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MOTIVATION FOR VOCABULARY LEARNING

OF COLLEGE STUDENTS

By

Qizhen Deng

A THESIS

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MOTIVATION FOR VOCABULARY LEARNING

OF COLLEGE STUDENTS

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Univeristy of Nebraska, 2010

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The purpose of this study is to construct and validate an instrument to measure motivation for vocabulary learning, opening the door to more studies on motivation for vocabulary learning in reading and listening. In the new 34-item questionnaire: Motivation for Vocabulary Learning Questionnaire (MVLQ), eleven subscales were examined within two motivational constructs, namely, self-efficacy and attitude. Participants in this study were 121traditional undergraduate students from a Midwestern research university. Students responded to two self-report questionnaires: the Motivation for Vocabulary Learning Questionnaire (MVLQ), and the Motivation for Reading Questionnaire (MRQ) (Wigfield & Guthrie,1997). The results suggested that MVLQ had good reliability and validity. Self-efficacy for vocabulary learning in reading was higher than that in listening. No difference in motivation for vocabulary learning was found between reading for leisure and academic goals. English native speakers had higher motivation for vocabulary learning than English language learners. Significant differences were found for students from different majors (grouped into colleges), while no difference was found for students with different genders and average GPAs.

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CHAPTER I
INTRODUCTION

Vocabulary knowledge plays a critical role in students' academic development to a degree that it is strongly related to reading comprehension (Graves, 2006), academic achievement and lives beyond schools (Beck & McKeown, 2002). At the same time vocabulary learning is a formidable and complex life-long task (Stahl & Nagy, 2006). Students are expected to be persistently motivated in vocabulary learning, to engage in vocabulary instruction, meet vocabulary learning standards to pursue required accomplishment. Central to understanding students' behaviors and emotions in vocabulary learning activities, students' motivation is a necessary step toward indentifying the factors that affecting students' behaviors and emotion in vocabulary learning. Motivation is what activates behavior and helps individuals persist in given tasks (Guthrie & Wigfield, 2000).

This study started from my inquiry into vocabulary learning and vocabulary assessment, especially in conjunction with the motivational constructs of self-efficacy and attitude. When reviewing papers about both general motivation theory and vocabulary research covering vocabulary knowledge, vocabulary instruction and assessment, I found both fields are relatively well-developed; however, I could not find a valid instrument measuring students' motivation for vocabulary learning. As a result, I wondered if it was possible and worthwhile to assess students' motivation for vocabulary learning.

From a literature review, it seems that four major findings support the value of assessing motivation for vocabulary learning. In a nutshell, though motivation is pivotal in learning vocabulary both incidentally and accidentally, assessment of students'

motivation for vocabulary learning is seldom touched. And assessment of students' motivation for vocabulary learning needs to be studied separately from that for reading, in accordance with Bandura's domain-specific concern for assessment in social cognitive theory.

First, very little information is provided about instrument to measure motivation for vocabulary learning in educational research, even though diverse forms of vocabulary assessment have been developed to examine what strategies students use, whether students have grasped instructed vocabulary, and how vocabulary assessment supports vocabulary instructions (Pearson, Hiebert & Kamil, 2007). Also, research on academic motivation rarely touched the realm of vocabulary learning, though research on general motivation and motivation for reading flourished in the past decades (Wigfield & Usher, 1984; Guthrie &Wigfield, 2000).

Second, assessment of self-efficacy needs to be domain-specific (Bandura, 2006). In social cognitive theory, Bandura's (1986) model of triadic reciprocality indicates that self-efficacy can be affected by contextual factors. Bandura (1986) has argued that people "are neither driven by inner forces nor automatically shaped and controlled by external stimuli." Rather, human functioning is explained in the model of "triadic reciprocality" in which behavior, cognitive and other personal factors, and environmental events all operate as determinants of each other. Bandura (1986, 1994) argued that attributes of motivational constructs (i.e., self-efficacy and attitude) are linked to distinct realms of functioning, hence should be studied at domain-specific levels. In other words, high self-efficacy for reading might not predict high self-efficacy for vocabulary learning. And attitude toward reading might not equal to attitude for vocabulary learning. Therefore,

human behavior, such as reading activities and vocabulary learning, might be initiated by different motives and contexts that need domain-specific approaches to measure them.

Third, students need to be motivated to learn vocabulary intentionally as well as incidentally. In the educational arena, researchers have stated the fact that vocabulary learning occurs both in explicit instructions in classroom and incidental learning in written and oral language context (Graves, 2006). Vocabulary learned from explicit instructions in classroom is far less than the total vocabulary that students actually learn throughout academic years. Vocabulary researchers find that a large proportion of vocabulary growth occurs incidentally through a massive amount of immersion in reading and listening, rather than through explicit vocabulary instruction (Chall, Jacobs, & Baldwin, 1990; Nagy & Scott, 2000). The National Reading Panel Report (NICHD, 2000) also reported that vocabulary could be learned incidentally through extensive reading, reading of storybooks, and listening to others. If students are not motivated to learn vocabulary in reading and listening in classroom and especially in incidental learning, the gap in vocabulary knowledge will be larger and subsequently is likely to hinder academic achievement for years to come.

Fourth, I assume that English native speakers might be different from English language learners in self-efficacy, attitude, phonological awareness and morphological awareness. The argument is based on the fact that English language learners (ELL) generally learn English later, and encounter less oral language context than English native speakers. Oral language ability is considered fundamental in language development (Lubliner & Scott, 2008), so that English native speakers who are exposed to ample discussion at home and at school are more likely to encounter and learn rich

vocabulary (Dickinson & Tabors, 2001) and subsequently develop higher motivation for vocabulary learning. Conversely, even though ELLs have deep understanding of their first language, when learning English ELLs pay much attention to vocabulary (Folse, 2004), learn English more often in written forms and intentional formal instructions in classroom than English native speakers, in such a way that ELLs might be generally more linguistically metacognitive and might have high motivation for vocabulary learning especially in morphology and dictionary use.

In conclusion, this study is designed to investigate and validate an instrument to measure motivation for vocabulary learning in reading and listening, and to explore what influence motivation for vocabulary learning. More specifically, two motivational constructs will be addressed—self-efficacy and attitude. With its theoretical foundation of social cognitive theory, the hypothesis in this study is that students' motivation for vocabulary learning is different from motivation for reading, so motivation for vocabulary learning should be studied separately rather than as a integral part of motivation for reading research, specifically for the motivational variables of self-efficacy and attitude.

Chapter II

Review of the Literatures

This study focuses on motivational constructs of self-efficacy and attitude, and on vocabulary learning strategies, which include help-seeking, morphology, context clues, dictionary use reference, spelling and phonology. Self-efficacy and attitude are analyzed in this study because of their close relations with learning, achievement, motivation and self-regulation. For example, recent emphasis on the self-efficacy and attitude's influence on reading has been prominent and shed light on how to improve reading instruction (Rayner et al, 2001). Although effectiveness of vocabulary development depends in large part on meaningful vocabulary instructions (Kamil & Hiebert, 2005), the importance of motivational variables in vocabulary learning seems to be ignored in vocabulary research. Students without motivation for vocabulary learning might not persist in learning new words encountered in written texts and listening situations, accordingly limiting incidental learning of vocabulary. The reason for little information on motivation for vocabulary learning might be that vocabulary knowledge has been closely tied to reading research, due to that, motivation for vocabulary learning might not be considered separate from motivation for reading.

For the purpose of establishing appropriate and specified assessment of self-efficacy belief in the domain of vocabulary learning, measure of vocabulary learning self-efficacy is further categorized into six subscales: morphology, context, help-seeking, dictionary use, spelling, and phonology. These categories are well-accepted dimensions in vocabulary learning research and will be further discussed later.

Self-efficacy

Self-efficacy refers to students' beliefs in their capabilities to reach their goals in given situations (Bandura, 1977, 1986). The beliefs students hold about their ability determine their feelings, motivation, and behaviors better than what is objectively the case (Bandura, 1994). Self-efficacy influences students' self-regulation of motivation, including causal attributions, outcome expectancies, and goal settings (Bandura, 1994). In academic settings, self-efficacy influences the choice students make, the persistence they show when facing obstacles, their affective proclivities during that task, and as a result their academic achievement (Schunk, 1981; Bandura, 1986; Compeau, 1995b; Pajares & Miller, 1997).

Educational researchers have observed that self-efficacy correlates with several important educational outcomes. Significant and positive correlations were obtained between self-efficacy for tasks and subsequent performance on those tasks (Stajkovic & Luthans, 1998; Schunk & Pajares, 2002; Pajares & Urdan, 2006), and between self-efficacy and academic performance (Multon et al,1991). High self-efficacy helps enhancing human accomplishment in different ways. Students with high self-efficacy exert more effort when approaching challenges and consider challenges as goals to be mastered rather than threats to be avoided. Students with high self-efficacy experience less negative emotions during a task (Bandura, 1997). When they face difficulties at certain tasks, they are more likely to recover and persist in their tasks and less likely to be vulnerable to depression and giving up (Bandura, 1994). Often students with high self-efficacy view failure as a result of insufficient effort.

On the other hand, students with low self-efficacy are unsure of their capabilities, view challenges as threats and shy away from demanding tasks. They tend to focus more

on individual deficiencies and potential failures. When facing difficulties, they tend to exaggerate their deficiency, get depressed and give up easily, and hard to recover from failures because they don't believe they are capable of finishing the tasks (Bandura, 1986).

Accordingly, self-efficacy for vocabulary learning is likely to influence students' effort, persistence and emotion when they face new vocabulary. Students with high self-efficacy for vocabulary learning tend to have more faith in their ability to learn vocabulary, exert more effort, and recover more easily when facing obstacles in vocabulary learning.

In order to more precisely predict self-efficacy in particular domain of interest, Bandura (1986,1997, 2006) argued that researchers must be cautious about proper measurement instrument of self-efficacy. Bandura (2006) proposed that scales of self-efficacy must be tailored to particular domain of functioning being studied at a appropriate level of specificity. Specifically, self-efficacy items should accurately reflect the construct of perceived capability to be predicative and explanatory (Bandura, 2006; Bong, 2006). However, some researchers, Bandura included, have measured self-efficacy in a more general level rather than strictly in accordance with Bandura's promotion of domain specific (Smith, 1989; Bandura et al., 1996). In this study, a more general measure of self-efficacy is also included to investigate relation between domain specific and general self-efficacy.

