that day as well, as opposed to the day where the lesson utilized fewer modalities for learning. Class A results on their quizzes support the learning hypothesis, but the first two survey results are

quixotic. The comparison survey, however, showed no preference to mode of learning. Class B fully supported my two hypotheses, showing higher vocabulary growth and definite preference for the multi-modal class.

### **Shortcomings and suggestions for further study**

This research is not without problems, however. The research that was conducted for this paper was entirely too limited in scope of both participants and amount of time spent presenting materials in the two specific ways spoken of in this paper. There was an obvious problem with the survey for Day 1 and Day 3, having the faces used in medical settings was not beneficial, and seemed to be confusing to the students. Should any of the survey be used again, the faces should be removed. Attention will be paid to the speed of verbal instruction as well as to the content of instructions. With the students who did not wish to use their phones to capture photos of them, an alternative assignment was made. They were allowed to make a slide presentation using clip art, but otherwise following the same directions as their classmates. This is something that needs to be kept in mind, however. I recommend that PBL continue to be used with the focus of adding more multi-sensory activities into the instruction. Students responded well to this and the research reviewed for this paper stipulated that as a positive effect on vocabulary acquisition.

### **Implications for teaching**

Implications for research such as mine is to help inform language teachers which, if any, tasks have shown to be effective and supportive of vocabulary acquisition by L2 learners (Brown, 1991; Bygate, 2001). This particular study, while small in scope, demonstrates that when students like the task, they are more apt to carry it out and to learn from it. That follow-through is what Project Based Learning has shown to be very effective in promoting learning.

Doughty and Williams (1998) identify that focus on form is a way to enhance vocabulary acquisition, but that the goal of L2 vocabulary tasks must be the grasping of meaning.

As an instructor in any intensive English setting, formulating flexible lessons that students can have a say in, take part in, and be independent in are among the best-laid plans. Paying attention to student self-involvement during an activity can help determine how much learning is occurring. The active, multi-sensory, multi-media activities have the advantage in this study, no matter how slight.

## References

- Al-Seghayer, K. (2001). The effect of multimedia annotation modes on L2 vocabulary acquisition: A comparative study. *Language Learning & Technology*, 5 (1), 202 – 232.
- Baddeley, A. (1997). *Human Memory: Theory and Practice* (revised ed.) Hove: Psychology Press.
- Barr, Robert & Tagg, John. (1995). From teaching to learning – A new paradigm for undergraduate education. *Change*. Retrieved from <http://www.ius.edu/ilte/pdf/BarrTagg.pdf>
- Bauer, L., & Nation, P. (1993). Word families. *International Journal of Lexicography*, 6, 253–279.
- Beaton, A., Gruneberg, M., & Ellis, N. (1995). Retention of foreign vocabulary using the keyword method: A ten-year follow-up. *Second Language Research*, 11, 112 – 120.
- Boss, Suzie. (2011). Project Based Learning: A Short History. edutopia. <http://www.edutopia.org/project-based-learning-history>
- Brown, D. (2000). *Teaching by principles: An interactive approach to language pedagogy* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Brown, D. (2009). Why and how textbooks should encourage extensive reading. *ELT Journal*, 63(3), 238-245.
- Buck Institute for Education, BIE.org.
- Bygate, M. (2001). Effects of task repetition on the structure and control of oral language. In M. Bygate, P. Skehan & M. Swain (Eds.), *Researching pedagogic tasks: Second language learning, teaching and testing* (pp. 21-48). Harlow: Longman.
- Carlson, S. (2005). The Net Generation Goes to College. *The chronicle of higher education*, 52 (7). p. A34.
- Chapelle, Carol. (2009). The relationship between second language acquisition theory and computer-assisted language learning. *The Modern Language Journal*, 93. Focus Issue: *Technology in the Service of Language Learning: Update on Garrett (1991) Trends and Issues*, 741 – 753.
- Chase, W.G. & Simon, H.A. (1973). Perception in Chess. *Cognitive Psychology*, 4 (1), 55 – 81.
- Chun, D., & Plass, J. (1996). Effects of multimedia annotations on vocabulary acquisition. *The Modern Language Journal*, 80(2), 183 - 198.
- Coady, J. (1997). L2 vocabulary acquisition through extensive reading. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition: A rationale for pedagogy* (pp. 225–237). New York: Cambridge University Press.
- Cook, Vivian. (2002). Key issues for SLA research. *Academia.edu*. [https://www.academia.edu/610372/Key\\_Issues\\_in\\_Second\\_Language\\_Acquisition\\_SLA](https://www.academia.edu/610372/Key_Issues_in_Second_Language_Acquisition_SLA)
- Craik, F.,& Lockhart, R. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behaviour*, 11. 671 - 684.
- Craik, F.,& Tulving, E. (1975). Depth of processing and the retention of words in episodic memory. *Journal of Experimental Psychology: General*, 104, 268 - 294.
- Damasio, H., Grabowski, T. J., Tranel, D., Hichwa, R. D., & Damasio, A.R. (1996). A neural basis for lexical retrieval. *Nature.*, 380, 499.505.
- Davis, N., & Lyman-Hager, M. (1997). Computers and L2 reading: Student performance, student attitudes. *Foreign Language Annals*, 30(1), 58 - 72.

