A Short Path to a Long Road:

Adult English Language Learners

An Exploration of Explicit Instruction and Cognitive Vocabulary Learning Strategies

by

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Abstract

Vocabulary is the backbone of language. According to Nation (2006), an estimated 6000 to 7000 word families are needed to learn to function orally; and roughly 8000 to 9000 word families are needed to comprehend written texts. How are English language teachers able to help their learners with overcoming such a burden? Explicit instruction of vocabulary and cognitive vocabulary learning strategies combined is an effective approach explored. Issues surrounding vocabulary learning and effective teaching practices are provided in a literature review and builds upon favourable practices in pursuit of learning and retaining vocabulary through a workshop geared towards adult language instructors as a form of professional development.

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Chapter 1: Background Information

Introduction

The skilled use of vocabulary leads to improved generation, development, and presentation of ideas (Engber, 1995; Grabe, 1985; McNamara, Crossley, & McCarthy, 2010; Raimes, 1983, 1985). This summative statement initiated my growing interest in vocabulary development and the impact of this development in vocabulary for the adult English-language learner.

Vocabulary learning is a lifelong process; it is impossible to master the entire lexicon in any language, much less in a second or foreign language. Knowledge of vocabulary is only part of the language skills involved in learning a second language. It is the knowledge of vocabulary that enables further language use. Paradoxically, language use enables vocabulary knowledge (Nation, 1993). English-language learners face this circuitous paradox; vocabulary is necessary to read effectively, but the best way to improve vocabulary is through reading (Tran, 2007). This connection between vocabulary and reading comprehension among children and adult second-language learners is notable and thus well documented (Nation, 2005; National Institute of Child Health & Human Development, 2000).

Based on the vocabulary research with English-language learners, as their oral proficiency grows, so do their abilities to use more complex language-learning strategies. This added complexity of strategies leads to greater use of academic language and a greater grasp of word meanings (Genesee, Lindholm-Leary, Saunders, & Christian, 2005). Low vocabulary knowledge of keywords leads to weaker comprehension of texts, reinforcing that vocabulary knowledge is an important foundation for reading comprehension (Calderon, 2007; Garcia, 1991; Jimenez, Garcia, & Pearson, 1996; Nagy, 1997; Verhoeven, 1990).

Word families are groups of words closely related to each other to form a family based on similar form or similar meaning based on a common root word. Word families include

headwords, inflected forms, and derived forms. It is recommended that to function in English, 5000–7000 word families are necessary to know for oral discourse, and 8000–9000 word families for reading (Schmitt, 2008). In contrast to adult English-language learners, educated native adult speakers have a vocabulary size of 20,000 head words for word families (Goulden, Nation, & Read, 1990). A fluent English speaker possesses approximately a written English vocabulary of 10,000–100,000 words. Second-language learners diversely know a range of 2000–7000 English words upon their commencement of academic studies (Hadley, 1993). Knowing a limited number of words in contrast to the fluent English speaker impedes the success of the English-language learner (ELL) in listening to lectures, reading for information and writing essays. A second-language reader needs to know 98% of the words in a text in order to be able to read it successfully without a dictionary or other resource. In other words, a second-language reader can successfully read a passage of 50 words, allowing for one unknown word (Hu & Nation, 2000).

Estimates of reading vocabularies vary due to how the estimate is made. Variability in estimates is due to the size of the dictionary from which words were sampled, criteria to define a word, testing methods, as well as sampling procedures (Graves, 1986). Estimates of vocabularies for the English-language learners vary depending upon their first-language literacy development and their proficiency in English as a second language; they undoubtedly have a smaller English vocabulary than the native English speaker.

A language teacher is a vocabulary teacher, but a teacher cannot teach all of the words a second-language learner needs to know to become a proficient reader. According to Hiebert (2005), the 100 most frequent English words account for 50% of the words in a typical text. The 1000 most frequent English words account for 70% and the most frequent 5000 English words account for 80% in a typical text. A greater number of words exposed to the learner allows for a greater sophistication of vocabulary development. This greater exposure thereby generates new words to be learned.

The goal of an English-language teacher is to help the learners face the immense word-learning task and help foster an extensive vocabulary in order to diminish the burden of miscomprehension. Effective teaching practices and basic principles of vocabulary development have shown that second-language learners benefit more from explicit vocabulary instruction than from incidental vocabulary learning (Hinkel, 2006; Nation, 2005; Sokmen, 1997).

For both first- and second-language learners, whether children or adults, the more they engage with a new lexical item, the more success with learning they will experience (Schmitt, 2008). English-language learners can augment their vocabulary size, but success in this endeavour requires both systematic instruction and an extended length of time (Carlo, August, & Snow, 2005). Despite these findings of the importance of vocabulary knowledge and vocabulary engagement, few studies have examined the instructional practice outlining effective teaching of vocabulary (Helman, 2008). According to Shanahan and Beck (2006), although studies involving treatment groups reflected results that are consistent with the research for native speakers, further investigation is needed for effective vocabulary instruction for English-language learners. The National Institute for Literacy and the National Center for Study of Adult Learning and Literacy, a research working group, looked at 70 research studies related to adult literacy and reading instruction in Adult Basic Education (ABE) (Kruidener, 2002). Five of those 70 studies focused on English-language learners; the remaining were devoted to native English speakers (Burt, Peyton, & Duzer, 2005). In the past, vocabulary and its development with English-language learners had received little attention, in contrast to grammar as a major focus for language learners (Folse, 2004; Long & Richards, 2001). Although experimental research on vocabulary and its development with English-language learners is limited, it is beginning to receive added attention in second-language theory and pedagogy (August & Shanahan, 2006).

Many instructional procedures represented in the vocabulary studies with children and native English speakers reflect the same effective underlying ideas and principles found in second-language teaching. Research indicates that ELLs can accelerate their growth in

vocabulary with systematic and long-term vocabulary instruction (Carlo et al., 2005). Differences exist between young English speakers and adults learning English, such as the ways adults learn and how they should be taught to read. A well-developed first language can be used to enhance the learning of a second language (Graves, 2013). A basic foundation in the most frequent English words has been commonly recommended (Cummins, 2003; Nation, 2001; Schmitt, 2000) to consider when developing vocabulary for the adult English-language learner. In essence, the task before an adult second-language learner and its connection to vocabulary is complex, multi-faceted, and incremental.

Rationale

I have had the fortunate experience to teach adults for more than 20 years in a variety of ELL adult contexts: overseas, corporations, community college, university, and non-profit organizations. In each context, developing a curriculum or following a curriculum guideline has included varying perspectives on best practices for teaching vocabulary. Each program has been influenced by different approaches, dominated by the top-down, naturalistic, and communicative approach that was pervasive in the 1970s and 1980s. Strongly influenced by the use of lists that act as input to teach, together with subsequent variants, the importance of vocabulary goes beyond components of a syllabus.

Without substantial vocabulary and the application of strategies to acquire new vocabulary, language learners may be achieving less than their potential. A typical English conversation contains very few words that are unfamiliar to language learners beyond the basic stages (Nation, 2001). Furthermore, the oral/aural language the adult learners are exposed to in communicative English as second language (ESL) classrooms contains few words not found on lists of the most frequent English word families (Meara, Lightbown, & Halter, 1997). With respect to useful strategies for the learner to incorporate, combining both implicit and explicit methods of learning vocabulary clearly leads to better results. Each method holds its own strengths and influence on the learner but a combination of the two methods leads to greater

results (Schmitt & McCarthy, 1997). In order for learners to attain more than the basic oral communication skills, reading independently written texts is necessary to expand their lexicons. If teachers are not actively involving their learners in elaborating on new word knowledge, they should implement a systematic approach to teaching vocabulary that uses explicit instruction and fosters independent strategies. The recall and use of a word for a second-language (L2) learner is greatly determined by the exercises and learning strategies engaged in by the learner. Generally, the greater cognitive energy used, the greater the retention (Craik & Lockhart, 1972; Craik & Tulving, 1975). Past experience of teaching vocabulary placed an emphasis on implicit and incidental learning of vocabulary, as well with the encouragement of guessing meaning from context. These forms of instruction and approaches are now challenged. Rather, a combination of both implicit and explicit instruction is supported as a more effective strategy for vocabulary development for the adult language learner.

Purpose

The purpose of this project is twofold: first, to examine the research related to learning and teaching vocabulary for the adult language learner; and second, to develop a collection of strategies and principles to teach as a means to help retain the vocabulary for an adult language learner.

The results of this Master's project aim to benefit curriculum developers, material writers, researchers, language teachers, and most importantly, the adult language learner. My search in how to best help students learn, retain, and use vocabulary will be the main focus of my project within the context of the Canadian Language Benchmarks (CLB) and its guidelines for the federally funded program Language Instruction for Newcomers to Canada (LINC) funded by Citizenship Immigration Canada (CIC).