Attitude

Ajzen and Madden (1986) have defined attitude as a learned, implicit anticipatory evaluation to certain objects. Eagly and Chaiken (1993) gave a more specific

and evaluative definition to attitude: a psychological tendency that is "expressed by evaluating a particular entity with some degree of favor or disfavor." Attitudes can be derived from three resources: affective information (e.g., feelings about an object), cognitive information (e.g., beliefs of an object) and behavioral information (e.g., experiences about an object) (Haddock & Maio, 2004). This study specifically concerned about the affective perspective of attitude. *Affect* is considered pivotal to be examined as a motivational construct. Affective attitude, theoretically overlapping with emotion and mood, serves as a significant predictor of students' motivation in behaviors for certain given goals (Orteny & Terner, 1990). Researchers focused on the affective perspective of attitude concept in order to examine how affective experience can be integrated into academic learning and influence academic effectiveness (Ehri, 2000; Linnenbrink, 2006).

Accordingly, the hypothesis about attitude under this study is that students' affective attitude for vocabulary learning comprises their emotion, feeling, and desire for vocabulary learning, and subsequently is likely to affect students' behaviors in vocabulary learning.

Vocabulary Learning

Vocabulary learning is an life-long endeavor. The prominence of vocabulary knowledge in literacy and academic achievement has rarely been in dispute in educational academia. Vocabulary is the building blocks of language, and language is the core in the process of attaining literacy competency (Graves, 2009). It is also a potent predictor of various indicators of verbal ability (Sternberg, 1987) and reading comprehension (Dale, 1965, Davis, 1968; Anderson & Freebody, 1985; Cunningham & Stanovich, 1997; Scarborough, 1998); and has been a critical factor in reading

comprehension across different languages and cultures (Thorndike, 1973). The importance of vocabulary is also demonstrated in that vocabulary knowledge can predict general intelligence (Dale, 1965). For example, Terman (1918) reported a high correlation of .91 between mental age and the vocabulary subscale test scores. Ward (1990) presented consistent finding in terms of high correlation between vocabulary and Intelligence Quotient.

Vocabulary learning is considerably complex due to the size of the potential lexicon and the multifaceted mature of vocabulary knowledge. An attempt to understand the motivational process of vocabulary learning must be established on a recognition of the complexity of vocabulary knowledge. This recognition helps better measure the self-efficacy and attitude in specific scales of vocabulary learning. Nagy and Scott (2000) identified five aspects of vocabulary complexity: incrementality—knowing a work is not a matter of all-or-nothing, but a incremental process based on small steps; multidimensionality—word knowledge consists of multiple aspects of word knowledge such as grammar, morphology, conceptual meaning, and frequency; polysemy—words often have multiple meanings; interrelatedness—words are not isolated but interrelated with one another, for example, how well a person understand the word *bread* depends on part of the understanding of other words such as *powder* and *wheat*; and heterogeneity—word knowledge depends on words' function, for instance, knowing the word *whether* is quite different from understanding the word *apple*.

Vocabulary learning is not an all-or-nothing matter, instead it involves multiple gradations and dimensions (Calfee & Drum, 1986). Simple explicit instructions of word meanings are far from enough for students to cover a rich quantity and high quality of

vocabulary knowledge. The dimensions of vocabulary learning concerned in current study include six categories: help-seeking, morphology, context, dictionary use, spelling and phonology.

Help-seeking. Seeking help from others is a commonly adaptive strategy to cope with challenges when encountering obstacles in a learning task (Karabenick, 1998; Skinner & Zimmer-Gembeck, 2007). Highly motivated students are more prone to seek help and engage in challenging learning tasks (Marchand & Skinner, 2007). Students' help-seeking for vocabulary learning, as an adaptive strategy, was examined in this study to probe its importance and relationship with motivational scales in vocabulary learning.

Morphology. The importance of morphology, or word parts, in vocabulary learning has long been studied and promoted (Dale, 1965; Nagy & Scott, 2000). Researchers acknowledge that vocabulary learning can occur through application of morphological analysis (Nagy &Scott, 2000). Meaning of words sometimes can be understood by examining the morphemes, meaningful word parts, such as prefixes, suffixes, word endings, and word roots (Baumann et al., 2002). Knowledge of morphology as a part of metalinguistic awareness also contributes to students' independent vocabulary learning (Baumann et al., 2003).

Morphological awareness is not only important in vocabulary learning, but also a pivotal part in measuring students' vocabulary achievement. Lubliner and Scott (2008) promoted using Word Bank to test students' morphological awareness, asking students to underline prefixes and suffixes, or fill in the missing words in reading context. Word Bank is a group of words, root words, or word parts from which students can choose and fill in missing words in reading texts. The Work Bank usually include more words than

test blanks. In the current study, I examine the motivation of morphological knowledge by measuring students' motivation to notice and manipulate word parts that contribute to word meanings.

Context. Contextual use refers to understanding word meanings by scrutinizing surrounding contexts, including preceding or succeeding phrases and sentences that provide syntactic and semantic cues (Sternberg, 1987; Baumann et al., 2002). Contextual analysis is significant in vocabulary learning in reading and listening (Nagy & Scott, 2000), especially when students are exposed to a considerable amount of written and oral contexts (Sternberg, 1987). Effective use of context has been shown to improve vocabulary learning efficiency and reading comprehension, and specifically students who use context to identify unknown words do better on various tests that are intended to assess vocabulary knowledge (Kennedy & Weener, 1974; Buikema & Graves, 1993; Kuhn & Stahl, 1998).

Phonology. Phonological awareness is crucial for vocabulary learning and reading especially in alphabetical languages with deep orthography, such as English (Ehri, 1998). Knowledge of letter-sound provides students with a link between sound and the letters and facilitate students to manipulate and learn new words (Treiman & Kessler, 2003).

Spelling. Spelling is measured in this study as a specified subcategory of students' motivation in vocabulary learning because spelling helps students to learn new vocabulary. Spelling influences conceptualizations of vocabulary learning (Ehri & Wilce, 1986) and metalinguistic awareness (Ehri, 1984); it impacts the detection of oral rhyming words; it also guarantees more precise memory of word meanings and clearer relationship

between a word form and its corresponding meanings by connecting graphemes and phonemes (Rosenthal & Ehri, 2008). When students encounter new vocabulary in reading, they should pay attention to the spellings to consolidate accurate word representation in memory (Ehri & Rosenthal, 2007), especially for English language learners (Hatch & Brown, 1995).

Incidental learning

The concept of incidental learning raises from the fact that students actually learn far more words than what they learn through direct vocabulary instruction in classroom. The average third graders are estimated to know a reading vocabulary of 10,000 (Nagy & Herman, 1987) while high school graduates are estimated to know about 40,000 words (Nagy & Herman, 1987) to 50,000 words (Graves, 2006), which need an average annual increase of about 3,000 or more words. Although direct vocabulary instruction is an important source for students' vocabulary development, no matter how hard we try to teach them directly, it only accounts for a few hundred words or words parts of the vocabulary students learn throughout a school year.

How could students improve their vocabulary so dramatically? Vocabulary learning recent researchers suggest that beyond direct vocabulary instruction, students also develop a substantial part of vocabulary knowledge through incidental learning when exposed to contexts of reading, listening, and oral conversation (Nagy, Herman & Anderson, 1985; Sternberg, 1987; Waring & Takaki, 2003). However, students who tend to be more motivated in vocabulary learning is more likely to gain vocabulary growth in incidental learning through using different vocabulary learning strategies, such as deciding word meanings from context clue and word parts, or morphologic information.

Determining word meaning based on partial clues as is the case in incidental learning, not only require them to know how to learn new vocabulary, but also requires their engagement and persistence, or in other words, motivation.

To sum up, in this study the motivational constructs of interest are self-efficacy and attitude. The vocabulary knowledge of specific aspects are morphology, context, help-seeking, phonology, spelling, and vocabulary.

Objective

This study aims to construct on instrument for measuring motivation for vocabulary learning establishing reliability and validity and opening the door to more studies on motivation for vocabulary learning in reading and listening.

The research questions are:

1. Whether the instrument constructed in this study—Motivation for Vocabulary Learning Questionnaire (MVLQ) is reliable and valid?
2. What are the differences motivation for vocabulary learning in two contextual situations: reading and listening?
3. What are the differences in motivation for vocabulary learning based on the learning goal (academic vs. leisure goals)?
4. whether students' motivation for vocabulary learning is related to their demographic background: English as first or second language, major (grouped into colleges), average GPA, and gender?

CHAPTER III

METHOD

Participants

Participants were 121 traditional undergraduate students (54.5% female, and 45.5% male) from a Midwestern university. They were distributed in 54 majors in mainly 3 colleges, with 34.7% from the College of Arts and Sciences, 27.3% from the College of Business Administration, 26.4% students from the College of Education and Human Science, 5.0% from the College of Engineering, 2.5% undecided major, and 6.7% from other colleges. Among these students, 57.0% were native English speakers, and the remaining 43.0 % were international students who learned English as a second language. These participants were with diverse ethnic backgrounds, with 50.3% white, 42.1% Asian, 3.3% African American, and 4.3% other ethnicities. For the 119 students (out of 121) who provided GPA, 28.9% students reported an GPA of 4.00, 24.0% students 3.67, 20.7% students 3.33, 14.0% students 3.00, 5.8% students 2.67, 1.7% students 2.33, and 3.3% students 2.00.

Procedure

To recruit participants, International Affairs, a university service organization providing support for international educational program and research, was asked to distribute recruitment flyers through emails. Flyers were also posted on bulletin boards across campus. In addition, each participant was paid five dollars for finishing the questionnaires.

Participants were asked to respond to two questionnaires administered in random order; before they began, participants were told that the questions had no right or wrong

answers and the purpose is to investigate students' motivation for vocabulary learning in reading and listening. In order to enhance the consistency and reliability of data and minimize response biases, participants were asked to read the instruction carefully before answering the two questionnaires. It took participants about 10 to 15 minutes to finish the questionnaires. The questionnaires did not include any identifying information of participants (i.e., student ID, name, and email address) but self report on demographic information of interest: gender, major, average GPA, first language, and ethnicity.

Measures

Two instruments were used: (1) the Motivation for Vocabulary Questionnaire (MVLQ), a Likert-type measurement format questionnaire developed in this study to assess motivation for vocabulary learning in reading and listening; and (2) the Motivation for Reading Questionnaire (MRQ) developed by Wigfield and Guthrie (1997), which was used to test the validity of MVLQ. Both questionnaires are presented in the Appendix.

The Motivation for Vocabulary Questionnaire (MVLQ). MVLQ was developed by the present author to measure students' motivation for vocabulary learning in reading and listening. To develop the MVLQ, the literature on motivation and the literature on vocabulary learning, vocabulary instruction, and vocabulary assessment were all reviewed to initiate motivational dimensions of interest. After literature review, two prominent motivational constructs were chosen in this early-stage of validating an instrument: self-efficacy (Bandura, 1985) and attitude (Ajzen & Madden, 1986).