- Day, R. R., & Bamford, J. (1998). *Extensive reading in the second language classroom*. New York: Cambridge University Press.
- DeKeyser, R. M. (Ed.). (2007). *Practice in a second language: Perspectives from applied linguistics and cognitive psychology*. Cambridge: Cambridge University Press.
- Diakidoy, Irene-Anna. (1993). The role of reading comprehension and local context: Characteristics in word meaning during reading. *Unpublished PhD. dissertation*. University of Illinois at Urbana-Champaign.
- Doughty, C., & Williams, J. (1998). *Focus on Form in Classroom Second Language Acquisition*. Cambridge: Cambridge University Press.
- Duff, Patricia & Bailey, Kathleen. (2001). Identifying research priorities: Themes and directions for the TESOL International Foundation. *TESOL Quarterly*, 35 (4). pp. 595 – 616.
- DuFrene, Debbie & Lehman, Carol. (2004). Concept, content, construction, and contingencies: Getting the horse before the PowerPoint cart. *Business Communication Quarterly*, 67 (1), 84 – 88.
- Ellis, N.C. (1994). Vocabulary acquisition: The implicit ins and outs of explicit cognitive mediation. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 211 - 282). London: Academic Press.
- Ellis, N. C. & Beaton, Alan. (1995). Psycholinguistic determinants of foreign language vocabulary learning. Harley, Brigit. (Eds.) *Lexical issues in language learning*. pp. 107 – 165.
- Ellis, Rod. (1998). Research agenda for adult ESL. *Center for Applied Linguistics*, December.
- Ernest, C.H. & Paivio, A. (1969). Imagery ability in paired-associate and incidental learning. *Psychonomic Science*, 15, 181 – 182.
- Few, S. (2004). *Show Me the Numbers: Designing Tables and Graphs to Enlighten*. Oakland, CA: Analytics Press.
- Gass, S. (1997). Input, interaction, and the second language learner. Mahwah, NJ: Erlbaum.
- “Have you seen this child? Matthew Grover. (2014). [www.missingkids.com](http://www.missingkids.com)
- Haynes, M.(1989).Individual differences in Chinese readers of English: Orthography and reading. Unpublished doctoral dissertation, Michigan State University, East Lansing, MI.
- Haynes, M. & Baker, I.(1993).American and Chinese readers learning from lexical familiarizations in English text. In T. Huckin, M. Haynes, & J. Coady. (Eds.), (pp.130 - 150). Norwood, NJ: Ablex.
- Heavey, Susan. (2013). U.S. universities see record number of foreign students, many from China. *Featured Articles, Chicago Tribune News*.  
[http://articles.chicagotribune.com/2013-11-11/news/sns-rt-us-usa-education-international-20131111\\_1\\_international-students-foreign-students-u-s-students](http://articles.chicagotribune.com/2013-11-11/news/sns-rt-us-usa-education-international-20131111_1_international-students-foreign-students-u-s-students)
- Horst, M., Cobb, T., & Meara, P. (1998). Beyond *A Clockwork Orange*: Acquiring second language vocabulary through reading. *Reading in a Foreign Language*, 11, 207–223.
- Hui-Tzu, Min. (2008). EFL vocabulary acquisition and retention: reading plus vocabulary enhancement activities and narrow reading. *Language Learning* 58 (1), 73 – 115.
- Hulstijn, J. H. (1992). Retention of inferred and given word meanings: Experiments in incidental vocabulary learning. In P. J. L. Arnaud & H. Be’joint (Eds.), *Vocabulary and applied linguistics*, 113–125. Basingstoke, UK: Macmillan.