Chapter 2: Literature Review of Vocabulary Development for the Adult Language Learner

Introduction

Although multiple differences exist between the foreign learner and the native speaker of a language, the most striking difference is in the quantity of words the foreign learner possesses in comparison to the native speaker (Laufer, 1998). The value of lexis in language learning has been echoed throughout the vocabulary research (Hunt & Belgar, 2005; Lewis, 2000; Singleton, 1999). If we assume that the heart of language comprehension is vocabulary, then vocabulary development should be given added attention.

Language educators, child language researchers, socio-cultural researchers, and psycholinguists all highlight different techniques and methods to employ when addressing second language (L2) acquisition (Dixon et al., 2012). For the purpose of this project, the term *second-language acquisition* will be used broadly to refer to the learning of a second or subsequent language with a basic command of the language in a second language context. For the pedagogical purposes of this project, the terms *vocabulary* and *lexis* will be used interchangeably to refer to individual words, collocations, fixed and semi-fixed expressions. As well, I will be using the term *word families* to include inflected and derived forms as a single unit. It is important to note that learning one member of the word family does not mean that derived and inflected forms have also been acquired.

It is apparent that the number of words to learn when undertaking the task to learn another language is a challenge. Over 100 years of vocabulary research on native English speakers has found multiple conclusions. One is that verbal ability is the best indicator for vocabulary knowledge (Sternberg, 1987; Terman & Childs, 1912)**;** the teaching of vocabulary can improve reading comprehension (Beck, Perfetti, & McKeown, 1982); the limited vocabulary in children directly influences later vocabulary development (Hart & Risley, 1995; Templin, 1957; White, Graves, & Slater, 1990). Among many other significant findings from the research on vocabulary, it is suggested that vocabulary development for the English-language learner reflects

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similar findings with native English speakers (August & Shanahan, 2006; August, Carlo, Dressler, & Snow, 2005). For decades, efforts to understand vocabulary growth have been a significant part of the language acquisition literature (Rowe, 2012). According to Biemiller and Slonim (2001), 2.2 root words a day are acquired by children aged 1 through the second grade. English language learners are typically about two years behind average first-language students in vocabulary learning, even by the end of grade 6. Furthermore, the majority of the studies of vocabulary acquisition in L2 primarily deal with young children. In fact, such studies generally focus on cognitive development in L1, as opposed to learning vocabulary, not always applicable to older learners and second-language learners (Meara, 1981). Methods helpful for low-vocabulary native speakers of English would also be helpful for second-language learners, after they have acquired the first 2500 root words in English (Terman & Childs, 1912). According to August, Carlo, and Snow (2005) and Goldenberg (2008), most of what we have come to know about teaching native speakers also applies to English-language learners. However, we know that English-language learners' proficiency in their first language influences second-language word learning, particularly when looking at bilingual memory organization and cognate identification strategies for inferring unfamiliar words. These are merely two instances of first-language influences in the literature of differences between the adult language learner and the native English speaker (Graves, August, & Mancilla-Martinez, 2013). Vocabulary learning in a second language is an ongoing puzzle. The following research provides an overview of vocabulary learning and instruction with English learners.

Factors that Affect the Adult English-Language Learner

In the study of L2 learning, questions arise regarding a critical period to learn a second language. There is no evidence for the existence of a critical period for L2 learning: rather environmental and social influences can explain varying levels of success; with availability and access greatly influencing the learning of a second language (Pinter, 2011). Learning strategies for young children are more limited than strategies that are available to an older L2 learner.

Children who acquire their mother tongue demonstrate speech milestones that occur in a predictable sequence with defined age ranges; however, L2 learning does not follow such a clear sequence (Singleton & Ryan, 2004). The learning route of many L2 learners resembles L1 learners, but there is little evidence to show that younger learners are more successful or efficient in all language learning domains. Although younger learners may excel in certain areas of L2 acquisition, adult learners were shown to have long-term advantages in areas of pronunciation and grammar (Dixon et al., 2012). Seventy-one peer reviewed journal articles with a focus on pre-kindergarten to grade 12 included empirical studies that addressed questions related to L2 proficiency or academic achievement. The findings on optimal conditions for L2 acquisition were the following: a higher family socio-economic status, strong literacy practices at home, use of L2 informal opportunities, well-designed and implemented educational programs, along with sufficient time for L2 literacy instruction. More specifically within these optimal conditions, it was found that with systematic instruction, the L2 learners could make rapid progress resembling peer-equivalent English proficiency in reading , despite weaker L2 oral skills (Geva & Yaghoub Zadeh, 2006; Lipka & Siegel, 2007; Tagoilelagi-Leota, McNaughton, Macdonald, & Farry, 2005). In contrast, reading comprehension and vocabulary knowledge take longer with formal instruction, but can make rapid progress with systematic instruction. In other words, some aspects of L2 acquisition are subject to a critical period, while other aspects of L2 acquisition are not (Dixon et al., 2012). Reese, Garnier, Gallimore, and Goldenberg (2000) found that children starting school with both higher L1 literacy and L2 oral skills transitioned more rapidly to L2 English, showing stronger English reading skills in middle school. According to recent neurolinguistic studies in relation to adult learners, native-like L2 attainment in the lexicosemantic domain could be a possibility. These studies suggest that neural responses and activation patterns on L2 lexicosemantic tasks are typical among high-proficiency adult-onset second-language learners. Native-level attainment for adult L2 learners is possible but not the norm. More specifically, the circumstances were 20–30 years of daily interaction engaged in

language improvement. In contrast, language skills, such as morphosyntactic tasks, proved less promising results (Hellman, 2011).

A learner's first language is one of the most significant factors in learning the vocabulary for a second language because vocabulary, among other factors, directly influences the ease or lack of learning a new word. If the L1 is similar to the L2, there is a greater chance of the new L2 word being initially mapped as relabeled, not as a new conceptual unit. The recall and use of a word for an L2 learner is determined by the exercises and learning strategies engaged in by the learner. Generally, the greater cognitive energy used, the greater the retention (Craik & Lockhart, 1972; Craik & Tulving, 1975). The key to both vocabulary acquisition and learning is exposure. With respect to useful strategies for the learner to incorporate, combining both implicit and explicit methods of learning vocabulary would achieve better results lending its own strengths to each method (Schmitt & McCarthy, 1997). In sum, given appropriate instruction, accessible input, and addressing motivation, L2 learners are able to succeed. An outline of appropriate instruction and strategies will be detailed later.

Learning a Word and *Knowing* a Word

What does it mean *to know* a word? Word knowledge can be classified into two categories: receptive and productive. Receptive words are words that we understand; we understand that the word is a label for a meaning or meanings and that the word represents something. Productive words are words that we produce. Some words are more complex and have more than one meaning, while others are layered with rich connotations and connected to other concepts and words. Knowledge of a word requires a greater range of lexical knowledge of the word—more than just a definition. To know a word means knowing many things about the word: the literal meaning, the connotation it carries, the syntactic construction, the collocation, the grammatical knowledge, as well as the associations of the word as in synonyms and antonyms (Nagy & Scott, 2000). The form of a word includes the spelling and words parts. The meaning of a word includes the concept of the word and what it refers to. How the word is used is essential; in other words,

the grammar of the word such as the part of speech and its connotation (Hinkel, 2006). If the form of the word and its meaning are further away from the L1, then the learner must make a greater effort to learn the word.

As early as Thorndike (1921), whose word books were composed to assist teachers with reading instruction, researchers have been collecting and collating the quantity of words in a text that a student would learn in school (Hiebert, 2005). According to Nagy and Anderson (1982), 5000 distinct word families exist in school texts from grades 3 to 9. According to other resources, it has been estimated that 130, 000 word families exist in English, excluding proper nouns, archaic and dialect words (Dupuy, 1974; Goulden et al., 1990). Another recent estimate outlines that young native English speakers add 1000 words per year to their vocabulary until the age of 20, suggesting that a 20-year-old possesses 20,000 words (Goulden et al., 1990; D'Anna, Zechmesiter, & Hall, 1991). Designing a study that captures all of the word knowledge categories would be next to impossible. These variations in numbers reflect the varied definitions used as criteria to measure what it means to know a word and the type of vocabulary used to measure (Hiebert, 2005).

What Vocabulary to Learn and Teaching Methodology of Vocabulary

An understanding of the question – what vocabulary to learn and the various methods of teaching that vocabulary – is significant before moving on to a discussion of how to enhance an L2 learner's vocabulary.

The teaching of languages has had an array of influences and directions in its recent history. Some focus on syllabus issues, instructional design, and learning targets (Richards, 2013). Highly influenced by using lists as input for teaching, West (1953) identified a set of 2000 lexical items that students would need to learn in hopes of sustaining the language. Hindmarsh (1980) outlined 4500 words categorized into seven levels. The LINC program and CLB have been influenced by the communicative language teaching movement in the 1980s, moving away

from lexis as the primary component of a syllabus to a task-based syllabus model (Richards, 2013).