On the MLVQ questionnaire, respondents were asked to report how they felt about learning new words in reading and listening. Participants responded to 34 items on a scale ranging from 1(*Never*) to 5 (*Always*). In each subscale, two, four or six items were

used to measure motivation as is presented in Table 1. The first 4 items measured *general self-efficacy* for vocabulary learning in reading (not presented in Table 1), followed by four scenarios with total 30 items, as is shown in Table 1: *reading for leisure* (11 items), *reading for academic goal* (11 items), *listening for academic goal* (4 items) and *listening for leisure* (4 items). These four different contextual situations, demonstrated on questionnaire as scenarios, were created to examine how motivation for vocabulary learning might vary under different learning situations, and the research interest is specifically between reading and listening, and between reading for academic goal and reading for leisure.

Table 1

Scales Measuring Motivation for Vocabulary Learning in Reading and Listening

Subscales		*Reading*		*Listening*		
		Academic	Leisure	Academic	Leisure	Total
Self-Efficacy	Morphology	1	1	1	1	4
	Context	1	1	1	1	4
	Dictionary use	1	1	1	1	4
	Help-seeking	1	1	1	1	4
	Spelling	1	1			2
	Phonology	1	1			2
Attitude	Morphology	1	1			2
	Dictionary use	1	1			2
	General	2	2			4
	Sharing	1	1			2
	Total	11	11	4	4	30

The first 4 items, not included in Table 1, measure *general self-efficacy* for vocabulary learning in reading (e.g., "When I am reading something, I can learn many new words."). Then, twenty-two items were used to measure students' *motivation for vocabulary learning in reading*. Under the context-scenario of *reading for leisure*, the first six items measured self-efficacy and the other five items measured attitude. For instance, the item measuring *self-efficacy for morphology* was "When I read a new word, I can break down the new word into smaller parts". The item measuring *attitude for dictionary* was " When I read a new word, I like using the dictionary to learn words". The item measuring *attitude for sharing* was "when I read a new word, I love telling others about new words that I have learned." Under the context-scenario of *reading for academic goal*, similar to that for leisure, the first six items measured self-efficacy and the other five attitude. After that, two other scenarios were presented and eight items were used to measure students' *motivation for vocabulary learning in listening.* Only self-efficacy for vocabulary learning was measured under both scenarios of listening for leisure and listening for academic goal. No items about attitude were involved in the scenarios in listening.

The Motivation for reading Questionnaire (MRQ). The MRQ by Wigfield and Guthrie (1995, 1997), a well-accepted model in terms of reliability and validity, was used to test the construct validity of MVLQ. Wigfield and Guthrie (1995) addressed 11 different dimensions of reading motivation in the MRQ to measure students' motivation for reading. Three motivational constructs are addressed in the 11 dimensions, self-efficacy (Bandura, 1977), intrinsic and extrinsic motivation (Deci &Ryan, 1985), and goals (Wentzel, 1996). The first two dimensions, *Self-efficacy* and *Challenge*, were

based the theory of self-efficacy. The second three dimensions, *Curiosity*, *Involvement*, and *Importance*, were based on the theory of intrinsic motivation. The following dimensions of *Recognition*, *Grades*, and *Competition* were based on extrinsic motivation and performance goals. The final two dimensions, *Social* and *Compliance*, concern social motivation for reading, which were related to goals in motivation theory. The 54 items in MRQ are judged all on a 1 to 4 scale, with 1 = very different from me, 2 = a little different from me, 3 = a little like me, and 4 = a lot like me.

Pilot Study

A pilot study was conducted to gather information to provide preliminary results to check reliability. Nine college students participated. Data were collected and the internal consistency reliability (Cronbach's alpha) was tested. Table 2 presents the Cronbach's alpha for the motivational dimension of self-efficacy. The result shows that the instrument had good reliability and feasibility. The α value, for all items are acceptable except for one item—*self-efficacy in context* with α value of .63. This might be because participants declared low self-efficacy in "keeping listening to figure out a new word" when listening for leisure. However, because of the small sample size, all pilot results should be viewed with caution.

Table 2

Cronbach's alpha for Self-efficacy for Measurement Items

Self-efficacy	General	Morphology	Context	Dictionary use	Help-seeking
Cronbach's alpha	.81	.91	.63	.80	.80
Item N	4	4	4	4	4

CHAPTER IV

RESULTS

The following approaches to data analysis provide a conceptual framework for interpreting the results in the next section, which is organized mainly corresponding to the three research questions: (1) Whether the instrument constructed in this study, the Motivation for Vocabulary Learning Questionnaire (MVLQ), is reliable and valid; (2) What are the differences in motivation for vocabulary learning in two contextual situations: reading and listening; (3) What are the differences in motivation for vocabulary learning based on the learning goal (academic vs. leisure goals); (4) whether students' motivation for vocabulary learning is related to their demographic background: English as first or second language, major (grouped into colleges), average GPA, and gender?

To test reliabilities and validity of MVLQ for question one, descriptive statistics, internal consistency reliabilities (Cronbach's alpha), correlations between results from MVLQ and MRQ, and correlation after corrections for attenuation were applied and examined. Motivation for Reading Questionnaire (MRQ) by Wigfield and Guthrie (1997), a well-accepted model in terms of reliability and validity, was used to test the construct validity of the newly developed instrument—Motivation for Vocabulary Learning Questionnaire (MVLQ). Product Moment Correlation Matrix was used and the convergent and discriminant validity of this study were particularly investigated. In this study, the overall internal consistency reliability is .71, where both MVLQ and MRQ are considered.

Reliability

Reliability of the MVLQ. Internal consistency reliability was used to test the consistency of results across items within items, within scales, within motivational constructs, and the overall consistency of the MVLQ. Means and standard deviations for the 10 scales specified in the four contextual situations in MVLQ are presented in Table 3. Each scale score was based on item means, so comparisons could be made regardless of the number of items in a subscale. Table 3 shows that all means were larger than 3 in all four contextual situations that are reading for academic goal, reading for leisure, listening for academic goal and listening for leisure, indicating that these college students had reported high self-efficacy and attitude for vocabulary learning.

Table 3

Descriptive Statistics under Four Contextual Situations in MVLQ

Outcome Variables	Reading				Listening			
	Academic		Leisure		Academic		Leisure	
	M	*SD*	M	*SD*	M	*SD*	M	*SD*
Self-efficacy								
Morphology	3.50	0.84	3.64	0.97	3.01	0.85	3.01	0.93
Context	3.80	0.88	4.00	0.87	3.71	0.86	3.74	0.85
Dictionary use	3.90	1.00	4.08	0.95	3.22	1.19	3.05	1.15
Help-seeking	3.69	0.96	3.42	1.07	3.50	1.03	3.38	0.98
Spelling	3.21	0.90	3.08	0.92				
Phonology	3.50	1.01	3.55	1.07				
Attitude								
General	3.89	0.85	3.98	0.82				
Morphology	3.29	0.92	3.19	1.07				
Dictionary use	3.47	1.09	3.38	1.21				
Sharing	3.08	1.19	3.09	1.16				

Note. N = 121.

Considering motivation for vocabulary learning in reading for academic goal, students reported high self-efficacy in Context (M = 3.80, *SD* =.88), Dictionary use (M = 3.90, *SD* = 1.00), and General Attitude (M = 3.89, *SD* = .85), while a little lower self-

efficacy in Spelling (M = 3.08, *SD* = .92) and Attitude for Sharing (M = 3.08, *SD* = 1.19). By and large, all the means of subscales fall into the range between 3 and 4, and the standard deviations are all roughly around 1. It suggests that the variances across the subscales is approximately equal to each other.

In reading for leisure, students had similar reports with that in reading for academic goal, implying that students claimed similar motivation for vocabulary learning both in reading for academic and reading for leisure. However, in self-efficacy for vocabulary learning under the context of listening for academic goal, the means were generally lower than that in reading for all subscales. It means that students reported higher self-efficacy for vocabulary learning in the reading than in listening for academic goal. In the context-scenarios of listening for academic and leisure goals, exception was that self-efficacy for context was fairly high for academic goal (M = 3.71, *SD* = .86) and for leisure goal (M = 3.74, *SD* = .85), suggesting that students reported they were more able to apply context clue to decide and comprehend new word meanings in listening, especially for leisure purpose.

Table 4 presented the means, standard deviation, and reliabilities for the 10 motivational scales without specification of scenarios or contextual situations. For means shown in Table 4, the sum of all scores on each item on a scale was first calculated, then the means were computed. Table 4 demonstrates that the means are all above 3 on a scale ranging from 1 to 5 for all scales.

Internal consistency reliabilities (Cronbach's alpha) for the scales were computed to examine the reliabilities. From Table 4, the reliabilities ranges from .75 (*self-efficacy for context*) to .91 (*attitude for sharing*), which indicates sufficient internal consistency

according to the guidance in the interpretation of the reliability coefficient provided by Nunnally and Brnstein (1994) that a value of .70 is sufficient for early stages of research.

Table 4

Descriptive Statistics and Reliabilities for Motivational Dimensions in MVLQ

Scales	M	*SD*	N of Items	Cronbach's Alpha
Self-efficacy				
General	3.29	0.70	4	0.78
Morphology	3.81	0.65	4	0.78
Context	3.56	0.84	4	0.75
Dictionary use	3.50	0.82	4	0.79
Help-seeking	3.14	0.84	4	0.83
Spelling	3.53	0.96	2	0.82
Phonology			2	0.84
Attitude				
General	3.93	0.79	4	0.82
Morphology	3.24	0.92	2	0.83
Dictionary use	3.43	1.09	2	0.88
Sharing	3.09	1.12	2	0.91

Note. N = 121.

Reliability of the MRQ. The means, standard deviations and reliabilities for the MRQ are presented in Table 5. Using the same approach I used for the MVLQ, I summed scores on each item on a scale and then computed the means.

In Table 5, most scales presented reasonable internal consistency, while α value for *Compliance* (α = .30) was low, suggesting that items comprising this scale were not satisfyingly consistent. When looking at the item-total correlations to see whether different items contributed to the corresponding scale, all sub-scales showed moderately good correlations with the scale score except the scale of *Compliance*. The first two items have Corrected Item-Total Correlation of -.16 and .09. Further inquiry into the correlation demonstrated that the first two items were significantly correlated with each

other, while negatively correlated with other three items. The other three items highly correlated with each other with Cronbach's α =.76. It might be due to the fact that other three items were more explicitly related to complying to certain expectation so that they measure more directly students' compliance.

Table 5

Descriptive statistics and Reliabilities for Motivational Dimensions in MRQ

Scales	Mean	Std. Deviation	N of Items	Cronbach's Alpha
Self-efficacy	2.76	0.67	4	0.77
Challenge	2.98	0.57	5	0.73
Work Avoidance	2.40	0.65	4	0.57
Curiosity	3.19	0.52	6	0.71
Involvement	2.99	0.67	6	0.76
Importance	2.90	0.87	2	0.80
Recognition	2.70	0.67	5	0.74
Grades	2.67	0.69	4	0.69
Competition	2.66	0.67	6	0.80
Social	2.20	0.59	7	0.74
Compliance	2.63	0.48	5	0.30

Note. N = 121.