- Hulstijn, J., Hollander, M., & Greidanus, T. (1996). Incidental vocabulary learning by advanced foreign language students: The influence of marginal glosses, dictionary use, and reoccurrence of unknown words. *The Modern Language Journal*, 80, 327–339.
- Institute of International Education. <http://www.iie.org>
- Jenkins, J.R. Stein, M.L., & Wysocki, K. (1984). Learning vocabulary through reading. *American Educational Research Journal*, 31, 767 – 787.
- Jensen, A. (1980). *Bias in Mental Testing*. New York: Free Press.
- Knight, S. (1994). Dictionary use while reading: The effects on comprehension and vocabulary acquisition for students of different verbal abilities. *Modern Language Journal*, 78, 285–299.
- Krashen, S. (1993). *The power of reading*. Englewood, NJ: Libraries Unlimited.
- Kuhlman, C.K. (1960). Visual imagery in children. *Unpublished doctoral dissertation*. Radcliffe College.
- Laufer, B. 2003. Vocabulary acquisition in a second language: do learners really acquire most vocabulary by reading? *Canadian Modern Language Review* 59, 4: 565-585
- Laufer, B. (2000). Electronic dictionaries and incidental vocabulary acquisition. Does technology make a difference? In U. Heid, S. Evert, E. Lehmann, & C. Rohrer (Eds.), *EURALEX* (pp. 849–854). Stuttgart: Stuttgart University.
- Laufer, B., & Hulstijn, J. (2001). Incidental vocabulary acquisition in a second language: The loop construct of task-induced involvement. *Applied Linguistics*, 22, 1 -- 26.
- Levy, M. (1997). *Computer-assisted language learning: context and conceptualization*. Oxford, UK: Oxford University Press.
- Lincoln, Abraham. (1862). Second Annual Message [to Congress]. John T. Woolley and Gerhard Peters, *The American Presidency Project* [online]. Santa Barbara, CA.
- Lockhart, R., & Craik, F. (1990). Levels of processing: A retrospective commentary on a framework of memory research. *Canadian Journal of Psychology*, 44, 87 -- 112.
- Luppescu, S., & Day, R. R. (1993). Reading, dictionaries and vocabulary learning. *Language Learning*, 43, 263–287.
- Lyman-Hager, M., Davis, N., Burnett, J., & Chennault, R. (1993). Us Vie de Boy: Interactive reading in French. In F. L. Borchardt & E.M.T. Johnson (Eds.), *Proceedings of CALICO 1993 Annual Symposium on Assessment* (pp. 93-97). Durham, NC: Duke University.
- Lynch, T. (1997). ‘Nudge, nudge: teacher interventions in task-based learner talk’. *English Language Teacher Journal* 51/4:317-325.
- Martinez-Lage, A. (1997). Hypermedia technology for teaching reading. In M. Bush & R. Terry (Eds.), *Technology enhanced language learning* (pp. 121-163). Lincolnwood, IL: National Textbook Company.
- Mayer, R.E. (2001). *Multimedia Learning*. Cambridge University Press. ISBN: 0-521-78749-1.
- Mayer, E. (1997). Multimedia learning: Are we asking the right questions? *Educational Psychologist*, 32(1), 1-19.
- Muyskens, J. (Ed.). (1997). *New ways of learning and teaching: focus on technology and foreign language education*. Boston: Heinle & Heinle Publishers.
- Nagy, W.E., Anderson, R.C., & Herman, P.A.. (1987). Learning word meanings from context during normal reading. *American Educational Research Journal*, 24, 237 – 270.
- Nagy, W.E. & Herman, P.A. (1987) Breadth and depth of vocabulary knowledge: Implications for acquisition and instruction. In M. McKeown & M. Curtis (Eds.), *The nature of vocabulary acquisition* (pp. 19 – 35). Mahwah, NJ: Erlbaum.

- Nagy, W.E., Herman, P.A., & Anderson, R.C. (1985). Learning words from context. *Reading Research Quarterly*, 20, 233 – 253.
- Nation, I.S.P. (2001). *Learning vocabulary in another language*. New York: Cambridge University Press.
- Nation, I. S. P. (1994). Morphology and language learning. In R.E. Asher (Ed.), *The encyclopedia of language and linguistics* (pp. 2582–2585). Oxford: Pergamon Press.
- Nation, I.S.P. (1990). *Teaching and learning vocabulary*. Rowley, MA: Newbury House.
- Nation, I. S. P., & Waring, R. (1997). Vocabulary size, text coverage, and word lists. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition, and pedagogy* (pp. 6–19). New York: Cambridge University Press.
- Newton, J. (1993). Task-based interaction among adult learners of English, and its role in Second Language Acquisition. *Unpublished PhD thesis*. Victoria Univeristiy of Wellington, New Zealand.
- Open Doors. 2013 “Fast Facts”. *Institute of International Education*.  
<http://www.iie.org/en/Research-and-Publications/Open-Doors/FAQ>
- Oxford, R., & Crookall, D. (1990). Vocabulary learning: "A critical Analysis of techniques." *TESL Canada Journal* 7(2), 9-30.
- Paivio, A. (1971). *Imagery and verbal processes*. New York: Holt, Rinehart, and Winston.
- Paivio, A., & Begg, I. (1981). *Psychology of language*. Englewood Cliffs, NJ: Prentice Hall.
- Paivio, A., & Desrochers, A. (1980). A dual -coding approach to building memory. *Canadian Journal of Psychology*, 34(4), 388-899.
- Paribakht, T. S., & Wesche, M. (1997). Vocabulary enhancement activities and readingfor meaning in second language vocabulary development. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition: A rationale for pedagogy* (pp. 174–200). New York: Cambridge University Press.
- Parry,K.(1997).Vocabulary and comprehension: Two portraits. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition: A rationale for pedagogy*, (pp.55±68). Cambridge, England: Cambridge University Press.
- Pennington, M. (Ed.). (1996). *The power of CALL*. Houston, TX: Athelstan.
- Pérez-Peña, R. (2014). Universities Try a Cultural Bridge to Lure Foreign Students. *The New York Times*.
- Plass, J., & Jones, L. (2005). Multimedia learning in second language acquisition. In *The Cambridge handbook of multimedia learning*, R. Mayer, Ed. New York: Cambridge University Press, pp. 467-488.
- Pulido, Diana. (2003). Modeling the Role of Second Language Proficiency and Topic Familiarity in Second Language Incidental Vocabulary Acquisition Through Reading. *LanguageLearning*, 53:2, pp.233 –284.
- Rapaport, William J. (compiler) (2004), *A (Partial) Bibliography (in Chronological Order) of (Computational) Theories of Contextual Vocabulary Acquisition*.  
<http://www.cse.buffalo.edu/~rapaport/refs.vocab.html>
- Rott, S. (1999). The effect of exposure frequency on intermediate language learners’ incidental vocabulary acquisition and retention through reading. *Studies in Second Language Acquisition*, 21, 589–619.
- Sacramento State University. (2014). Testing for English Skills. *Global Education/International Admissions*.