In contrast to L1 instruction, direct vocabulary teaching has been given varied attention in L2 instruction, depending upon the teaching method most recognized at the time (Akamatsu, 2008; Nassaji, 2007). In the early 20th century, the grammar translation approach was in vogue with form and inflection of words given added attention resulting in an emphasis on vocabulary teaching. Historically, teaching vocabulary had been largely neglected, with the exception of West's (1931) *New Method Readers*, which focused on vocabulary as the main unit of progression for the course. The teaching and learning of vocabulary, particularly with word lists, had been highly influenced by West (1953), who created a classic list of high-frequency words that contained 2000 word families. Within the field of L2 learning and teaching, learning vocabulary was given little emphasis before the 1980s (Maiguashca, 1993; Meara, 1981). Not until the 1990s did research in vocabulary L2 learning become a priority (Laufer & Nation, 1995). Much of the research in L2 vocabulary has focused on the size and growth of lexicons and the number of words gained or lost. Drawing from what native speakers know, knowledge of words from a dictionary or the frequency of words counted from text has often been the main source of information about vocabulary size. D'Anna et al. (1991), as well as Goulden et al. (1990), focused their attention on what native speakers know. Hazenberg & Hulstijin (1996), along with Laufer (1992), looked at the words that non-native speakers should know. Despite estimates of vocabulary size providing helpful information, these estimates do not provide an accurate goal for the non-native speaker because it does not take into account the productive use. According to Sanaoui (1995), recalling words by many of the adult learners in her study declined after a period of time once the words were no longer part of their productive vocabulary.

With the influence of anthropological linguists, the current communicative approach to teaching language emphasizes communication in the target language (Celce-Murcia, 1991). A required amount of vocabulary is necessary to be successful at completing the task. For instance,

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performing certain tasks—such as reading a newspaper, reading and comprehending an academic article, watching and understanding television, or engaging in a conversation—would require varying numbers of word families (Nation & Gu, 2007). For a person to read a simple novel or engage in a conversation, 6000–7000 word families or more are necessary (Adolphs & Schmitt, 2004; Hirsch & Nation, 1992; Nation, 2006). A more vocabulary-intensive task to perform, such as reading an academic text, would require around 10,000 word families (Nation & Gu, 2007). What do these numbers of word families tell us? When functioning in another language, the L2 speaker's vocabulary is limited compared to that of a native speaker of a language. Therefore selection of vocabulary should be based on functionality and frequency. How is a language instructor of English to decide what words are most useful for the learner to learn? It is possible that some words are useful for the learner to learn, yet are less frequent in use. Coxhead's (2000) academic word list of 570 words is such an example where academic vocabulary would be the goal of a learner pursuing academic study.

The selection of what words are appropriate to teach has been researched. Often, word lists of suggested words to teach are proposed, as outlined above (Beck, McKeown, & Kucan, 2002; Calderon, 2007; Nation, 2008). Many of these highly specialized lists have helped young readers as a point of reference for their level of reading and as a useful tool for teachers in the academic world for teaching language learners; however, teachers cannot feasibly teach all of the words L2 learners need to know to become proficient.

For the adult L2 learner, it is both the breadth of word knowledge and the depth of word knowledge that is lacking (Verhallen & Schoonen, 1993). References to breadth and depth of word knowledge have been widely used by vocabulary researchers. With such a diverse approach to the explanation of depth, transferability, and comparability across studies, variability has posed a challenge (Meara, 2009; Read, 2004). Studies have outlined that repeated exposure to a word leads to greater acquisition of the word: Nation (2001) suggested 20 exposures to a word were

deemed necessary for acquisition of word meaning. Nonetheless, the exploration of the interrelationships among the types of word knowledge is absent (Schmitt & Meara, 1997).

When looking more closely at the role of vocabulary knowledge and its impact on other skills, one understands that a good foundation in vocabulary is clearly necessary for successful reading comprehension. As well, a solid grounding in vocabulary also acts as a good predictor in writing skills (Dufra & Voeten, 1999). Given the significant correlation between vocabulary gain and reading comprehension, additional research on effective vocabulary instruction is critical (Shanhan & Beck, 2006). Second language extensive reading studies have used both direct and indirect measures of vocabulary (Cho & Krashen, 1994; Grabe & Stoller, 1997). Indirect measures prevent accurate findings because participants were taking English classes, or living in an English-speaking environment, or both. These variables skew the results of reported language gains attributed to the extensive reading program. The direct outcomes of participating in an extensive reading program that addresses vocabulary size is limited (Horst, 2005). In addition, agreement on how to enumerate extensive reading among researchers has added problems. Finally, discriminating the consequences from participating in an extensive reading program from other influences—possible external influences—has posed challenges for researchers who have looked at quantitative studies and language development (Waring, 2001).

The pressing, underlying question concerning vocabulary and adult language learners remains: What are the effective learning strategies for gaining and retaining vocabulary for the adult language learner? In spite of the research and progress that have been made in vocabulary development for the adult language learner, I will address vocabulary instruction, particularly strategies to teach and learn vocabulary using CLB in the LINC program. This resource is a useful tool for designing and implementing a vocabulary program for the LINC language classroom using the CLB curricula. In essence, learning vocabulary is one of the most important tasks for the English-language learner (August, Carlo, Dressler, & Snow, 2005; Goldenberg, 2008).

On one hand, research states that ideas and principles for children and native English speakers share underlying ideas and principles with the English-language learner. On the other hand, teaching vocabulary the same way to native English children and English-language learners could impede the learning of vocabulary, according to Folse (2004). The effect on vocabulary recall of introducing new vocabulary partially depends upon the method used. One common, favoured approach to teaching language learners new words is by grouping words into semantic sets (Grandy, 1992; Hashemi & Gowdasiaei, 2005; Haycraft, 1993; Seal, 1991; Stoller & Grabe, 1995; Wharton & Race,1999) suggesting that these sets reflect the natural organization of the mental lexicon (Aitchison, 1994, 1996). This concept comes mostly from studies of the organization of the mental lexicon in L1. Brain theories suggest that words are semantically organized in the human brain and words are recalled based on how they are conceptually mapped (Aitchison, 1994; Grandy, 1992; McCarthy, 1990). Teaching unrelated vocabulary hinders the learner from forming patterns of interrelated words in the mind, making it more difficult to reinforce one word by learning another word (Haycraft, 1993).

According to Waring (1997) and Folse (2004), presenting vocabulary this way is a myth not founded on research, but in fact, on methodology and convenience. Teaching methods are through either semantically related sets or semantically unrelated sets. Contrary to common practices by many language instructors and course books, new vocabulary presented and taught in semantic sets may cause interference due to cross-association and overloading in the short-term memory. It has been suggested that cross-associations cause limitations to learning new vocabulary. Many second language instructors, myself included, introduce words in semantic groups. For example, a health theme would ask students to learn the words for the parts of the body (sometimes referred to as semantic sets or clusters) and these sets or clusters share a common superordinate (headword). An alternative to teaching vocabulary as semantic sets is to teach new vocabulary words around looser themes, much like Nation's high-frequency lists (2000, 2005). Folse (2004) suggested grouping new vocabulary around looser themes, such as

going out to eat or planning a trip. These groups are related but do not form a semantic set with super-ordinate terms nor co-hyponyms (i.e., daisy and rose are hyponyms for flower). Pigada and Schmitt (2006) outlined in their study that semantically related words confuse the learner and words that have similar forms compound the confusion (Laufer, 1997), referred to as a "deleterious effect on learning" (Finkbeiner & Nicol, 2003, p. 376). Arguments in support of teaching new vocabulary in semantic sets or thematic sets are inconclusive and require further research.

Background Information for LINC and CLB

Common terms used throughout this paper in reference to CLB are found in Pawlikowska-Smith (2002) *CLB 2000: Theoretical Framework* glossary of terms (pp.66–79). The CLB glossary unfolds the theoretical approach of the CLB. The following terms are relevant to this paper:

1. Benchmark: A reference point: a statement describing what a person can do in English as a second language at a given level of communicative proficiency in four competency areas (social interaction, instructions, suasion, and information (p. 66).

2. Framework: A proficiency framework is an overall structure, based on models of communicative proficiency (language ability), and relating descriptions of language use, language teaching, and language assessment. CLB is a framework of reference for adult ESL learning and ESL programming (p.74).

3. Assessment: Often used interchangeably with evaluation. However, in its stricter sense, while evaluation focuses on the past (what has occurred and how it happened), assessment focuses on the present and the future (what is or what should be). Language assessment is often used instead of the term *language testing*, both for purposes of placement (placing learners in appropriate programs) or achievement (assessing learner outcomes against program objectives) (p.66).