Validity

Validity of the MVLQ. To test the validity of the MVLQ, the correlations among the 11 scales within MVLQ were examined (Table 6). Then, correlations between MVLQ and MRQ were conducted to investigate the convergent and discriminant validity of MVLQ with results presented in Table 7.

Table 6 demonstrated that almost all correlations were positive and significant except the correlation between *Self-efficacy for Context* and *Attitude for Dictionary Use* (r = -.004), suggesting almost no relationship. Another low correlation was between *Self-efficacy for Phonology* and *Attitude for Dictionary* (r = .17). Table 6 also showed that

General Self-efficacy and *General Attitude* had fairly strong correlations with almost all other motivational scales except that *General Self-efficacy* was not highly correlated with *Self-efficacy for Dictionary* (r = .22) and *Attitude for Dictionary* (r = .21).

Table 6

Correlations of the Motivational Scales in MVLQ

Scales	1	2	3	4	5	6	7	8	9	10
Self-efficacy										
1. General										
2. Morphology	.54**									
3. Context	.54**	.60**								
4. Dictionary use	.22*	.37**	.24**							
5. Help-Seeking	.31**	.50**	.42**	.55**						
6. Spelling	.36**	.73**	.41**	.32**	.44**					
7. Phonology	.45**	.61**	.43**	.26**	.40**	.46**				
Attitude										
8. General	.46**	.46**	.50**	.40**	.50**	.34**	.35**			
9. Morphology	.41**	.63**	.40**	.31**	.41**	.62**	.41**	.50**		
10. Dictionary use	.21*	.20*	-.004	.65**	.36**	.31**	.17	.40**	.43**	
11. Sharing	.25**	.33**	.27**	.26**	.39**	.22*	.31**	.45**	.34**	.21*

Note. **. Significant at the 0.01 level. *. Significant at the 0.05 level.

The correlations within the motivation for vocabulary learning in Morphology, Spelling and Phonology were comparatively higher than other correlations. For example, the table showed high correlations including *Self-efficacy for Morphology* and *Self-efficacy for Spelling* (r = .73), *Self-efficacy for Morphology* and *Self-efficacy for Phonology* (r = .61), *Self-efficacy for Spelling* and *Attitude for Morphology* (r = .62), and *Self-efficacy for Spelling* and *Self-efficacy for Phonology* (r = .46), indicating that these constructs probably might be more inherently related to each other. In addition, correlations were consistently good between Morphology and other scales, with only one exception which is between morphology and Dictionary use.

Attention needs to be paid to the fact that *Self-efficacy for Dictionary Use* was moderately correlated with *Self-efficacy for Help-Seeking* (r = .55), and *Attitude for Dictionary use* (r = .65), while self-efficacy and attitude for dictionary use did not have good relation with any other subscales. The implication was that students' motivation for dictionary use was related with their motivation for referring to other people for help. However, *Attitude for Sharing* did not correlate with any other scales, indicating whether students liked to tell others about new words that they had learned was not closely related with other motivational scales, such as morphology and spelling.

Table 7 presented the reliability of both instruments, raw correlations, and correlations after corrections for attenuation between MVLQ and MRQ. To attain validity for MVLQ, evidences for both convergent validity and discriminant validity should be established simultaneously. That is, correlations should be consistently the highest within each instrument (marked in yellow). Correlations are expected to be high between the same motivational constructs in MVLQ and MRQ: MVLQ Self-efficacy and MRQ Self-efficacy, MVLQ Attitude and MRQ Attitude, MVLQ Total and MRQ Total (in green), than that of different motivational constructs and different instruments (in orange).

Table 7 showed the data analysis results. Both instruments had high correlations within instrument itself. Within the MVLQ, the correlation was .96 between MVLQ Total and MVLQ Self-efficacy, .85 between MVLQ Total and Attitude, and .68 between MVLQ Self-efficacy and MVLQ Attitude. Within MRQ, the correlation was .77 for MRQ Total and MRQ Self-efficacy, .65 for MRQ Total and MRQ Attitude, and .61 for MRQ Self-efficacy and MRQ Attitude.

Table 7

Reliability, Raw Correlations, Correlations after corrections for Attenuation between MVLQ and MRQ

	1	2	3	4	5	6
1. MVLQ Total	.93	.96**	.85**	.41**	.49**	.40**
2. MVLQ Self-efficacy	—	.91	.68**	.36**	.47**	.37**
3. MVLQ Attitude	—	—	.86	.44**	.40**	.34**
4. MRQ Total	.45	.40	.49	.91	.77**	.65**
5. MRQ Self-efficacy	.58	.57	.49	—	.77	.61**
6. MRQ Attitude	.49	.47	.43	—	—	.71

Note. **. Significant at the 0.01 level. *. Significant at the 0.05 level.
Above the Diagonal are raw correlations; below the diagonal are correlations after corrections for attenuation; and on the diagonal are the reliabilities.

Table 7 also gave correlations between the two instruments, which was relatively lower than that within each instrument. The correlation between MVLQ Total and MRQ Total was .41, and .45 after corrections of attenuation. The correlation between MVLQ Self-efficacy and MRQ Self-efficacy was .47, and .57 after corrections of attenuation. The correlation between MVLQ Attitude and MRQ Attitude was .34, and .43 after corrections of attenuation.

Differences of self-efficacy for vocabulary learning between reading and listening in MVLQ

In order to examine if differences existed between self-efficacy for vocabulary learning under two contextual situations, namely reading and listening, one paired samples t-tests were conducted to compare the overall self-efficacy for vocabulary learning (*general self-efficacy*), and four other paired samples t-tests was conducted to compare the self-efficacy under each subscale for vocabulary learning: morphology, context clue, dictionary use, and help-seeking. Scale scores of self-efficacy for

vocabulary learning and other subscale scores were based on mean scores. Before conducting any comparisons, normality and homogeneity of the variables were examined and no violations of assumptions were found. Basic descriptive statistics information and the results of the t-test were presented in Table 8 and Figure 1.

There was a significant difference based on the .05 significant level, and a medium effect size between self-efficacy for vocabulary learning under the contextual situations of reading (M = 3.62, *SD* = .59) and listening (M = 3.33, *SD* = .69), t (118) = 6.29, $p < .001$, Cohen's d = .45, with higher self-efficacy for vocabulary learning in reading.

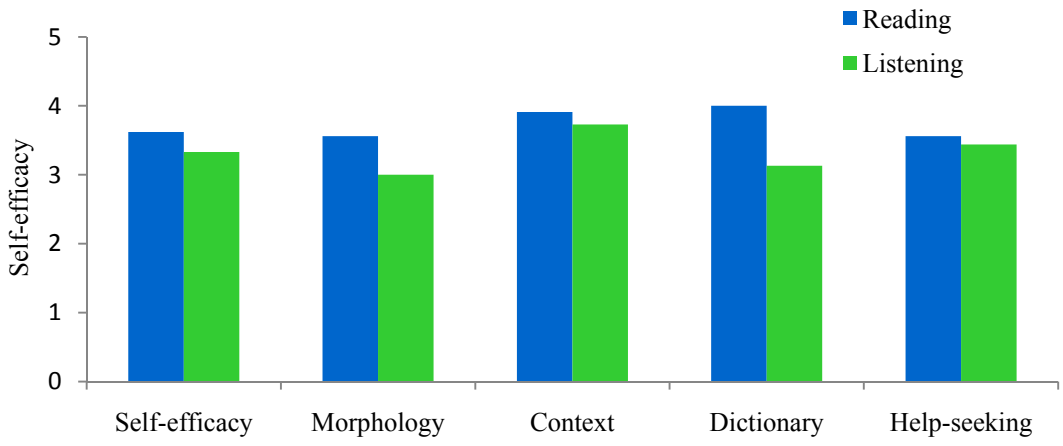
Table 8

Self-Efficacy Differences for Vocabulary Learning in Two Contextual Situations:Reading and Listening

	Reading		Listening					
Scale /Subscale	M	*SD*	M	*SD*	*df*	*t*	*p*	Cohen's *d*
Scale								
Self-efficacy	3.62	.59	3.33	.69	118	6.29	.000	.45
Subscales								
Morphology	3.56	.80	3.00	.81	121	8.38	.000	.70
Context	3.91	.73	3.73	.78	121	2.49	.014	.24
Dictionary use	4.00	.85	3.13	1.06	120	10.11	.000	.91
Help-seeking	3.56	.92	3.44	.90	121	1.70	.093	.13

Figure 1

Self-Efficacy Differences for Vocabulary Learning in Two Contextual Situations Reading and Listening



Looking at the specific four subscales that composed the self-efficacy scale, the differences were significant between self-efficacy for morphology in reading (M= 3.56, *SD* =.80) and listening (M =3.00, *SD* = .81), $t = 8.38$, $p < .001$, Cohen's $d = .70$, with a large effect size; significant between self-efficacy for context in reading (M = 3.91, *SD* = .73) and listening (M = 3.73, *SD* = .78), $t = 2.49$, $p = .014$, Cohen's $d = .24$, with a medium effect size; and significant between self-efficacy for dictionary use in reading (M = 4.00, *SD* = .85) and listening (M = 3.13, *SD* = 1.06), $t = 10.11$, $p < .001$, Cohen's $d = .91$, with a large effect size. Only the difference in *Self-efficacy for Help-Seeking* between reading and listening on the scale was not significant. In addition, whether significant or not, students' reports on all motivational scales for vocabulary learning in reading were higher than that in listening.

Differences of motivation for vocabulary learning in Reading for Academic and Reading for Leisure in MVLQ

To test the differences of motivation for vocabulary learning in reading for academic and reading for leisure, I examined the data for the assumptions of normality and homogeneity. After that, means were compared using paired samples t-tests. Analysis

results in Table 9 showed that there were no statistically significant differences between the motivation for vocabulary learning in reading for leisure and academic, indicating that students on average had reported similar attitude and self-efficacy toward vocabulary learning both in reading for leisure and reading for academic.

Table 9

Motivational Differences for Vocabulary Learning between Reading for Academics and Reading for Leisure

	Reading for Leisure		Reading for Academics					
Scales	M	*SD*	M	*SD*	*df*	*t*	*p*	Cohen's *d*
Self-efficacy	3.63	0.66	3.61	0.59	119	0.63	0.529	0.03
Attitude	3.53	0.73	3.53	0.72	119	0.10	0.922	0.00

Differences of motivation for vocabulary learning in relation to first language, college, average GPA, and gender

One way analysis of variance was conducted to examine whether differences existed in motivation for vocabulary learning in relation to first language, majors, average GPA and genders. The four dependent variables in each analysis were general self-efficacy, Self-efficacy for Vocabulary in reading, Self-efficacy for Vocabulary learning in listening, and attitude for vocabulary learning in reading. Before conducting any further analysis, a check for interaction between independent variables was carried out by using multiple regression analysis and no violations of assumptions of normality, homogeneity and linearity were found.