- Seedhouse, P. (1997). Combing form and meaning. *English Language Teacher Journal* 51/4: 336-344.
- Skehan, P. (1996). A framework for the implementation of task based instruction. *Applied Linguistics* 17: 38–62.
- Stanovich, K.E., & Cunningham, A.E. (1992). Studying the consequences of literacy within a literate society: The cognitive correlates of print exposure. *Memory and Cognition*, 20, 51-68.
- Sternberg, R.J. (1987). Most vocabulary is learned from context. In M.G. McKeown & M.E. Curtis (Eds.), *The Nature of Vocabulary Acquisition* (pp. 89-105). Hillsdale, N.J.: Lawrence Erlbaum.
- Sternberg, R.J. (1985). *Beyond IQ: A Triarchic Theory of Human Intelligence*. Cambridge: Cambridge University Press.
- Stewart, J.C. (1965). An experimental investigation of imagery. *Unpublished doctoral dissertation*. University of Toronto.
- Strauss, J; Corrigan, H. & Hofacker, C. (2011). Optimizing student learning: Examining the use of presentation slides. *Marketing Education Review*, 2 (2), p. 151).
- Sweller, J. (1994). Cognitive load theory, learning difficulty, and instructional design. *Learning and Instruction*, 4, 295 – 312.
- Watanabe, Y. (1997). Input, intake, and retention: Effects of increased processing on incidental learning of foreign language vocabulary. *Studies in Second Language Acquisition*, 19, 287–308.
- Waring, R. (1997) A comparison of the receptive and productive vocabulary sizes of some second language learners. *Immaculata* [occasional papers of Notre Dame Seishin University, Okayama], I, 53 – 68.
- Waring, R., & Takaki, M. (2003). At what rate do learners learn and retain new vocabulary from reading a graded reader? *Reading in a Foreign Language*, 15,130–163.
- Warschauer, M. (1996). Computer-assisted language learning: An introduction. In S. Fotos (Ed.), *Multimedia language teaching* (pp. 3-20). Tokyo: Logos International.
- Warschauer, M., & Healey, D. (1998). Computers and language learning: An overview. *Language Teaching*, 31, 57-71.
- Webb, Stuart. (2005). Receptive and productive vocabulary: The Effects of reading and writing on word knowledge. *Studies in Second Language Acquisition*. Vol. 27 (1), 33 – 52. DOI: <http://dx.doi.org/10.1017/S0272263105050023>
- Wittrock, M.C. (1974 a). Learning as a generative process. *Educational Psychologist*, 1 (2), 87 – 95.
- Wittrock, M.C. (1974 b). A generative model of mathematics education. *Journal for Research in Mathematics Education*, 5 (4), 181 – 196.

**APPENDIX**

- A. Lesson Plan for Day 1, Class A
- B. “My Father” a reading
- C. Campus Police, Missing Child Report
- D. Internet Missing Child Profile
- E. Lesson Plan for Day 1, Class B
- F. Missing Child Reading
- G. Survey for Days 1 and 3, template
- H. Lesson Plans, Day 3, Classes A and B
- I. Verb page, Class A
- J. Verb page, Class B
- K. Quiz for end of unit
- L. Post quiz
- M. Survey Statistics, Class A, Days 1 and 3
- N. Survey Statistics, Class B, Days 1 and 3

*Appendix A*

**Lesson Plan for Day 1, Class A**

Monday, January 27, 2014

9:00 EN IEI 106 (Group 1A)

The students will receive an e-mail over the week-end with the new vocabulary for Monday. It will require that they read for comprehension but the words will be used in a different manner than for Monday's activity. They will also be sent a copy of the "detective" report to read for comprehension plus an audio file of me reading the questions. This will ease the time some in class on Monday.

Class Monday:

There are 10 students. 8 males, 2 females. 1 Chinese male; 9 Arabs. Diane Brooks, instructor. Class is in CA 110.

Half of the students will receive a "detective" form and given a chance to read it before "working" with the reporting person. The other half of the students will receive a Missing Child form taken from [www.missingkids.com/search](http://www.missingkids.com/search). They will also have a chance to read it before answering questions.

Approximately 3 - 4 minutes later, a detective will be paired with a reporting person. From this point on, English is the only language to be used. The detective will ask the reporting person the questions and the reporting person will answer in a complete sentence. The detective will write down the answers. When the pair is done, they will turn the papers in to the instructor. This will stop after 15 minutes.