4. Outcomes: In the CLB framework, curriculum outcomes (end results) are related to curriculum/syllabus objectives (specific goals set in the beginning). Both are derived from the

CLB standards. Outcomes are actual results measured against the initial objectives, and tell us what a person can do in accomplishing tasks in English at various Benchmark levels after participating in a CLB based curriculum as a learner (p. 78)

In response to an increase in immigration, the federal government has responded with various language-training programs. Historically, the first federal government funded English and French language-training program for adult immigrants was established in 1947. In 1978, the Canada Employment and Immigration Commission (CEIC), through the federal government, created a national language-training project as a component of the Canadian Job Strategies (CJS) program. In 1986 CEIC created a program called the Settlement Language Training Program (SLTP). Other programs—the Secretary of State Citizenship and Language Training Program and the Citizenship and Community Participation Program—prepared adult immigrants for their citizenship hearing (McDonald, George, Cleghorn, & Karenova, 2008).

In keeping with Canada's federal government's immigration plan for 1991–1995, emphasis was placed on services that would reach the multiple levels of citizenship. In 1992, with that goal in mind, and to replace all other programs, the Language Instruction for Newcomers to Canada (LINC) was launched (Bettencourt, 2003). Since that time, both the federal and provincial governments have administered English as a Second Language (ESL) programs. These language programs are offered through school boards, community colleges, universities, non-governmental organizations, as well as the private sector. Typically these programs provide English-language training; labour market preparation; citizenship test preparation. In addition, they provide support for *integration* into Canadian society (Guo, 2013).

With revisions added since its inception, the LINC program created guidelines to help orient newcomers to the Canadian way of life (CIC, 2006) outlining 12 general themes relevant for newcomers. Similar themes, such as Canadian law, shopping and banking, are tailored across different levels. Along with themes for basic communication skills, LINC also aims to create a

learning environment that takes into account new developments in curricula, teacher orientation, and methodologies (Bettencourt, 2003; Cray, 1997).

After a long consultation process to address the standardization of language guidelines and assessment, the federal government funded the creation of Canadian Language Benchmarks (CLB), put forth as a working document in 1996 following a long consultation process (Norton Peirce & Stewart, 1997) with revised versions in 2000 (Pawlikowska-Smith, 2000). CLB details 12 levels of language proficiency, each comprising a list of descriptors in the four areas: speaking, listening, reading, and writing. The CLB was established to create national standards to be used by all stakeholders as a framework for language training for adult immigrants. The standards are descriptive scales of language ability in English as a second language and include 12 benchmarks running on a continuum from beginner to advance.

The LINC program offers continuous intake, which refers to the practice of letting new students enroll at any point during a term. Although CLB 2000 (Pawlikowska-Smith, 2000) describes 12 levels of language proficiency, not all levels are taught in LINC classes. LINC is meant to provide immigrants with basic communication skills (EIC 1991). LINC provides a guideline for curriculum for teachers in this language and settlement program; however, it is the CLB that are used to assess the language level of immigrants across English-speaking Canada so that they can be placed in appropriate LINC class levels.

Vocabulary Instruction

Research has shown that English language learners can accelerate their growth in vocabulary, assuming that systematic and long-term vocabulary instruction is implemented (Carlo et al., 2005). Little research exists on how adult immigrant language learners learn to read in English, as well as the successful instructional practices that are associated with learning to read in English (Burt, Peyton, & Duzer, 2005; Kruidener, 2002). Language teachers are often

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uncertain about how to incorporate explicit and implicit vocabulary learning strategies in their teaching (Read, 2004).

For L1, a large proportion of words are learned incidentally through reading, listening, and repeated exposure; however, reading is the largest contributor to vocabulary development (Cunninghamn & Stanovich, 1998). One main way of learning new words in the first language is through reading (Cunninghamn & Stanovich, 1998; Sternberg, 1987). This well-established relationship and the incidental learning of vocabulary are overestimated with learners who have a mean vocabulary size of less than 3000 words (Nation, 1990). For adult L2 learners, studies reveal lower gains in incidental vocabulary learning. For both the native English speaker and the English language learner, incidental learning of vocabulary through reading and television viewing shows that incidental learning of massive amounts of vocabulary learning can and does occur, but the probability of learning a word from a single encounter in a naturally occurring context is 0.15 (Swanborn & Glopper, 1999). According to Schmitt (2010), language learners' incidental vocabulary learning from reading leads to a shallow understanding of the words, minimal recall of the words, and excludes function words with a focus on content words. Naturally, some and even thin instruction is better than no instruction. Nonetheless, what we do know is that there is growing evidence that suggests inferring and guessing the meaning of new words is a lengthy, inefficient, and error-prone approach to learning new vocabulary. According to Hultsijin (1992), there are too few encounters with specific words. Contextual clues are unhelpful or often beyond the learners' capacity. Based on a study and multiple calculations, printed school English words encountered from grades 3 to 9 occurring in texts and other material was about 88,000 word families (Nagy & Anderson, 1984). In a subsequent study, Anderson and Nagy (1992) looked again at the number of words in printed school English but included multiple meanings of words, idioms, and proper nouns; the estimate increased to about 180, 000 word families. These numbers clearly illustrate that to directly teach all of these words would be unreasonable.

If we accept Nation's (2001) argument that mastery of approximately 3000 high-frequency words would enable learners to comprehend 95% of the texts adult learners encounter, then language teachers need to move beyond lexical items and include innovative instruction and strategies to help expand learners' vocabulary and enhance both their receptive and productive retrieval processes (Carter & McCarthy, 1988; Nation, 2001; Nunan, 1991; Taylor, 1990). Both researchers and educators have investigated different approaches to vocabulary teaching. According to the National Reading Panel (National Institute of Child Health & Human Development, 2000), there is no single research- based method for teaching vocabulary but a variety of both direct and indirect methods of vocabulary instruction.

Effective vocabulary instruction occurs when learners are actively processing new words when provided with both definitional and contextual information while varying the encounters with the word. In other words, effective vocabulary instruction selectively chooses words to be given rich, deep, and extended instruction (Graves et al, 2013).

There is significant evidence to illustrate that children acquire significant L1 vocabulary incidentally from listening and reading (Nagy, Anderson, & Herman, 1987; Nagy, Herman, & Anderson, 1985). Incidental vocabulary learning through reading and listening is a plausible strategy for vocabulary enhancement, but more effective with L1 learners and more advanced L2 learners (Gu, 2003). Combining incidental and intentional learning as a strategy makes allowances for different aspects of vocabulary and different strategies of learning (Ellis, 1994; Nation, 2001; Schmitt, 2000).

Direct vocabulary instruction. Learning vocabulary gradually through repeated exposures in varying contexts has its place in vocabulary development. Many contemporary academic approaches to learning a language have placed minimal stress on the vocabulary learning of a language, making the assumption that vocabulary learning will occur as a by-product of the language activities (Zimmerman, 1994). How is a beginner language learner expected to learn enough words to learn vocabulary through extensive reading in various

contexts? Assuming that an adult language learner needs 3000 word families and 5000 lexical items if one is to include inflected and derived forms (Laufer, 1992), the opportunities of exposure to the target language to reach these numbers is a challenge.

In contrast to incidental vocabulary learning; developing, refining, and testing various forms of rich vocabulary instruction encompasses clear definitions and explanations of targeted words. The learners are involved in thinking critically about the meaning of those targeted words, while using examples in both authentic contexts and the learning context of the words. Teachers encourage learners to say, spell, and write the words repeatedly, all the while engaging language learners in word consciousness through various activities (August, Artzi, & Mazrum, 2010; August, Branum-Martin, Cardenas-Hagen, & Francis, 2009; Calderon et al., 2005; Carlo et al., 2004; Lawrence, Capostosto, Branum-Martin, White, & Snow, 2012; Mancilla-Martinez & Lesaux, 2010; Silverman, 2007; Snow, Lawrence, & White, 2009).

Experimental studies that compared incidental learning to explicit learning showed results that direct instruction was especially effective at the deepest level of knowledge (Sonbul & Schmitt, 2009). Studies throughout show that this type of explicit instruction with multiple encounters with the targeted words produce better learning, but can take time, as much as 30 minutes per word, with activities extended outside the classroom. Given the significant number of words that English language learners need to learn, rich instruction cannot extend to all words to be taught.

Strategies for Effective Vocabulary Learning

Building upon the issues outlined above on vocabulary instruction, strategies to adopt for the teaching and retention of vocabulary for adult language learners will be explored.

Vocabulary-learning strategies are considered a part of language-learning strategies (Nation, 2001).The concept of a strategy is not a static concept but a dynamic process with a problem to be solved as its central aim. Here, the problem is to enhance vocabulary production and retention for the adult language learner.