First Language. The analysis revealed statistically significant differences on all self-efficacy scales between the two groups regarding whether English was participants' first language (see Table 10): General Self-efficacy, F (1, 119) = 38.60, $p < .001$; Self-

efficacy for Vocabulary Learning in Reading, F (1, 118) = 22.83, p < .001; and Self-efficacy for Vocabulary Learning in Listening, F (1, 118) = 5.53, p = .02. Native English speakers had significantly higher General Self-efficacy for Vocabulary Learning (M = 4.21, SD = .59) than English language learners (M =3.53, SD = .60), significantly higher Self-efficacy for Vocabulary Learning in Reading (M = 3.82, SD = .55) than English language learners (M = 3.35, SD = .52), and higher Self-efficacy for Vocabulary Learning in Listening (M =3.45, SD = .69) than English language learners (M= 3.15, SD = .67).

Table 10

Means, Standard Deviations, and One-Way Analyses of Variance for the Effects of First Language on Motivation for Vocabulary Learning

	English		Non-English			
Scale/Subscales	*M*	*SD*	*M*	*SD*	Cohen's *d*	*F*
General Self-efficacy	4.21	.59	3.53	.60	1.14	38.60**
Self-efficacy in Reading	3.82	.55	3.35	.52	.89	22.83**
Self-efficacy in Listening	3.45	.69	3.15	.67	.44	5.53*
Attitude in Reading	3.58	.75	3.44	.71	.19	1.11
Self-efficacy for Morphology	3.49	.67	3.03	.65	.70	14.27**
Self-efficacy for Context	4.00	.60	3.57	.64	.69	13.89**
Self-efficacy for Dictionary use	3.62	.90	3.48	.76	.17	.84
Self-efficacy for Help-seeking	3.69	.76	3.24	.84	.58	9.76**
Self-efficacy for Spelling	3.26	.85	2.98	.80	.34	3.43
Self-efficacy for Phonology	3.82	.85	3.14	.98	.75	16.36**

Note. * p< .05; ** p<.001. L1=First Language. N = 69 for English Native Speakers, and N = 52 for English Language Learners.

However, no significant difference was observed in attitude for vocabulary learning between English Native speakers and English language learners. Further look into the self-efficacy for morphology, context, dictionary use, help-seeking, spelling and phonology, analysis suggested that English native speakers were significantly higher than non-English native speakers in self-efficacy for Morphology, F (1, 121) = 14.27, p <

.001; in self-efficacy for Context, F (1, 121) = 13.89, $p < .001$;in self-efficacy for Help-seeking, F (1, 121) = 9.76, $p = .002$; and in self-efficacy for Phonology, F (1, 121) = 16.36, $p < .001$.

Colleges. Students from different majors were grouped into colleges and the differences were examined based on the factor of college using one way analysis of variance (ANOVA). The four major colleges of interest were the College of Business Administration (CBA), the College of Arts and Sciences (ASC), the College of Education and Human Science (CEHS), and the College of Engineering (CE). The motivation scores across colleges with different majors were presented in Table 11.

Table 11

Means and Standard Deviations of Motivational Scales by Colleges

	CBA (n = 33)		ASC (n = 42)		CEHS (n = 32)		CE (n = 6)	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
General Self-efficacy	3.49	.64	3.98	.62	4.30	.50	3.50	1.01
Self-efficacy in Reading	3.40	.56	3.57	.54	3.90	.56	3.57	.64
Self-efficacy in Listening	3.16	.75	3.16	.70	3.66	.56	3.19	.60
Attitude in Reading	3.47	.68	3.38	.82	3.76	.59	3.60	.25

Note. CAB: College of Business Administration. ASC: College of Arts and Sciences. CEHS: College of Education and Human Science. CE: College of Engineering.

Based on the significant level of .05, the omnibus F-test from the ANOVA indicated statistically significant differences among the different means displayed in Table 11 for General Self-efficacy, $F(3, 109) = 10.18$, $p < .001$, for Self-efficacy for vocabulary learning in reading, $F(3, 108) = 4.57$, $p = .005$, for self-efficacy for vocabulary learning in listening, $F(3, 108)= 1.94$, $p = .008$. However, no significant difference was observed among different means for attitude for vocabulary learning in reading.

To further examine whether differences lay among different college groups, pairwise Tukey HSD follow-up tests were conducted and results were presented in Table 12. Mean Plots of motivation for vocabulary learning was demonstrated in Figure 2. Analysis indicated that students in the College of Business Administration (CBA) had reported significantly lower *General Self-efficacy* than students in the College of Arts and Sciences (ASC) ($p = .006$), and students in the College of Education and Human Sciences (CEHS) ($p < .001$). CBA students also reported significantly lower *Self-efficacy* in vocabulary learning *in reading* ($p = .003$) and listening ($p = .018$) than students from CEHS. Students from the College of Engineering reported significantly lower *General Self-efficacy* than students from College of Education and Human Science ($p = .024$). Students from the College of Education and Human Science reported significantly higher Self-efficacy in vocabulary learning in listening than students from the College of Arts and Sciences ($p = .011$). No statistically significant differences were observed between other comparison groups even though students from College of Education and Human Sciences reported higher scores in every scale compared with other students.

Table 12

Mean Differences, Standard Error, and Confidence Intervals for Each Pairwise Comparisons by College

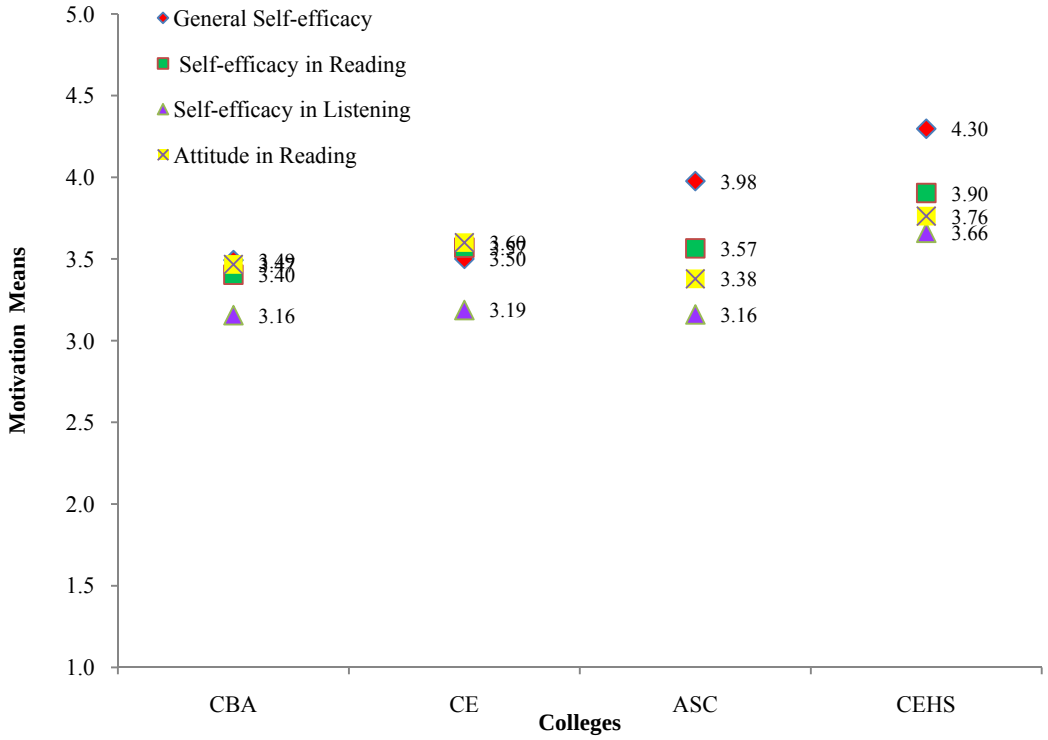
	General Self-efficacy				Self-efficacy in Reading				Self-efficacy in Listening			
			95% CI				95% CI				95% CI	
	MD	*SD*	*LL*	*UL*	*MD*	*SD*	*LL*	*UL*	*MD*	*SD*	*LL*	*UL*
CBA vs. ASC	-.48*	.14	-.90	-.07	-.16	.13	-.54	.22	.00	.16	-.46	.45
CEHS vs. ASC	.32	.14	-.10	.74	.34	.13	-.05	.72	.50*	.16	.05	.95

CE vs. ASC	-.48	.27	-1.25	.30	.00	.25	-.71	.72	.03	.29	-.82	.87
CBA vs. CEHS	-.80*	.15	-1.24	-.36	-.50*	.14	-.90	-.09	-.50*	.16	-.00	-.02
CE vs. CEHS	-.80*	.27	-1.60	-.01	-.33	.25	-1.06	.39	-.47	.30	-1.33	.39
CBA vs. CE	-.01	.27	-.80	.78	-.17	.25	-.89	.56	-.03	.30	-.89	.83

Note. * Significant at .05 level. ASC: College of Arts and Sciences. CAB: College of Business Administration. CEHS: College of Education and Human Science. CE: College of Engineering. *MD*: Mean Difference.

Figure 2

Means Plots of Motivation for Vocabulary Learning by Colleges



Average GPA . Average GPA reported by students were grouped into three groups, A (ranging from 3.34 to 4.00), B (ranging from 2.34 to 3.33), and C or below (ranging from 0 to 2.33). One way analysis of variance was used to examine whether differences existed among GPA groups. Analysis results were presented in Table 13 and Figure 3.

Omnibus F test for GPA was not significant, indicating that students with different GPA did not report different motivation for vocabulary learning. Follow-up tests also didn't show any significant differences either.

However, in Figure 3, with the increase of GPA, students reported increase in general self-efficacy, self-efficacy in reading and attitude in reading, except self-efficacy in listening, which implied that students with higher GPA had lower self-efficacy for vocabulary learning in listening than students with lower GPA.