Then, the roles will reverse and the reporting person will become the detective and the detective the reporting person with a different missing child sheet. After 15 minutes, the sheets will be collected.

The remainder of the time will be spent debriefing.

Which job did you like better? Why?

Was there a question that was harder/easier to answer? Which one(s)?

Are missing children a problem in your country?

What can adults do to keep children safe?

What should adults tell children about strangers?

Who IS a stranger?

*Appendix B*

**“My Father” a reading**

**All of the words for vocabulary 3.2 are nouns. Read the story below. Vocabulary words are underlined. If you do not know a word, look it up. Write the word on your plastic writing sheet with your dry erase marker. Write it until you are comfortable spelling it and making the letters correctly.**

**After the story there are questions. Please answer each question with a complete sentence. Print out the answer page and bring it to class on Monday.**

My Father

My father died 1.5 years ago. His name was Charles. Everyone called him Charlie. I called him Dad. As a kid my two brothers and I spent hours watching ball games with him. His favorite team was the Bears. Television was his best friend. Dad and his wife, my mom, were the only parents we three had.

My dad worked in Chicago. He drove his car to the train station and took the train into the city. The train in Chicago is called “The Loop” because it goes around the city, making a loop. At each stop the train gave information about the name of the stop and which stop was next. His ride took about 45 minutes. Dad’s office was near the Sears Tower. In fact, the Sears Tower is part of my own history. My family watched them build the tower. When it was finished, we went to the top of the tower and could see for miles.

My dad was the “law” in our family. He was a person that enjoyed having control. He had ideas about what a girl was supposed to do and what a boy was supposed to do. By the age of 12, a guy could have an interest in music and art, but not for a job. Sons were supposed to go to college. Girls were supposed to help with the food and to be careful to choose the best price at the store. Girls could use their minds to learn things in class, but their job as an adult was to be a teacher and use their education.

One time my dad got the idea to own a dog. The dog liked to run away. The police officers brought the dog back to our front door every time. The police told him that if they brought the dog back one more time they would file a report. That was the end of Willie-Dog and the end of a bad plan. The dog found a new family.

My dad’s health became bad. He had trouble breathing and could not get enough air into his lungs. One time his oxygen level was so low the doctor decided Dad needed to wear an

oxygen machine all the time. Dad's heart was also not good. He took many drugs to keep his heart and body working. On the morning of June 1, 2012 my dad fell and hit his head. He went to the hospital and the doctors were very busy with him. They put a light in his eyes, and it was not good. When I got to the hospital, I stood at the foot of Dad's hospital bed. I could see in his face that the end of his life on earth was soon. The flat line on the machines told all of us that his death was real. That was June 3, 2013. I miss my dad.

1. What was my father's name?

---

2. Where did my father work?

---

3. Who was supposed to become a teacher?

---

4. How long was my dad's train ride?

---

5. When did my father die?

---

*Appendix C*

**Campus Police, Missing Child Report**



**Campus Police**  
*Missing Child Report*

**Detective:** \_\_\_\_\_

Reporting Person: \_\_\_\_\_ Relationship to child:

Child's name: (First \_\_\_\_\_

(Middle) \_\_\_\_\_ (Last) \_\_\_\_\_

Child's date of birth: (Month) \_\_\_\_\_ (Date) \_\_\_\_\_

(Year) \_\_\_\_\_

Date child last seen: (Month) \_\_\_\_\_ (Date) \_\_\_\_\_

(Year) \_\_\_\_\_

Child's age now: \_\_\_\_\_

Gender (Circle one) MALE

FEMALE

Child's race: \_\_\_\_\_

Color of eyes: \_\_\_\_\_

Color of hair: \_\_\_\_\_

Height: (in feet and inches) \_\_\_\_\_' \_\_\_\_\_"

Weight: (in pounds) \_\_\_\_\_

**Other information:**

Was this child with another person? Name:

Was this person the child's (circle one) Father Mother Other Family Member

Not Family

What time was the child last seen? (hour and minutes)

Do 'you' have any idea where the child could be?

Is there anything different about the child's body? Tattoo(s)

(where) \_\_\_\_\_

Piercing(s) (where?)

Birth mark(s) (where and shape?)

Glasses? Braces on teeth or legs? Other?

Is there a history of this child running away?

Does the child have a health problem? No Yes (What?)

What was the child wearing when 'you' last saw him/her?

---

## Appendix D

### Internet Missing Child Profile

The screenshot shows a web browser window displaying a missing child profile on the website [www.missingkids.com](http://www.missingkids.com). The browser's address bar shows the URL [www.missingkids.com/poster/NCMC/1226811/1](http://www.missingkids.com/poster/NCMC/1226811/1). The website header features the logo for "EXPLOITED CHILDREN" and a navigation menu with options: "WHO WE ARE", "WHAT WE DO", "HOW YOU CAN HELP", and "RESOURCES". There are also social media icons for Facebook, Twitter, and YouTube.