To transcend beyond comprehension and teaching individual lexical items, innovative techniques and strategies should enhance both receptive and productive retrieval processes. The task to learn vocabulary in another language summons a learner to put into practice an array of strategies of varying levels of complexity. The selection and effect of a strategy highly depend upon the individual, the task and the learning context (Gu, 2003) Schmitt and McCarthy (1997) outlined that language-learning strategies were largely dependent on the context where they were used. Some of these learning strategies were combined with other strategies, yet the proficiency of the learner and the frequency of the strategies influence the success of the vocabulary retention and production.

Vocabulary learning strategies have been defined and classified by many language scholars. One accepted definition is by Schmitt (1997) who defined vocabulary learning strategies as "the mechanism used in order to learn vocabulary as well as steps or actions taken by students (a) to find out the meaning of unknown words, (b) to retain them in long-term memory, (c) to recall them at will, and (d) to use them in oral or written mode" (p. 56). Schmitt (1997) proposed dividing learning strategies into the following five sub-categories encompassing 58 strategies in total: (a) memory strategies – connecting a new word with formerly learned knowledge; (b) cognitive strategies – similar to memory strategies but focusing on manipulative mechanical process; (c) metacognitive strategies – processes of learning and making decisions about planning, monitoring, and evaluating the best way to study; (d) determination strategies – used by individuals to discover a word's meaning without consulting other people; and (e) social strategies – a way to learn a new word by interacting with other people. Oxford (1990) identified two approaches to language learning: direct and indirect. The direct approach included memory and cognitive strategies; the indirect approach included meta-cognitive or social affective strategies. Depth of processing hypothesis states that deeper analysis – semantic involvement – leads to better retention in long-term memory. Nonetheless, studies show that many learners favour less deep strategies such as contextual guessing or repetition (Gu & Johnson, 1996).

Studies that look at vocabulary learning and strategies need to go beyond passive vocabulary size measures to include active vocabulary measures, adding support to Laufer's (1992) active vocabulary threshold hypothesis. This hypothesis suggests that patterns for the growth of active vocabulary differ from passive vocabulary development. These patterns of growth are largely influenced by the perceived need for use by the language learner. Once the learners feel the need for active vocabulary has been met, the efforts and strategies towards the growth of productive vocabulary stop (Gu, 2010).

The list of multiple learning strategies has been classified into numerous dichotomies. Ellis (1994) divided learning into implicit and explicit. For example, strategies that relate to implicit learning as a process take place naturally without conscious efforts. In contrast, strategies associated with explicit learning as a process are in search of structure. Incidental and intentional learning have been given numerous interpretations, making it difficult to distinguish them from the widely used terms implicit and explicit learning (Hulstijn, 2001). Incidental vocabulary acquisition is generally defined as "the by-product of any activity not explicitly geared to vocabulary learning" contrasted with intentional vocabulary learning as "any activity geared at committing lexical information to memory" (Hultsijin, 2001, p. 267). While a person is reading, the more demanding the task, the more vocabulary is learned (Laufer & Hill, 2000). In incidental vocabulary learning, such as encountering words through reading, words are retained in long-term memory and used more confidently in varying situations (Laufer & Hultsijin, 2001). The effectiveness of incidental vocabulary learning through extensive reading is different for low language proficiency because these learners do not have sufficient background knowledge to understand the text from the context alone to allow for inferring the meanings of unfamiliar words (Horst, Cobb, & Meara, 1998).

Teachers who devote time to vocabulary instruction to enhance their learner's vocabulary and comprehension abilities are often found to be using failed strategies (Blanchowicz & Fisher, 2003). Gu and Johnson (1996) stated that a good portion of the research on vocabulary learning

strategies have focused on methods of vocabulary presentation and their effects on retention. In fact, the learning strategies to attain vocabulary and the effectiveness that individuals use in their learning of vocabulary are other approaches that have been looked at. Gu and Johnson (1996) outlined vocabulary learning strategies as metacognitive, cognitive, memory, and activation strategies. Nation (2001) proposed divisions of strategies based on different aspects of vocabulary knowledge. The taxonomies differ in terms of strategies but all provide applicable vocabulary learning strategies. Deciding on the strategies a learner chooses to adopt or an instructor chooses to model depends on the student's needs, learning styles, proficiency level, task requirements, and context (Ghazal, 2007).

As the language learners' use of English develops with added vocabulary, additional words are learned by further exposure and manipulation of text and conversation. Therefore, it is important for learners to develop useful strategies to deepen their knowledge of words in hopes of achieving a greater awareness and interest in words. Second language research literature on word learning strategies is limited, but has looked at cognate knowledge (August & Shanahan, 2010; Shanahan & Beck, 2006) and a focus on strategies as part of a multifaceted vocabulary program. When strategy instruction is used with other methods of vocabulary strategic learning, determining the precise effects of one strategy over another poses a challenge. Carlo et al.'s (2004) study with English language learners looked at inferring meaning from context as one of many strategies taught. Considerable challenges were faced with inferring meaning from context; linguistically challenging texts and minimal text level control were contributing factors. As adult language learners become more competent in their English, contextual clues also become increasingly important and the language learners are able to use additional strategies along with context clues (Graves et al., 2013).

Word-learning strategies can help ELLs increase their vocabularies. Using word parts (such as prefixes, suffixes, and roots) to decipher the meaning of unknown words and reduce the load to learn has been well supported by research (Baumann, Font, Edwards, & Boland, 2005;

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Carlyle, 2007). The use of a dictionary with morphemic analysis, contextual analysis, and cognate knowledge are common strategies outlined in the research (August et al., 2005; Bravo, Hiebert, & Pearson, 2007; Carlo, August, & Snow, 2005). Explicitly teaching students to use the dictionary allows learners to become aware of multiple definitions for multiple contexts. The effectiveness of using dictionaries, in addition to inferring the meaning of a word from context, leads to more words learned immediately after reading and remembered more after two weeks (Knight, 1994). The complex process of using a dictionary involves active participation of the learner, a learner initiated action reinforcing the inherent relationship between strategies and individual differences. Becoming aware of morphemes and word parts deepens the learner's knowledge of word meanings. Two elements will naturally facilitate the learning of English vocabulary because of the similarities in spelling and meaning: the breadth of vocabulary in the learner's first language and the closeness etymologically that L1 is to English.

In addition to teaching language learners multiple strategies on how to learn words, it is paramount to foster word consciousness. The metacognition about words goes beyond the appreciation of words, but it is a desire to become more precise and skillful with the usage of the words (Scott & Nagy, 2004). Researchers found that explicit teaching of meta-cognitive strategies—previewing the new vocabulary or applying newly learned vocabulary—leads to more significant vocabulary learning with instruction than without (Rasekh & Ranjbary, 2003; Zaki & Ellis, 1999).

Mnemonic is a deeper processing memory strategy in contrast to word lists repetition. As an aid to memory, this area has received ample attention, with much of the research inspired by Atkinson (1972, 1975). Underlying the research behind mnemonics is the idea that vocabulary learning is a matter of memory. The keyword method, one of the most studied mnemonics, links a foreign word to be remembered with a keyword through an image that helps retrieve the meaning. With rigorous experimentation of over two decades, it is concluded that the keyword method is

superior to all other methods such as rote learning, semantic methods, or placing words in a sentence (Gu, 2003).

Used extensively with English speaking students, semantic mapping is defined as "a visual representation of knowledge, a picture of conceptual relationship" (Antonacci, 1991, p. 174). This technique graphically displays information of a central concept. The associations to that concept are visually represented in a diagram or map to help establish and visually illustrate the word relationships (Carrell, Pharis, & Liberto, 1989). According to Morimoto and Loewen (2007), image-schemas enhance vocabulary acquisition and improve reading comprehension because they help the learners ground the full conceptual knowledge of any given word. In spite of the theoretical claims of the importance of semantic mapping in developing L2 vocabulary, whether such a technique serves as a viable pedagogical device remains to be investigated. Despite semantic mapping being more effective with receptive retrieval processes than in productive retrieval processes, it is an effective device in teaching L2 vocabulary nonetheless (Radwan & Rikala-Boyer, 2011).

Among the hundreds of possible behaviours accounted for in language learning strategies, there is improved L2 proficiency overall when used appropriately. In general terms, skilled L2 learners choose strategies that work well together but are tailored to the language task. But less skilled L2 learners are less aware or even unaware of strategies to choose from, rather like fragments and are used in a random manner not tailoring the strategy to the task at hand (Oxford, 2002). In sum, both L2 and non-L2 studies suggest that effective strategy training for the learner is explicit, teaching the learners how to use a strategy and illustrating the transferability from one context to another (Oxford, 2002). In essence, language instructors need to train their learners with effective use of multiple strategies for real, communicative and contextual needs of their learners.