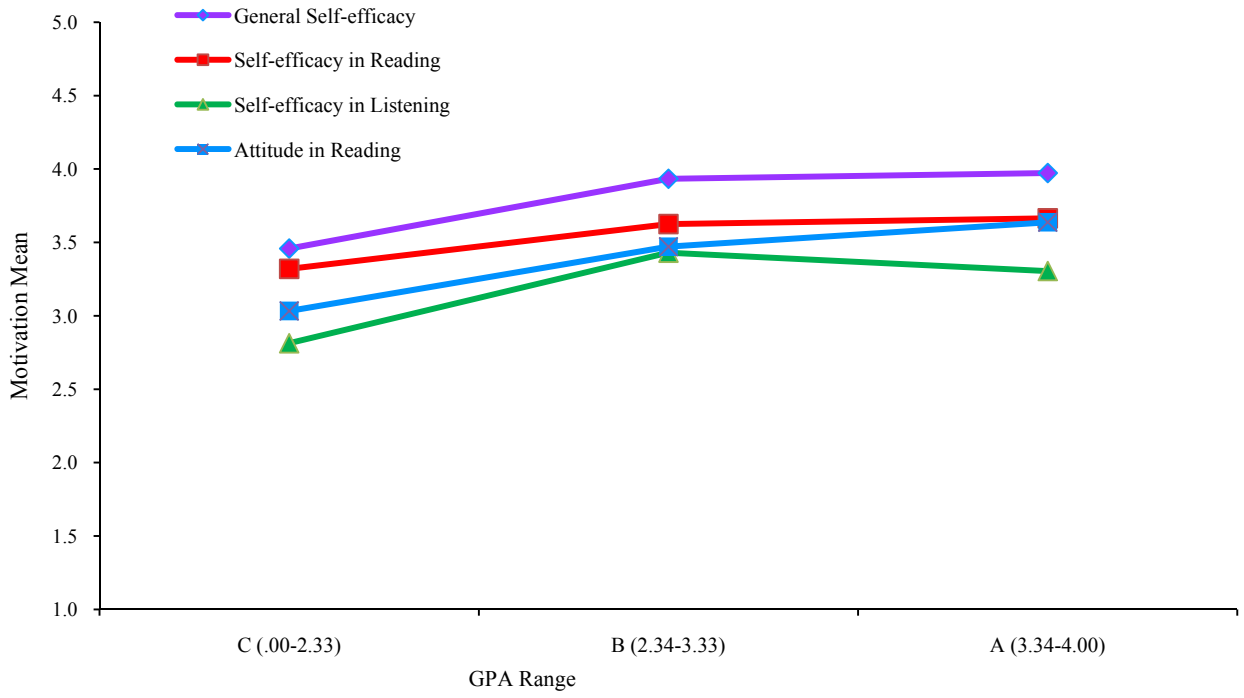
Table 13

Means and Standard Deviations of Motivational Scales by Average GPA

	Average GPA					
	.00-2.33		2.34-3.33		3.34-4.00	
Variables	*M*	*SD*	*M*	*SD*	*M*	*SD*
General Self-efficacy	3.46	1.07	3.93	0.58	3.97	0.70
Self-efficacy in Reading	3.32	0.48	3.63	0.55	3.66	0.61
Self-efficacy in Listening	2.81	0.65	3.43	0.63	3.30	0.73
Attitude in Reading	3.03	0.92	3.47	0.61	3.64	0.73

Figure 3

Means of Motivation for Vocabulary Learning by Average GPA



Gender. Table14 presented the means and standard deviations of motivational scales for both male and female students. None of the results in motivation for vocabulary learning were significantly different between the male and female groups.

Table 14

Means and Standard Deviations for Motivation for Vocabulary Learning by Genders

	Male		Female	
Variables	*M*	*SD*	*M*	*SD*
General Self-efficacy	3.86	0.70	3.97	0.67
Self-efficacy in Reading	3.56	0.53	3.67	0.62
Self-efficacy in Listening	3.31	0.65	3.33	0.73
Attitude in Reading	3.51	0.72	3.54	0.69

Discussion and Conclusion

The study was motivated by a need to establish and measure students' motivation for vocabulary learning in reading and listening with reliability and validity. Vocabulary learning is complex and life-long task (Stahl & Nagy, 2006) and students needs to be motivated in vocabulary learning in order to accomplish the formidable goal; for example, average twelfth graders need to know about 50,000 word families and to reach that students need to increase their vocabulary by 3000 to 4000 new words each year (Graves, 2005). For those linguistically disadvantaged students, they have about half size of those linguistically advantaged students (Biemiller & Slonim, 2001) and these linguistically disadvantaged students especially are expected to be motivated to learn new words.

The goal of this study was to construct and validate an instrument to measure students' motivation for vocabulary learning with two specific motivational constructs of interests: self-efficacy and attitude, where both self-efficacy beliefs (Pajares, 1996) and attitude (Albarracin, Johnson & Zanna, 2005) have strong influence on academic achievement and reading accomplishment. To achieve this goal, four questions were first discussed and examined. The first question was whether the Motivational for Vocabulary Learning Questionnaire was reliable and valid. The second question was whether difference of motivation for vocabulary learning existed between the two contextual situations of reading and listening. The third question was whether difference of motivation for vocabulary learning existed between two reading goals, reading for academic goal and reading for leisure. The forth question was whether demographic information of interest influenced students motivation for vocabulary learning. The

demographic information of interest were first language, colleges, gender, average GPA, and gender.

To answer these questions, first, the internal consistency reliabilities and validity of MVLQ were tested. Then, differences in motivation for vocabulary learning was examined using paired sample t-test. After that one way analysis of variance was used to examine the influence of demographic information on motivation for vocabulary learning.

Reliability and validity of Motivation for Vocabulary Learning Questionnaire (MVLQ). MVLQ had fairly good internal consistency reliabilities in accordance with the guidance of reliability interpretation provided by Nunnally and Burnstein (1994) where the Cronbach's α ranged from .75 to .91. The reliabilities of Motivation for Reading Questionnaire were tested and presented acceptable reliabilities. The correlations were investigated within each instruments and between the two instruments to examine the validity of MVLQ. Scales correlated highly with each other within each instruments while lower between the two instruments. It showed good convergent and discriminant validity for MVLQ.

With respect to the correlations between MVLQ and MRQ, the correlation between *MVLQ Total* and *MRQ Total*, between MVLQ self-efficacy and MRQ self-efficacy, between MVLQ attitude and MRQ attitude were all significant. It indicated that motivation for vocabulary learning in MVLQ and motivation for reading in MRQ was correlated but not high enough to be considered the same construct. Or students who are motivated for reading are not necessarily motivated in vocabulary learning.

Difference between motivation for vocabulary learning in reading and listening. As predicted, statistically significant differences were found between students' motivation for vocabulary learning in reading and listening. Students reported significantly higher motivation for vocabulary learning in reading than that in listening, especially in *self-efficacy for morphology* and *self-efficacy for dictionary use*. Self-efficacy for morphology in reading was higher than that in listening with an medium effect size, Cohen's $d = .70$. It implied that students reported they could examine the morphemes or the meaningful word parts in new words to understand word meanings better in reading than in listening. In accordance with the suggestion by Bandura (1986) that the scales of self-efficacy must be tailored to specific and appropriate level, self-efficacy for vocabulary learning in reading was significantly different from that in reading. Self-efficacy for reference to *dictionary use* was higher in reading than listening with a large effect size, Cohen's $d = .91$. It might be because students encounter more vocabulary in reading, or they are able to refer to the dictionary where they know the spellings of words that are presented in reading context, while it is harder to know the spellings through listening. In addition, students reported significant higher self-efficacy for context in reading even if it was with a small effect size, Cohen's $d = .24$, indicating students could learn vocabulary meanings from context clues both in reading and listening. However, no significant difference was found in self-efficacy in help-seeking, suggesting students could seek for help for vocabulary meanings when reading and listening.

Difference between motivation for vocabulary learning in reading for academic goal and in reading for leisure. Contrary to hypothesis at the beginning of this study, no

differences were found between students' motivation for vocabulary learning in reading for academic goal and reading for leisure. One potential reason might be that the sample was composed of undergraduate students who were comparatively successful in academic accomplishment. The participants on average had reported high scores on the questionnaire in motivation for vocabulary both in reading for academic goal and for leisure. It might be different if the sample were elementary or secondary students where students were still learning strategies to vocabulary learning and students who were with quite different linguistic metacognitive awareness.

Group differences. Analyses of first languages, college, average GPA, and gender differences in students' vocabulary learning motivation revealed differences related to first language and colleges, but not to average GPA and gender. The findings showed, first, that between the two language groups (English native speakers and non-English native speakers), English native speakers reported significant higher General Self-efficacy for vocabulary learning, higher self-efficacy for vocabulary learning in reading and in listening, and non-significant higher attitude in reading. Further look at the dimension of self-efficacy, English native speakers reported higher self-efficacy in morphology, context, phonology, and help-seeking, contrary to the prediction before the study that non-English native speakers might have high motivation for vocabulary learning especially in morphology. The reason might be that English native speakers have far more chances to encounter both written and oral language contexts that is likely to enhance their self-efficacy for vocabulary learning (Dickinson & Tabors, 2001). This may point to the fact that native speakers can gain much more from incidental learning in reading, while language learners need more explicit modes of instructions. In addition,

vocabulary learning is characteristic of interrelatedness and multidimensionality (Nagy & Scott, 2000). It might tell why English native speakers had across the board reported higher motivation for vocabulary learning for approximately all subscales.

Students from different colleges with different majors had reported significantly different in General Self-efficacy for vocabulary learning, self-efficacy for vocabulary learning in reading, and in listening. However, no significant difference was found in students' attitude for vocabulary learning in reading. Students from the College of Education and Human Science (CEHS) had reported significantly higher general self-efficacy, self-efficacy in reading and self-efficacy in listening than students from the College of Business Administration (CBA), and higher self-efficacy in listening than students from the College of Arts and Sciences (ASC), and higher general self-efficacy than students from the College of Engineering (CE). Students from College of Education and Human Science(CEHS) had higher self-efficacy in vocabulary learning than students from other colleges. The difference might be explained by students' diverse academic majors. Examining the major differences in these colleges, CEHS students focuses much more on languages while students from students CBA and CE focus more on science and math.

The average GPA and gender turned out not being significant factors in differentiating students' motivation for vocabulary learning. However, there may be a trend of increase of average GPA, students' general self-efficacy, self-efficacy in reading and attitude in reading correspondingly increase.

The results of this study provided insight into the motivational condition for vocabulary learning for college students. In light of the finding that motivation for

vocabulary learning is itself a complex structure that is not the same as motivation for reading. Motivation for vocabulary learning is not an all-or-nothing matter but decided by multiple determinations, just as vocabulary learning is a complex process.

Limitations

In interpreting and discussing the current study, three potential methodological limitations were recognized. One was that the current study only included college students from a Midwestern research university. Even though these students were academically successful and were likely to provide more accurate information about their motivation for vocabulary learning. It is desirable that students from a different university with different demographic background could participate this study, or elementary and secondary students could participate this study.

To state more confidently whether the Motivation for Vocabulary Learning Questionnaire is reliable and valid or not, more complex and delicate analysis might need to be used, for example, factor analysis and generelizability study might be able to shed more light on the internal and external validity of the instrument.