The main content area is titled "MISSING HELP BRING ME HOME" and includes the following information:

- Matthew Grover** (Name)
- Missing Since:** Dec 21, 2013
- Missing From:** Indianapolis, IN
- DOB:** Mar 19, 1998
- Age Now:** 15
- Sex:** Male
- Race:** White
- Hair Color:** Lt. Brown
- Eye Color:** Hazel
- Height:** 5'5"
- Weight:** 120 lbs

A note states: "Matthew was last seen on December 21, 2013. He may go by the nickname Matt."

At the bottom, there is a call to action: "DON'T HESITATE! CALL 911 or 1-800-843-5678 (1-800-THE-LOST®)". It also mentions "ANYONE HAVING INFORMATION SHOULD CONTACT Indianapolis Metropolitan Police Department (Indiana) 1-317-327-3811". The case is handled by the "NATIONAL CENTER FOR MISSING & EXPLOITED CHILDREN".

\* [www.missingkids.com](http://www.missingkids.com)

## *Appendix E*

### **Lesson Plan for Day 1, Class B**

Monday, January 27, 2014  
10:00 EN IEI 106 (2A) LA 017S  
Instructor: Diane Brooks

Over the week-end these students will receive a worksheet introducing the vocabulary words for Monday. The presentation will be different than Monday's work, but will still encourage the student to determine meaning from context. [This group will not receive the detective's sheet.]

Monday: 11 students, all Arab. 5 women, 6 men. Narrow room with tables lined up down the middle. Rolling chairs at the table on both sides. There are white boards along one narrow end and one long end. The women sit usually on one side near the front of the room (based on the door's location) and the men sit on the opposite side, and the opposite end.

As the students come in, they will be given the handout about the missing child and the detective sheet. They will be told to read the story and to fill in the blanks on the detective's sheet. They may not use any electronic device and there will be no talking.

The students will turn in the papers as they finish. For those that finish early, they may start on the homework. Once all detective sheets are turned in, the class will talk about missing children as the other class has.

*Appendix F*

**Missing Child Reading**



**Campus Police**

*Missing Child Report*

NOTICE: January 25, 2014

MUNCIE, IN We have a report of a missing child. Please be looking around you in case you see the child or the woman that was seen with him last. Tommy Night, age 5, was last seen in his back yard on the north side of Muncie. His mother Janet was inside making coffee while her friend Anita Black was outside watching Tommy and his baby sister Nora play. When Mrs. Night came outside with the coffee, Tommy and Mrs. Black were gone. Only Nora was there in her baby bed.

Tommy is a white child. He has light brown hair, brown eyes, and wears glasses. He has a red birthmark on his right arm. He is 4'2" tall and weighs about 50 pounds. He was wearing a pair of blue jeans, a white tee shirt with a green truck picture on it, and red shoes. Mrs. Night does not know if he had on a jacket, or not.

Mrs. Black is also white, aged 45 and drives a dark green Ford Fiesta car. She is from Muncie but has family in Kentucky and Alabama. She smokes cigarettes according to Mrs. Night. Since Mrs. Black does not have children, her car will not have a child's car seat.

If you have any information about where Tommy Night could be, or if you see a car that fits the description, please call campus police as soon as possible. Make sure to notice which way the car was going and if you saw a child in the car. We thank you for your help in returning Tommy to his mother.



This photo was taken six months ago.

*Appendix G*

**Survey for Days 1 and 3, template**

**Use the following face chart to show your thinking about today's class.**



- 0 = Today I learned a lot
- 1 = Today I learned some
- 2 = Today I may have learned something
- 3 = Today I'm not sure I learned anything
- 4 = Today I'm sure I learned nothing
- 5 = Today's class was very bad in every way

**Tell me why you chose the face you did.**

I chose number \_\_\_\_\_ because \_\_\_\_\_

---

---

**What could make today's class better? Why?**

---

---

---

**Would you like to do something like this again? YES NO**

*Appendix H*

**Lesson Plans, Day 3, Classes A and B**

Group A: Thursday, January 30, 2014

9:00, 9 students, 2 women (Arab), 7 men (1 Chinese, 6 Arab)

CA 110, pod chairs, pillars with electric access

Removable white boards on walls

chalk board

Students will be advised in an e-mail on Wednesday to bring their laptop computers. If they choose not to do this, their iPhones ‘can’ work, but it is more difficult.

Assignment for class: Students will be given a list of verbs from the 106 vocabulary list, from the end of the first half of the list. They will be asked to confirm knowledge of the verbs by translating those they are not sure of.

They will be asked to create a power point presentation using online photos that express the meaning of the verbs. This presentation will be viewed in class on Friday, followed by an announced quiz of over the nouns from Monday and the verbs from Thursday – meaning,

Group B:

10:00, 11 students, 5 Arab women, 6 Arab men

LA 017 S, long table with office chairs down both sides

white board on entire length of long wall, white board on short wall near door

DUE to room being non-conducive to the activity, we will move to the commons area of LA, outside the food stores.

Assignment for class: Students will be advised in an e-mail Wednesday to bring their smart phones or iPads in order to capture photographs.

The students will receive the same list of verbs as Group A. They will write the verb on a piece of paper using marker. They will be asked to “perform” the verb’s action (after securing the actual meaning by translating if necessary) and to snap a photo of them doing the activity. The photos can be the “Selfie” type, or a partner can take pictures of the other. Students must end up with a photo of themselves performing the action of the verb.