Curriculum Approach in Language Teaching: Backward Design

Too many educators design their lessons based on the teaching and not on the learning by focusing on the lessons, the activities, or the textbooks. It is this type of misdirected focus that fails to produce the desired results (Wiggins & McTighe, 2005).

Understanding by Design (Ubd) is a curriculum framework model that starts with the desired outcome first called "backward design" (Wiggins & McTighe, 2005). The process has three stages: identify design results, determine acceptable evidence and plan learning experiences and instruction" (pp. 17–18).

In contrast to behaviourism, a school of thought that studied how learning is affected by changes in the environment (Skinner, 1974), constructivism is a philosophy of learning purporting that knowledge is constructed by the individual through his or her interactions with the environment as an active processor of information. In charge of his or her learning, the language learner is required to learn with and from others (Draper, 2002).

In the 1980s, the communicative language teaching movement shifted the syllabus from grammar to lexis, thereby proposing syllabus models such as lexical and task-based models. Backward design has re-emerged as a prominent curriculum approach in language teaching. This design is an approach to curriculum design where the learning outputs are the basis for developing instructional processes and input (Richards, 2013). As noted by Richard (2013), this approach starts with the desired outcome; the teaching activities, tasks, and content are derived from the results of learning. There is no particular pedagogical approach or instructional theory; multiple and varied teaching methods are selected only after the outcomes are outlined (Richards, 2013).

In response to historical issues and circumstances, language teaching has seen the pendulum swing in different directions. Drawn from work of the anthropological linguist Hymes (1972) and Firthian linguist Halliday (1973), the communicative approach holds the view that language is a system for communication (Celce-Murcia, 2001).

Some clarity on the terms used throughout this section of the paper is necessary. The terms approach, method, and technique are succinctly outlined by Anthony (1963). Anthony defines approach to language teaching in general terms as a reflection of a certain model or research paradigm; such as, the communicative language teaching approach best reflected in the LINC curriculum guidelines. Method, on the other hand, is best understood as a set of procedures of how to teach a language. The communicative approach uses a task-based method where grammar and vocabulary are secondary; they are not ends in themselves but help to achieve the task. Finally, a technique is a device or learning activity such as a role-play used in a method (Celce-Muria, 2001). Within a divergent learning context such as English language learning, many L2 professionals see specific teaching methods as overly prescriptive (Brown, 2001; Kumaravadivelu, 2003, 2005).

In keeping with the literature outlined above, we know that the absence of explicit and form-focused instruction, along with extensive exposure and practice to meaning-based input, does not lead to syntactic and lexical development or accuracy (Hinkel, 2012). The Canadian Language Benchmark is a descriptive scale of language ability in ESL that includes communicative competencies and performance tasks.

The term *communicative competence*, according to Celce-Murcia (2007), has been in circulation for about forty years. A model with similar constructs to communicative competence is Bachman's (1990) model of language ability. Bachman's model was developed with assessment versus teaching as a driving force.

Applied linguists and language teachers at the time of Hymes (1967, 1972), who coined the term communicative competence, were developing the communicative approach to language teaching in reaction to grammar translation and the audiolingual approaches to language pedagogy. Many linguists adopted Hymes' terminology, which then became a new language-teaching approach for second- and foreign-language teaching.

The adult ESL learners in the LINC program demonstrate their language knowledge and skills in a variety of contexts. These descriptive scales do not include vocabulary items, nor do they comprise a curriculum. The theoretical foundation of CLB is the principle of communicative language ability, which requires an integration of language knowledge, skills, and strategies based on and adapted from models described by Bachman (1990) and Bachman and Palmer (1996, 2010). These models reflect communicative language ability. Cognitive knowledge of English as a second language is necessary for the learner's performance in a given language situation. The ability to overcome a communication breakdown, planning of a task, topical knowledge and affective reactions are elements of implementing appropriate contextualized communicative language use.

"Lexical competence is at the heart of communicative competence" (Meara, 1996, p. 35). Learners who have strategic competence (that is, those who make effective use of strategies) generally learn languages better and faster. It follows then that teaching strategies towards lexical competence will improve the proficiency of language learners. According to Oxford (1989), there are "many factors that influence learning strategies: language being learned; duration; degree of awareness; age; sex; affective variable, such as attitudes, motivation level/intensity, language learning goals, motivational orientation, personality characteristics, and general personality type; learning style; aptitude; career orientation; national origin; language teaching methods; and task requirements" (p. 236).

For the purpose of this paper, I will focus on delivering a workshop as some guidance in hopes of reflection, not as a set of prescriptions or proscriptions about how to teach. The organization and delivery of this workshop are designed to be general in nature, relevant to teaching in a variety of settings. Within learning strategies, there are cognitive strategies, meta-cognitive strategies, and social/affective strategies. Drawn on a variety of theoretical and experiential perspectives, the focus of this workshop will be on the instruction of three specific cognitive strategies, within a backward design curriculum for language teachers.

Cognitive strategies include vocabulary learning strategies that involve mental processing, such as the manipulation or transformation of new words. According to Chamot and O'Malley (1994), cognitive strategies include manipulating material or applying techniques. Outlined earlier in this paper under vocabulary learning strategies, I presented how Schmitt (1997) proposed dividing learning strategies into five sub-categories encompassing 58 strategies in total. I will focus on cognitive strategies, which are similar to memory strategies but focus on manipulative mechanical processes. Influenced by Oxford's (1990) comprehensive taxonomy of learning strategies, cognitive strategies are applied directly to the language itself.

Language Learning Strategies: Cognitive Strategies

Learning strategies is defined as "behaviors of a learner that are intended to influence how the learner processes information" (Mayer, 1988, p. 11). Rooted in cognitive science, learning strategies are involved in all learning, regardless of the content and context (Lessard-Clouston, 1997). Based on her work in helping teachers and its distinction from learning styles, Oxford provided a more succinct definition (1994, p. 18): "language learning strategies – specific actions, behaviors, steps, or techniques that students (often intentionally) use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement necessary for developing communicative ability." According to Scarcella and Oxford (1992), learning strategies can be classified into the following six groups: cognitive, meta-cognitive, memory-related, compensatory, affective, and social.

Based on research (Oxford, 1990), we know that when appropriate language-learning strategies are used, L2 learners show improved results in proficiency overall and in specific skill areas. Skilled language learners select strategies best suited for the language task at hand. Moreover, we also know that when learners are explicitly trained in using a particular strategy, they are more effective and successful with that strategy (Oxford, 1990). It has been a challenge to define and systematize the multiple language-learning strategies, partially due to a lack of

acceptance for defining and describing a strategy (Oxford, 1990). Nonetheless, instructing students on using strategies should be encouraged for reasons previously outlined. How well are teachers equipped with optimal procedures in outlining strategies and effective use of multiple strategies? My experience tells me that there is a need for added professional development in this area of teacher training. To address the need for added professional development, I have created a workshop to help second-language adult instructors effectively use three specific cognitive strategies to help with developing L2 vocabulary. Cognitive strategies generally involve the identification and retention of the language.

To be more effective at accomplishing language tasks, what is required is a good understanding of both the strategies that can accomplish that task and how to best develop such strategies. When students first learn to use a strategy, they must be explicitly taught what the strategy is and then intentionally and deliberately implement it. With increasing expertise, the learners require less conscious attention, thereby gradually becoming more automatic in the use of the strategy (Pressley, Forrest-Pressley, Elliot-Faust, & Miller, 1985). The job of language teachers is to explicitly teach and implement the strategies to maximize a learner's experience with language.

Cognitive learning strategies are often specific to distinct learning activities (Brown, 1982). Based on research and teaching experience, cognitive strategies include an extensive variety of learning strategies, such as inferencing, guessing words from context, connecting new information to other concepts in memory , repetition, resourcing , directed physical response, translation, grouping, note-taking, deduction, recombination, imagery, auditory representation, key word, contextualization, elaboration, transfer, and questions for clarification, to name a few (Brown, 1982; O'Malley, Chamot, Stewner-Manzanares, Russo, & Küpper, 1985). Mnemonic procedures refer to procedures that learners use for a new vocabulary word in order to facilitate its retention (Sanaoui, 1995).

My goal in presenting my learning from this research is to provide a workshop to increase teacher awareness to use cognitive learning strategies as part of instruction, thereby facilitating language learners to learn the second language more efficiently.

Language learners cannot be expected to implement cognitive strategies unless they are aware that use of such strategies can make them less dependent on their teacher and more responsible for their own learning.

Based on research, less proficient language learners rely more heavily on repetition and meaning to acquire new vocabulary, whereas a variety of strategies are used by more proficient language learners (Gu & Johnson, 1996; Lawson & Hogben, 1996; Schmitt. 1997). Mnemonic procedures refer to procedures that learners use for a new vocabulary word in order to facilitate its retention (Sanaoui, 1995).