Even though motivation for vocabulary learning of both English native speakers and English language learners were compared, English native speakers' high metalinguistic awareness might not be as high as native speakers because native speakers have really good understanding of English. However, English language learners' understanding of their own languages should be much more comprehensive than that of English. This study focused on English vocabulary learning and it is likely to help explain and improve both English language learners and English native speakers

motivation for vocabulary learning, rather than relation between first language and English language learners' motivation for vocabulary learning in English.

References

Ajzen, I. (2005). *Attitudes, Personality, and Behavior* (2nd. Edition). Milton-Keynes, England: Open University Press / McGraw- Hill.

Ajzen, I. & Madden, T. J. (1986). Prediction of goal-directed behavior: attitudes, intentions and perceived behavioral control. *Journal of experimental social psychology*, 22, 453-474.

Albarracín, D., Johnson, B.T., & Zanna, M.P. (2005). *The handbook of attitudes*. Mahwah, NJ: Erlbaum.

Anderson, R.C., & Freebody, P. (1985). Vocabulary knowledge. In H. Singer & R.B. Ruddell (Eds.), *Theoretical models and processes of reading* (3rd ed., pp. 343–371). Newark, DE: International Reading Association.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychology Review*, 84, 191-215.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Bandura, A. (2006). Guide for creating self-efficacy scales. In F. Pajares & T. Urdan (Eds.), Self-efficacy beliefs in adolescents (pp. 307-338). Greenwich, CT: Information Age.

Bandura, A., Barbaranelli, C, Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development, 67,* 1206-1222.

Baumann, J.F., Edwards, E.C., Boland E., Olejnik, S., & Kame'enui, E.J. (2003). Vocabulary tricks: Effects of instruction in morphology and context on fifth grade students' ability to derive and infer word meaning. *American Educational Research Journal*, 40, 447-494.

Baumann, J.F., Edwards, E.C., FONT, G., Tereshinski, C.A., Kame'enui, E.J., & Olejnik, S. (2002). Teaching morphemic and contextual analysis to fifth-grade students. *Reading Research Quarterly, 37, 150-176*.

Beck, I., Mckeown, M.G., & Kucan, L. (2002). Bringing words to life: Robust vocabulary instruction. New York: Guilford.

Bong, M. (2006). Asking the right question: How confident are you that you could successfully perform these tasks? In F.Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp.287-306). Greenwich, CT: Information Age.

Buikema, J., & Graves, M. (1993) Teaching students to use context cues to infer word meanings. *Journal of Reading*. 36, 450-457.

Calfee, R.C., & Drum, P. (1986). Research on teaching reading. In M.C. Wittrock (Ed.), *Handbook of research on teaching* (pp.804–849). New York: Macmillan.

Chall, J., Jacobs, V., & Baldwin, L. (1990). *The reading crisis*. Cambridge, MA: Harvard University Press.

Compeau D. R. & Higgins C. A. (1995b). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly, 19(2),* 189-211.

Cunningham, A. E., & Stanovich, K. E. (1997). What reading does for the mind. *American Educator,* 22 (2/1), 8-15.

Dale, E. (1965). Vocabulary measurement: techniques and major findings. *Elementary English, 42*, 82–88.

Davis, F. B. (1968). Research in comprehension in reading. *Reading Research Quarterly, 3,* 499-545.

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior.* New York: Plenum Press.

Dickinson, O.K., & Tabors, P.O. (2001). *Beginning literacy with language: Young children learning at home and school.* Baltimore: Paul H. Brookes.

Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes.* Fort Worth, TX: Harcourt Brace Jovanovich.

Ehri, L. (1984). How orthography alters spoken language competencies in children learning to read and spell. In J. Downing & R. Valtin (Eds.), *Language awareness and learning to read* (pp. 119-147). New York: Springer Verleg.

Ehri, L. & Rosenthal, J. (2007). Spellings of words: A neglected facilitator of vocabulary learning. *Journal of Literacy Research*, 39 (4), 389-409.

Ehri, L., & Wilce, L. (1986). The influence of spellings on speech: Are alveolar flaps /d/ or /t/? In D. Yaden & S. Templeton (Eds.). *Metalingusitic awareness and beginning literacy* (pp. 101-114). Portsmouth, NH: Heinemann.

Ehri, L. C. (2000). Learning to read and learning to spell: Two sides of a coin. *Topics in Language Disorders, 20,* 19–36.

Folse, K.S. (2004). *Vocabulary myths: Applying second language re-search to classroom teaching.* Ann Arbor: University of Michigan Press.

Graves, F. M. (2006). *The vocabulary book: learning & instruction.* New York: Teachers College Press.

Graves, F.M. (2009). *Essential Readings on vocabulary Instruction*. International Reading Association.

Guthrie, J. T., Wigfield, A., & VonSecker, C. (2000). Effects of integrated instruction on motivation and strategy use in reading. *Journal of Educational Psychology, 92,* 331–341.

Guthrie, J.T., & Wigfield, A. (2000). Engagement and motivation in reading. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research: Volume III* (pp. 403-422). New York: Erlbaum.

Hatch, E., & Brown, C. (1995). *Vocabulary, semantics, and language education*. New York: Cambridge University Press.

Haddock, G. & Maio, G. (Eds). (2004). *Contemporary perspectives on the psychology of attitudes.* New York, NY: Psychology Press.

Kamil, M. L. & Hiebert, E. H. (2005). Teaching and learning vocabulary: Perspectives and persistent issues. In E. H. Hiebert & M. L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice* (pp. 1-23). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Karabenick, S. A. (Ed.). (1998). *Strategic help-seeking: Implications for learning and teaching.* Mahwah, NJ: Erlbaum.

Kennedy, D., & Weener, P. (1974). Visual and auditory training with the cloze procedure to improve reading and listening comprehension. *Reading Research Quarterly*, 8, 524-541.

Kuhn, M., & Stahl, S. (1998). Teaching children to learn word meanings from context: A synthesis and some questions. *Journal of Literacy Research*, 30, 119-138.

Linnenbrink, E.A. (2006). Emotion research in education: Theoretical and methodological perspectives on the integration of affect, motivation, and cognition. *Educational Psychology Review,* 18.

Lubliner, S., & Scott, A. J. (2008). *Nourishing vocabulary: Balancing words and learning*. CA: Corwin Press.

Marchand, G. & Skinner, E. A. (2007). Motivational dynamics of children's academic help-seeking and concealment. *Journal of Educational Psychology*, 99, 65-82.

Multon, K. D., Brown, S.D., & Lent, r. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, 38, 30-38.

Nagy, W. E., Herman, P. A. & Anderson, R. C. (1985). Learning words from context. *Reading Research Quarterly*, 233-253.

Nagy, W.E., & Scott, J.A. (2000). Vocabulary processes. In M.L. Kamil, P. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research*. Vol. 3, pp. 269–284. Mahwah, NJ: Erlbaum.

Nagy, W., Berninger, V. W. & Abbott, R. D. (2006). Contributions of morphology beyond phonology to literacy outcomes of upper elementary and middle-academic students. *Journal of Educational Psychology*, Vol 98(1), pp. 134-147.

National Institute of Child Health and Human Development. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.

Nunnally, J.C. & Bernstein, I.H. (1994). *Psychometric Theory* (3rd Edition). McGraw-Hill Series in Psychology, McGraw-Hill, Inc., New York: NY, 264-265.

Ortony, A. & Terrence, J. (1990). What's basic about basic emotions? *Psychological Review, 97*, 315-331.

Pajares, F. (1996). Self-efficacy in academic settings. *Review of Educational research*, 66, 543-578.

Pajares, F., &Miller, M. D. (1997). Mathematics self-efficacy and mathematical problem-solving: Implications of using different forms of assessment. *Journal of Experimental Education* 65, 213-228.

Pajares, F., & Urdan, T. (2006). *Self-efficacy beliefs of adolescents.* Greenwich, CT: Information Age.

Pearson, P. D., Hiebert, E. H., & Kamil, M. L. (2007). Vocabulary Assessment: What We Know and What We Need to Learn. *Reading Research Quarterly*, *42*(2), 282-296.

Pearson, P.D. & Hamm, D.N. (2005). The history of reading comprehension assessment. In S.G. Paris & S. A. Stahl (Eds.) *Children's reading comprehension and assessment* (pp. 13-70). Mahwah, NJ: Erlbaum.

Pesnick, D. P. &Resnick, L. (1977). The nature of literacy: An historical exploration. *Harvard Educational* Review, 47,270-285.

Rayner, K., Foorman, B. R., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2001). How psychological science informs the teaching of reading. *Psychological Science in the Public Interest, 2,* 31–74.

Scarborough, H. S. (1998). Early identification of children at risk for reading disabilities: Phonological awareness and some other promising predictors. In B. K. Sharpiro, P. J. Accardo, & A. J. Capute (Eds.), *Specific reading disabilities: A review of the spectrum.* pp. 75-119. Timonium, MD: York Press.

Schunk, D. H. (1981). Modeling and attributional effects on children's achievement: A self-efficacy analysis, *Journal of Educational Psychology,* 73, 93-105.

Schunk, D. H., & Pajares, F. (2002). The development of academic self-efficacy. In A. Wigfield & J. Eccles (Eds.), *Development of achievement motivation* (pp. 15-31). San Diego: Academic Press.

Scott, J., Hoover, M., Flinspach, S. & Vevea, J. (2008). A multiple-level vocabulary assessment tool: Measuring word knowledge based on grade-level materials. In Y. Kim, V. Risko, D. Compton, D. Dickinson, M.Hundley, R. Jimenez, K. Leander, D. Rowe (Eds.) *57th Annual Yearbook of the National Reading Conference.* (pp. 325-340). Oak Creek, WI: National Reading Conference.

Skinner, E. A., & Zimmer-Gembeck, M. J. (2007). The development of coping. *Annual Review of Psychology, 58,* 119–144.

Smith, R. E. (1989). Effects of coping skills training on generalized self-efficacy and locus of control. *Journal of Personality and Social Psychology , 56,* 228–233.

Stahl, S.A., & Nagy, W.E. (2006). Teaching word meanings. Mahwah, NJ: Erlbaum.

Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin, 124,* 240-261.

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, NJ: Erlbaum.

Terman, L.M.(1918). Vocabulary test as a measure of intelligence. *Journal of Educational Psychology, 9,* 452-466.

Thorndike, R.L. (1973). *Reading comprehension education in fifteen countries*. New York: Wiley.

Treiman, R., & Kessler, B. (2003). The role of letter names in the acquisition of literacy. In R. Kail (Ed.), *Advances in child development and behavior* (Vol. 31, pp. 105–135). San Diego, CA: Academic Press.

Ward, L.C. (1990). Prediction of verbal, performance, and Full Scale IQs from seven subtests of the WAIS-R. *Journal of Clinical Psychology*, 46, 436–440.

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.

Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breadth of their reading. *Journal of Educational Psychology, 89,* 420–432.