These images will be sent digitally to me and I will upload them into a book format, sold at Walgreen’s. Its title will be “Level F Does Verbs” or something. This will be done at my cost. Friday will also involve a quiz as for Group A.

Both classes will be given a survey about how they felt about the Thursday activity on Thursday. On Friday they will be given a survey comparing their two activity days.

*Appendix I*

**Verb page, Class A**

9:00 Class

- 1) CHOOSE 10 of the verbs from the list below. Write a sentence using each verb one time. In the end, you will have 10 sentences. You can use the simple present, the simple past, or both.
- 2) Use power point or Google Presentation to make a presentation. Type one sentence on each slide. You will have 10 slides plus a title slide with your name and class time.
- 3) Find pictures online that make you sentence in pictures. See my example.
- 4) Send my your finished power point presentation to [dlbrooks2@bsu.edu](mailto:dlbrooks2@bsu.edu) by 6:00 p.m. Thursday evening.

sit  
stand  
meet  
understand  
read  
spend  
walk  
wait  
raise  
pass  
pull  
return  
hope  
open  
stop  
watch  
pay  
love



My children stand in the snow.

*Appendix J*

**Verb page, Class B**

10:00 Class

- 1) CHOOSE 10 of the verbs from the list below.
- 2) Write a verb on a card. You will have 10 different cards. Write big enough so that it can be read from your picture.
- 3) Use your imagination to think how you can make a Selfie with the verb. You can have a partner take your picture instead of you, but YOU must be in the picture.
- 4) You can use anything in the cafeteria area that you need to help you with your photo.
- 5) Send your 10 Selfie pictures to me at [dlbrooks2@bsu.edu](mailto:dlbrooks2@bsu.edu) by 6:00 p.m. Thursday evening.

sit  
stand  
meet  
understand  
read  
spend  
walk  
wait  
raise  
pass  
pull  
return  
hope  
open  
stop  
watch  
pay  
love



Selfie = a photo of yourself

*Appendix K*

**Quiz for end of unit**

ENIEI 106 Quiz for Friday, January 31, 2014

9:00



**Circle** the answer that works better. EX: The **(air)** (education) is hard to breathe.

1. My (friend) (parents) love me.
2. His (class) (age) stops at 17:00.
3. Her (foot) (drug) grows bigger.
4. Our (line) (price) opens at 6:00.
5. Their (price) (death) was fast.
6. The (team) (heart) waits for the bus.
7. I need (information) (face).
8. Wait a (age) (minute) please. I am almost ready.
9. The (end) (report) is about Mexico.
10. What (level) (art) museum do you like?
11. Turn on the (light) (history) in the classroom.
12. We played a (game) (interest) of football.
13. He (sits) (stands) in line.
14. She (stays) (raise) at home.
15. Please (return) (send) me a letter from home.
16. John (sells) (opens) pencils at the market.
17. I must (spend) (read) my book!
18. I want to (watch) (cut) the Winter Olympics!
19. Maha (dies) (hopes) she passes Level 2.
20. The door says (“Pull”) (“Buy”). Why are you pushing?



OR



ex: mom \_\_\_=\_\_\_ mother

1b. boy \_\_\_\_\_ guy

4b. raise \_\_\_\_\_ fall

2b. pass \_\_\_\_\_ hope

5b. stop \_\_\_\_\_ wait

3b. end \_\_\_\_\_ begin

*Appendix L*

**Post quiz**

ENIEI 106 noun and verbs quiz  
Post Week Learning

Circle the answer that works best. EX: The (air) (education) is hard to breathe.

1. She (reads) (waits) for the bus.
2. I need (information) (line) for this homework.
3. My (book) (parents) live in India.
4. You must (push) (watch) the door to open it.
5. I want to (stay) (watch) the football game.
6. She must (eat) (raise) her hand to answer the question.
7. María (died) (hoped) from a bad heart.
8. (Stop) (Buy) this pen now because it is on sale.
9. Our baby's (name) (date of birth) is Rodrigo.
10. His (age) (height) is six feet.
11. What (shoes) (name) was he wearing last night?
12. ~~She (raised) (missed) the answer on the test. —deleted for different def.~~
13. The (boy) (man) is the missing child.
14. The (friend) (hospital) is the building near Ball State.
15. My (father) (history) worked in Chicago.
16. Did he (sell) (say) where he lives?

Use the words below to finish the sentences below. Each word can be used only one time.

There ARE extra words.

<del>from</del>	university	car	street	where
missing	who	birthday	loves	wait

EX: Ali is \_\_\_\_\_ KSA.

17. The child rides in a blue \_\_\_\_\_.
18. When is your \_\_\_\_\_?

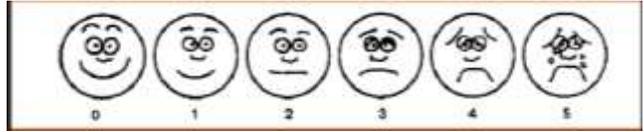
19. My daughter is \_\_\_\_\_ her book. Have you seen it?