Understanding and implementing cognitive strategies. To better understand a cognitive strategy, it is important to take a closer look at two areas: how the brain retains information, and the application of vocabulary instruction on the learner's retention. Synapses (i.e., connections between brain cells) are made when the brain learns. Each brain cell connects with other neurons. According to Jensen (2000, p. 11), "when linked together, the number of connections our brain cells can make is estimated to be from one hundred trillion to as much as ten followed by millions of zeroes...." Synapses are strengthened by repetition and develop networks by altering the input. Rote learning involves fewer neurons because the connections are weaker. Furthermore, the access to the rote learning is limited because there is only one path to the learning. Rote learning is an appropriate method for items such as the alphabet and numbers but rote memorization of meaningless, disconnected and decontextualized words alone is not effective instruction. Explicit vocabulary instruction may take longer to address more words, but one word in depth acts as a magnet to attract other related words associated. In brief, it makes sense to teach new words that correspond to how the brain retains, retrieves and builds on new words. A vocabulary activity that is more meaningful allows for the words to be deeply processed

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and more effectively associated with other information that resides in the brain. Simple repetition versus elaborate repetition calls for different levels of processing, learning conditions and pedagogical implications. Deep processing of vocabulary through repetition will be clarified in the workshop to follow. Pedagogical implications are attending workshops for professional development to enhance teaching strategies in the classroom that consider the brain and its impact when learning (e.g., added synapses when learning).

The two cognitive strategies outlined in the workshop will be referred to as NIOCM (connecting new information to older concepts in memory) and R (repetition). The workshop is titled "A Short Path to a Long Road."

The task to learn another language for the adult learner can be an onerous undertaking. Developing a good foundation in vocabulary is fundamental. Effective learning strategies for gaining and retaining vocabulary include vocabulary instruction that has learners engaged in deep processing and extended instruction. Based on theoretical and experiential perspectives, the workshop aims to help instructors better understand cognitive strategies.

Chapter 3: Conclusion

The theoretical basis for different methods and approaches to the teaching of English as a second language and learning of a language have come and gone. Initially, relying heavily on teaching grammar, the grammar-translation method taught vocabulary with lists and construction of correct sentences. Then the audio-linguist approach placed its attention on drills, repetition, and substitution exercises. This method emphasized that the learner was seen as a passive entity waiting to be programmed for language. Following the audio-linguists came the communicative language teaching approach that focused on natural communication, still in vogue currently. Other methods and approaches included the natural method, the direct method, the total physical response method, the silent way, and suggestopoedia. These methods have all influenced the contemporary eclectic approaches to learning a language. The research that focuses on the learning of a language today recognizes the vast contributions made by the learners and strategies employed in learning (Celce-Murcia, 1991).

Research has made it very clear that if we improve a learner's vocabulary by explicit instruction, we can improve their reading and writing performance (McCarthy, 1990; McKeown & Curtis, 1987). One way to improve language learners' vocabulary is through reading, but no single vocabulary strategy works best (Oxford, 1990). When time is dedicated to vocabulary instruction, many of these strategies fail to increase the learners' vocabulary, echoing the idea that many teachers are using inefficient strategies (Blanchowicz & Fisher, 2002; Nagy, 1988).

Cognitive learning strategies-strategies that help learners think about and understand the new language-work with multiple theories and methods. We know that effective training for teachers (i.e., workshops) that facilitate the value of vocabulary instruction and research based strategies are essential to the learners' success in literacy (Graves & Xu, 2000; National Institute of Child Health Development, 2000). Constructivism is a "theory of learning, and it is also a theory of knowing" (Walker & Lambert, 1995, p. 1). Clinchy (1995) recommends that teachers should participate in constructivist training that emphasizes deep understanding of practices,

facilitated through dialogue and reflection. Constructivist training should reflect adult learning theory and works towards a greater understanding of teacher practices, allowing for teachers to evaluate the strategies they currently use to instruct vocabulary in their classrooms.

Chapter 4: Designing a Workshop on Cognitive Learning Strategies for Adult Language

Learner Instructors

Background for the Workshop Design

As a language instructor, I hold true that it is our duty to provide our learners with quality teaching in hopes of maximizing their learning. In pursuit of quality teaching, many educators, including myself, engage in professional development with the objective to expand and improve our teaching practices. Since the turn of the 21st century, a greater amount of research has been generated to address issues related to professional development (Garet, Porter, Desimone, Birman, & Yoon, 2001).

In broad terms, *professional development* refers to an expansive variety of training for individuals in their professional role. On the other hand, "teacher development is the professional growth a teacher achieves as a result of gaining increased experience and examining his or her teaching systematically" (Glatthorn, 1995, p. 41).

The research on teacher development includes large and small-scale studies, intensive case studies, evaluations, and surveys of pre and in-service professional development experiences (Garet et al., 2001). Nonetheless, this same collection of research suggesting best practices and guidelines for teachers, provides little systematic research on the effects of professional development on the improvement of teachers' practice. The limited research conducted on changes and effects of teaching practice suggests that "research studies are needed to determine the efficacy of various types of professional development activities, including pre-service and in-service seminars, workshops, and summer institutes" (Bransford, Brown, & Cocking, 1999, p. 240).

One of the more traditional forms of teacher development is the use of workshops, short seminars and courses (Villegas-Reimers, 2003). When looking at professional teacher development as ongoing and a process of learning, offering workshops with other types of in-

service professional development has been documented as very successful (Villegas-Reimers, 2003). Despite the common assumption that professional activities such as a workshop, particularly of short duration, are ineffective; a good majority of studies that show a positive relationship between professional development and improvement in student learning, are based on workshops (Guskey & Yoon, 2009). According to Caffarella (2001), a high quality product, such as a workshop both impacts the participants at the time of the activity and transfers into the participants' practice. Rust (1998) has researched the effectiveness of workshops as a form of professional development and their impacts on participants' practice. Based on a quantitative analysis of the responses from a questionnaire collected from the participants, it was concluded that significant positive correlations exist between ratings and self-reported changes of practice. With regard to the length of a workshop, the span of time in a professional development activity is unrelated to improvements, likely due to the argument that the practice of something ineffective for a longer duration obviously does not lead to better results (Kennedy, 1998).

This two-hour workshop has been designed to inform language instructors of two combined cognitive strategies that best support the retention of vocabulary for adult English-language learners. The format of a workshop was chosen as a form of an intensive educational experience for professional development, while considering the effects of professional development.

Strategy instruction is a student-centred approach to teaching. A strategic approach to learning and recalling a new language is often what separates good learners from weaker ones (Baddeley, 2004). With explicit direct instruction, guidance, and support with ample opportunities for practice, language learners learn to integrate new language with what they already know, in a way that makes sense. It is this process that makes it easier for language learners to recall the language in a different situation or setting. A substantial body of research exists with respect to strategy instruction. This knowledge is extremely broad and has direct application to practice in almost every area of the educational curriculum. For the purpose of this

project and its limitations, strategy instruction will be limited to two specific cognitive strategies for language learning. The first strategy is getting students to recognize unfamiliar words and later making connections with the words for deeper understanding. The second strategy is to help students recall and retain the new words in long-term memory.

It is evident that students can benefit from understanding the strategies that good learners use. What's more, skillful teachers can play a critical part in guiding their students to use strategies until their use becomes an automatic part of each student's repertoire. Declarative knowledge is knowledge that is factual. To recall this type of knowledge, a language learner recalls facts, lists, names, or organized information in verbatim, summarized or paraphrased format. Krashen's input hypothesis (1982) made the distinction between implicit acquisition and explicit learning for L2, this illustrated that adult L2 learners can report about their language use (e.g., grammar rules) but struggle with basic use of the same grammar in conversation. In other words, conscious learning about language is a different domain than subconscious acquisition of language. "Implicit learning is acquisition of knowledge about the underlying structure of a complex stimulus environment by a process which takes place naturally, simply, and without conscious operations. Explicit learning is a more conscious operation where the individual attends to particular aspects of the stimulus array and volunteers and tests hypotheses in a search for structure" (Ellis, 2008, p.121).

Workshop and its Connection to CLB and LINC

In keeping with the theoretical framework of the Canadian Language Benchmarks (CLB) and its application to the Language Instruction for Newcomers to Canada (LINC) federal language program throughout Canada, strategic competence is a critical part of the language competence model. The benchmarks are task-based and include not only *what* to communicate but *how* to communicate, referred to as the management function of language use. The CLB (Pawlikowska-Smith, 2002) are grounded on Bachman and Palmer's (2010) model of language ability and states that "strategic competence regulates the use of that knowledge in

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communication" (Bachman & Palmer, 2010, p.44). It is important to note that given the various conceptions of both meta-cognitive and cognitive strategies outlined in the theoretical framework of CLB by different contributors and authors (i.e., Cohen, 2010; Grabe, 2009; Purpura, 1999), the areas of strategic competence in Bachman and Palmer's model (2010) are not "dissociated" from cognitive strategies (Pawlikowska-Smith, 2002, p. 28).