Wigfield, A., & Asher, S. R. (1984). Social and motivational influences on reading. In P.D. Pearson (Ed.), *Handbook of reading research* (pp.423-452). New York: Longman.

Appendix A

Questionnaire on Word Learning Beliefs in Reading and Listening

Demographic Information

1. Your Gender: **M** **F**
2. Average GPA: **A$^+$** **A** **A$^-$** **B$^+$** **B** **B$^-$** **C$^+$** **C** **C$^-$** **D** **E**
3. Major:_____ Minor:_____
4. Is English your first language? **Yes No** If no, what is your first or home language?_____
5. Are you an International Student? **Yes No** If Yes, what country are you from? _____
6. Race/Ethnicity: African American____ Latino/a ____ Chicano/a ____ Asian ____ American Indian____ Pacific Islander ____ White ____ Multi-racial ____

The following statements describe how you feel about reading or hearing new words. You are asked to tell how true the statement is for you. There are no right or wrong answers. We just want to know what you think.

When I am reading something,

1. I can tell small differences between words, for example, "big" and "huge".	Never	Seldom	Sometimes	Usually	Always
2. I can keep reading even if I see new words.	Never	Seldom	Sometimes	Usually	Always
3. I can learn many new words.	Never	Seldom	Sometimes	Usually	Always
4. I can use the new words that I learned.	Never	Seldom	Sometimes	Usually	Always

Scenario 1:

Think about the most interesting book you have ever read. You can think of a book you've already finished or the one you are still reading. There are no right or wrong answers. Think about the name of the book, the main characters, and what happened. (If you do not have a favorite book yet, think about the last book you read for fun.) Now, KEEPING THAT BOOK IN MIND, answer the following questions:

When I read a new word,

1. I can break down the new word into smaller parts;	Never	Seldom	Sometimes	Usually	Always
2. I can continue reading to figure out the new word;	Never	Seldom	Sometimes	Usually	Always
3. I can look up the new word in a dictionary;	Never	Seldom	Sometimes	Usually	Always
4. I can ask someone to explain it to me;	Never	Seldom	Sometimes	Usually	Always

5. I can look at the spelling to understand the new word;	Never	Seldom	Sometimes	Usually	Always
6. I can sound out the new word to see if I know it;	Never	Seldom	Sometimes	Usually	Always
7. I enjoy learning new words;	Never	Seldom	Sometimes	Usually	Always
8. I love breaking a new word down into smaller parts to understand it;	Never	Seldom	Sometimes	Usually	Always
9. I like using the dictionary to learn words;	Never	Seldom	Sometimes	Usually	Always
10. I feel good when I figure out a new word;	Never	Seldom	Sometimes	Usually	Always
11. I love telling others about new words that I have learned.	Never	Seldom	Sometimes	Usually	Always

Scenario 2:

Now, sometimes you have to read in class or finish reading assignment. These reading assignment might be from your teachers. Think about the last time you read a book or an article that you have to read in class or after class as homework, KEEP THAT READING IN MIND and answer the questions below:

When I read a new word in class or in homework,

1.I can break the new word down into smaller parts;	Never	Seldom	Sometimes	Usually	Always
2.I can continue reading to figure out the new word;	Never	Seldom	Sometimes	Usually	Always
3.I can look up the new word in a dictionary;	Never	Seldom	Sometimes	Usually	Always
4. I can ask someone to explain it to me;	Never	Seldom	Sometimes	Usually	Always
5. I can look at the spelling to understand the new word;	Never	Seldom	Sometimes	Usually	Always
6. I can sound out the new word to see if I know it;	Never	Seldom	Sometimes	Usually	Always
7. I enjoy learning new words.	Never	Seldom	Sometimes	Usually	Always
8. I love breaking a new word down into smaller parts to understand it.	Never	Seldom	Sometimes	Usually	Always
9. I like using dictionary to learn new words.	Never	Seldom	Sometimes	Usually	Always
10. I feel happy when I figure out a new word.	Never	Seldom	Sometimes	Usually	Always
11. I love telling others about new words that I have learned.	Never	Seldom	Sometimes	Usually	Always

Scenario 3:

We all listen at school. Sometimes you listen to teacher in class; sometimes you listen to CDs in class. THINK ABOUT LISTENING and answer the following questions:

When I hear a new word in class:

1. I can break the new word down into smaller parts.	Never	Seldom	Sometimes	Usually	Always
2. I can keep listening to see if I can figure out the new word.	Never	Seldom	Sometimes	Usually	Always
3. I can look up the new word in dictionary later.	Never	Seldom	Sometimes	Usually	Always
4. I can ask someone to explain the new word to me.	Never	Seldom	Sometimes	Usually	Always

Scenario 4:

Think about a time when you heard something after school. It could be anything, for example, a song, an interesting story, a TV show, or a piece of news. Now think about hearing a new word that you've never have heard before and answer the questions below:

When I hear a new word:

1. I can break the new word down into smaller parts;	Never	Seldom	Sometimes	Usually	Always
2. I can keep listening to see if I can figure out the new word;	Never	Seldom	Sometimes	Usually	Always
3. I can look up the new word in the dictionary later.	Never	Seldom	Sometimes	Usually	Always
4. I can ask someone to explain the new word to me;	Never	Seldom	Sometimes	Usually	Always

Appendix B

The Motivation for Reading Questionnaire

School name: _____ Teacher name: _____

Student name: _____ Grade: _____ Date: _____

We are interested in your reading. The sentences in this questionnaire describe how some students feel about reading. Read each sentence and decide whether it describes a person who is like you or different from you. There are no right or wrong answers. We only want to know how you feel about reading. For many of the statements, you should think about the kinds of things you read in your class.

Here are two samples to try before we start on the ones about reading:

If the statement is **very different from you**, circle a 1.
If the statement is **a little different from you**, circle a 2.
If the statement is **a little like you,** circle a 3.
If the statement is **a lot like you**, circle a 4.

	Very Different From Me	A Little Different From Me	A Little Like Me	A Lot Like Me
I like ice cream.	1	2	3	4

	Very Different From Me	A Little Different From Me	A Little Like Me	A Lot Like Me
I like spinach.	1	2	3	4

Okay, we are ready to start on the ones about reading. Remember, when you give your answers you should think about the things you are reading in your class. There are no right or wrong answers. We just are interested in YOUR ideas about reading. To give your answer, circle ONE number on each line. The answer numbers are right next to each statement.

Let's turn the page and start. Please read each of the statements carefully, and then circle your answer.

Remember: Read each sentence and decide whether it describes a person who is like you or different from you. There are no right or wrong answers.

Very Different From Me 1	A Little Different From Me 2	A Little Like Me 3	A Lot Like Me 4

1. I visit the library often with my family.	1 2 3 4
2. I like hard, challenging books.	1 2 3 4
3. I know that I will do well in reading next year.	1 2 3 4
4. I do as little schoolwork as possible in reading.	1 2 3 4
5. If the teacher discusses something interesting, I might read more about it.	1 2 3 4
6. I read because I have to.	1 2 3 4
7. I like it when the questions in books make me think.	1 2 3 4
8. I read about my hobbies to learn more about them.	1 2 3 4
9. I am a good reader.	1 2 3 4
10. I read stories about fantasy and make-believe.	1 2 3 4
11. I often read to my brother, sister, friend, or relative.	1 2 3 4
12. I like being the only one who knows an answer in something we read.	1 2 3 4
13. I read to learn new information about topics that interest me.	1 2 3 4
14. My friends sometimes tell me I am a good reader.	1 2 3 4
15. I learn more from reading than most students in the class.	1 2 3 4
16. I like to read about new things.	1 2 3 4
17. I like hearing the teacher say I read well.	1 2 3 4
18. I like being the best at reading.	1 2 3 4
19. I look forward to finding out my reading grade.	1 2 3 4

	Very Different From Me 1	A Little Different From Me 2	A Little Like Me 3	A Lot Like Me 4	
20. I sometimes read to my mother or father.					1 2 3 4
21. My friends and I like to trade things to read.					1 2 3 4
22. It is important for me to see my name on a list of good readers.					1 2 3 4
23. I don't like reading something when the words are too difficult.					1 2 3 4
24. I make pictures in my mind when I read.					1 2 3 4
25. I always do my reading work exactly as the teacher wants it.					1 2 3 4
26. I usually learn difficult things by reading.					1 2 3 4
27. I don't like vocabulary questions.					1 2 3 4
28. Complicated stories are no fun to read.					1 2 3 4
29. I am happy when someone recognizes my reading.					1 2 3 4
30. I feel like I make friends with people in good books.					1 2 3 4
31. My mother or father often tells me what a good job I am doing in reading.					1 2 3 4
32. Finishing every reading assignment is very important to me.					1 2 3 4
33. I like mysteries.					1 2 3 4
34. I talk to my friends about what I am reading.					1 2 3 4
35. If I am reading about an interesting topic, I sometimes lose track of time.					1 2 3 4
36. I like to get compliments for my reading.					1 2 3 4
37. Grades are a good way to see how well you are doing in reading.					1 2 3 4
38. I like to help my friends with their schoolwork in reading.					1 2 3 4
39. I read to improve my grades.					1 2 3 4
40. My mother or father asks me about my reading grade.					1 2 3 4

	Very Different From Me 1	A Little Different From Me 2	A Little Like Me 3	A Lot Like Me 4	
41.I enjoy a long, involved story or fiction book.					1 2 3 4
42. I like to tell my family about what I am reading.					1 2 3 4
43. I try to get more answers right than my friends.					1 2 3 4
44. If the project is interesting, I can read difficult material.					1 2 3 4
45. I enjoy reading books about people in different countries.					1 2 3 4
46. I read a lot of adventure stories.					1 2 3 4
47. I always try to finish my reading on time.					1 2 3 4
48. If a book is interesting, I don't care how hard it is to read.					1 2 3 4
49. I like to finish my reading before other students.					1 2 3 4
50. In comparison to my other school subjects, I am best at reading.					1 2 3 4
51. I am willing to work hard to read better than my friends.					1 2 3 4
52. I don't like it when there are too many people in the story.					1 2 3 4
53. It is very important to me to be a good reader.					1 2 3 4
54. In comparison to other activities I do, it is very important to me to be a good reader.					1 2 3 4

PAPERWORK BURDEN STATEMENT

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is **1850–0837**. The time required to complete this information collection is estimated to average 30 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection.

If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: U.S. Department of Education, Washington, D.C. 20202–4700. **If you have comments or concerns regarding the status of your individual submission of this form, write directly to:** Brooks Bowden, U.S. Department of Education, Institute of Education Sciences, 555 New Jersey Avenue, NW, Washington, DC, Washington, D.C. 20208.

Responses to this data collection will be used only for statistical purposes. The reports prepared for this study will summarize findings across the sample and will not associate responses with a specific district or individual. We will not provide information that identifies you or your district to anyone outside the study team, except as required by law.