20. Mrs. Brooks \_\_\_\_\_ to teach.

*Appendix M 1*

**Survey Statistics, Class A, Day 1**

**Use the following face chart to show your thinking about today's class.**



- |   |   |
|---|---|
| 0 = Today I learned a lot                   | 2 |
| 1 = Today I learned some                    | 1 |
| 2 = Today I may have learned something      |   |
| 3 = Today I'm not sure I learned anything   | 1 |
| 4 = Today I'm sure I learned nothing        | 1 |
| 5 = Today's class was very bad in every way |   |

**Tell me why you chose the face you did.**

I chose number \_\_\_\_\_ because "0: I learned a lot." "1: Not feeling well." "0: Too much knowledge." "3: I don't understand well in lecture." "4: I don't have time."

**What could make today's class better? Why?**

"0: Teacher speaking speed." "1: Diane is good and funny." "0: Nothing." "3: Teamwork facilitates understanding and comprehension." "4: I like reading class because it is easy."

**Would you like to do something like this again? YES NO**

All students circled "Yes"

Day 1 Average Score: 1.6: "Felt they learned some or may have learned some"

*Appendix M 2*

*Survey Statistics, Class A, Day 3*



- 0 = Today I learned a lot 2
- 1 = Today I learned some 1
- 2 = Today I may have learned something
- 3 = Today I'm not sure I learned anything 3
- 4 = Today I'm sure I learned nothing 1
- 5 = Today's class was very bad in every way

Average Score: 2 = felt they may have learned something

**Tell me why you chose the face you did.**

I chose number \_\_\_\_\_ because "3: I don't understand." "1: I try to work show by English." "0: I learned a lot." "3: I don't have time and I'm sick." "3: It's something new in today's sentences and we have to ingest more." "4: Do not grasp the lesson." "0: Interesting."

**What could make today's class better? Why?**

"3: I need repetition." "1: I make some sentences." "0: Teacher speaks too fast." "3: Mrs. Brooks . . . class very easy." "3: no answer." "0: The class is pretty good."

**Would you like to do something like this again? YES NO**

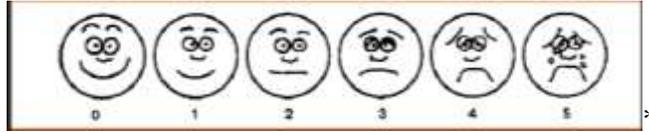
Yes = 5; no answer = 2

Day 3: Class A

*Appendix N 1*

**Survey Statistics, Class B, Day 1**

**Use the following face chart to show your thinking about today's class.**



- |   |   |
|---|---|
| 0 = Today I learned a lot                   | 1 |
| 1 = Today I learned some                    |   |
| 2 = Today I may have learned something      | 1 |
| 3 = Today I'm not sure I learned anything   |   |
| 4 = Today I'm sure I learned nothing        |   |
| 5 = Today's class was very bad in every way | 1 |

Average Score: 2.33 = felt they may have learned something to they weren't sure they learned anything

**Tell me why you chose the face you did.**

I chose number \_\_\_\_\_ because "2: Many word is difficult." "5: "Information is difficult and many." "0: I understand."

**What could make today's class better? Why?**

"2: Working in a group better." "5: Teamwork in class makes understanding better." "0: Because

I have meet after I watch TV."

**Would you like to do something like this again? YES NO**

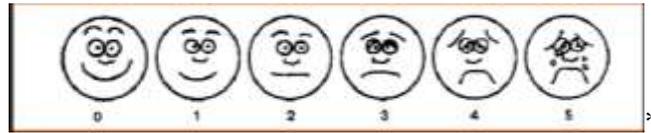
Yes = 3

Day 1: Class B

*Appendix N 2*

**Survey Statistics, Class B, Day 3**

**Use the following face chart to show your thinking about today's class.**



- |   |     |
|---|-----|
| 0 = Today I learned a lot                   | 2.5 |
| 1 = Today I learned some                    | 5.5 |
| 2 = Today I may have learned something      | 2   |
| 3 = Today I'm not sure I learned anything   |     |
| 4 = Today I'm sure I learned nothing        |     |
| 5 = Today's class was very bad in every way | 1   |

Average Score: 1.25 = Felt that they learned some to they may have learned something

**Tell me why you chose the face you did.**

I chose number \_\_\_\_\_ because "2: I make the card." "1: the directions were good." "1: the directions were good." "5: I do not understand." "0: I understand." "1: excited." "1: I work card for word and understand a meaning." "0.5: I understand what you say." "0: I understand." "1: I am excited to pictures."

**What could make today's class better? Why?**

"2: I don't like the idea of photography and the time required for transmission inappropriate." "1: I do like take picture." "1: Because I do not read." "0: Because I have meet after that I watch TV." "1: I understand what to do." "1: I make some cards about some words. This is a good way to don't forget the words." "0.5: You need clarification sometimes; make card and new activities and photo is good job today." "0: because I have pay rent house." "1: I send the pictures in your email."

**Would you like to do something like this again? YES NO**

Yes = 6; No = 2; No answer = 2

Day 3: Class B