Introduction to the Cognitive Learning Strategies Workshop: A Short Path to a Long Road Strategies: NICOM (new information connected to old memories) and 3Rs (repetition, rehearsal, and recall)

       The significance of teachers' experience as a useful resource underlies the premise of this workshop. One good starting point for effective vocabulary instruction is a cognitive strategy approach to vocabulary teaching and learning. Holding students more accountable for their learning must be built into a backward design, much like the design of this workshop. Based on the reviewed literature and this workshop included as an appendix, the desired outcome of this workshop is to develop two specific cognitive learning strategies for language instructors to teach in order to help maximize the learning of vocabulary for their learners. By combining memorization of new words and engagement of students in a learning process of both procedural and declarative knowledge, this two-hour workshop aims to guide language instructors through a process of enticing educators to use and practise cognitive learning strategies in their teaching.

Workshop Agenda

Length of Time	Activity/Task for participants	Instruction/Steps
5–10 mins.	Welcome & Introduction	Participants are welcomed and given a brief overview of the goal of the workshop and some background information to the impetus of this workshop**.**
5–10 mins.	Warm-up Prior knowledge activation	Participants are asked to reflect and define the following terms (skill, strategy and learning style). Definitions provided on overhead or handout (this would depend on the number of participants attending and the location of the workshop**.**
10 mins.	Questionnaire	Participants are asked to fill in their own questionnaire and reflect on their strategies they use in their teaching and classrooms.
10–15 mins.	Think, Pair and Share	Participants are asked to work in pairs and share their one strategy that stands out of all others they use in their teaching
15 mins.	Text Selection	All participants are asked to read the text and use the strategy they have discussed with their partner on how they would facilitate a vocabulary exercise with their students. The goal of this reading is to have students read the text and maximize their understanding of it. By maximizing the text, students can use the vocabulary and information as input for speaking and later writing. The text chosen is a highly technical medical report from: *The New England Journal of Medicine*. (2014), DOI:_10.1056/NEJMicm1312006

Cognitive Learning Strategies		
Length of Time	**Activity/Task for participants**	**Instruction/Steps**
20 mins.	Lead-in to Mnemonics(NICOM) Note: receptive versus productive vocabulary	Facilitator or workshop leader instructs the participants in these two strategies. Workshop leader introduces, models and practices the NICOM strategy, while eliciting from the participants, to actively engage the participants.
10 mins.	Language learning and the brain	Participants are presented with a rationale for use of the NICOM cognitive vocabulary learning strategy.
10 mins.	3Rs repetition, rehearsal & recall	Participants are asked to recall one of the words selected from the text previously distributed. Likely the recall is a struggle, demonstrating simple repetition (a one-way relationship of word and its definition). In contrast, participants are asked to work with the same word using the 3Rs approach. The goal here is not to teach a word or the content of the text, but demonstrate the strategy. Through repetition and rehearsal, recall is helped with the word taking hold when asked to recall the meaning and its use.
5–10 mins.	Concluding remarks & Wrap-up for Questions and Evaluation	Time is allotted for questions and discussions. Participants are asked to fill out the evaluation form for added feedback and further improvements. (see Appendix H)

Welcome and Introduction

An old Chinese proverb: Give a man a fish and he eats for a day; teach him how to fish and he eats for a lifetime (Wenden, 1987). This proverb reflects much of what I hope to accomplish in this workshop. Language learners need to learn how to learn and teachers need to learn how to facilitate the process (Oxford, 1990, p. 201). In essence, language learning strategies help make the learning of a language easier and more effective. In teaching a cognitive strategy, it is important to be flexible in the process of learning the strategy. As a facilitator, it is important to be willing to explore with the learners and their questions, take risks in the approach, and explore the possibilities. Selection of two cognitive strategies has been deliberately made; as experience and confidence develop, consideration of extending to other strategies should be integrated into your teaching practice.

Warm-up Activity

Participants are asked to reflect on the following terms (skill, strategy and learning style). In groups of 3-4, participants are asked to write definitions for these three terms in hopes of activating their prior knowledge. Once a sufficient amount of time is given, participants share their definitions.

The simple tasks of using acronyms to memorize the colors of a rainbow: (Roy G Biv = red, orange, yellow, green, blue, indigo, and violet) or highlighting important words or text are common strategies used throughout. However, we cannot use such strategies without being first taught such procedural knowledge (Griffiths & Parr, 2001). For the purpose of this workshop, clarity on the use of these often confused terms has been taken from Harris, T., & Hodges, R. (1999). *The literacy dictionary: The vocabulary of reading and writing*. Newark: DE: International Reading Association.

Clarity of related definitions

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cognitive style: a preferred way of perceiving and organizing information and of responding to stimulation; learning style. Note*:* Cognitive styles vary, as from analytic to thematic or form impulsive to reflective. (p. 35)

skill n.: an acquired ability to perform well; proficiency. Note: The term often refers to finely co-ordinated, complex motor acts that are the result of perceptual-motor learning, as hand-writing, golf, or pottery. However, skill is also used to refer to parts of acts that are primarily intellectual, as those involved in comprehension or thinking. (p. 235)

strategy n.: in education, a systematic plan, consciously adapted and monitored, to improve one's performance in learning. (p. 244)

Reminder of some facts and moment of reflection:
Texts cannot be understood without knowledge of words. According to Nation (2006), between 6000 and 7000 word families need to be learned to manage the simplest written texts. How do you enhance the effectiveness of your vocabulary instruction in your classes?

Before moving to more specific cognitive learning strategies, participants are asked to fill in a

questionnaire in hopes of becoming more aware of their own approaches in their classroom teaching of

vocabulary. See Appendix A. Throughout the workshop, the leader will periodically have participants

reflect on the outlined facts and reflection referred to as the reminder of some facts and moment of

reflection.

Pair and Share

Reminder of some facts and moment of reflection:
"As new ideas arise, informal networks carry information among professionals in organizations, with potential to influence change in professional values."(*Gibbons, D.E., 2004*, Friendship and advice networks in the context of changing professional values. *Administrative Science Quarterly, 49*(2), p. 238.

Participants are asked to work in pairs to share their thoughts on the use of strategies. Participants are asked to discuss one particular strategy that they use most often in the practice of teaching. Participants are reminded of classification of words for their teaching of vocabulary.

Text Selection

Reminder of some facts and moment of reflection:
Refer to Beck, McKeown, and Kucan (2002) for further information. In sum, Tier 1 words are general words, Tier 2 are specialized words and Tier 3 are technical words often specific to a discipline. Can you recognize which you selected as Tier 1, 2 or 3 words?

Participants will be given a handout of a text that pertains to the participants' level of comprehension and challenge (likely language instructors). Participants are given sufficient time to read the text for comprehension. Participants are asked to select words they feel are unfamiliar to them, particularly words that interfere with their comprehension.

First learners need to identify unfamiliar words. Tiering words can help with selecting vocabulary. Have the participants ask questions about unfamiliar words. For example: *Is this word critical for comprehension of the text?* Prior knowledge is necessary to help us understand what we hear, read, interpret, and act accordingly. Particularly with vocabulary, it is also a necessary condition when learning and recalling a new word by linking it to something we already know. Ask your learners questions about what they already know. Help them build synonyms or antonyms to help with new terms. Support them in creating visuals or images to differentiate the new words from prior knowledge.

Introduction of Cognitive Strategies

Reminder of some facts and moment of reflection:
Comprehension involves processes and strategies to construct meaning. What types of strategies did you find yourself using while reading the selected text? Based on her work in helping teachers and its distinction from learning styles, Oxford provided a more succinct definition (1994, p. 18), "language learning strategies-specific actions, behaviors, steps, or techniques that students (often intentionally) use to improve their progress in developing L2 skills. These strategies can facilitate the internalization, storage, retrieval, or use of the new language. Strategies are tools for the self-directed involvement necessary for developing communicative ability."

Multiple strategies exist under the umbrella of cognitive strategies. Two particularly effective strategies in the aid of vocabulary enhancement and retention are NICOM and the 3Rs.

1. The facilitator presents the notion of a cognitive strategy that I have coined as the acronym-NICOM (new information connected to old memories).

Participants have now read the text, have already used cognitive learning strategies such as addressing prior knowledge and highlighting unfamiliar words in the text.

Example: Let's take one sentence from the entire text. Why is there a rapidly emerging resistance to both *artemisinin* and *piperaquine*? If you don't have the background knowledge, what Richard Anderson called schema (plural schemata), without a background in medicine, this question would not lead to a gateway to schema.

In addition to schema, naturally learners would need to define and understand the keywords from the text. With the aid of the facilitator, an additional unfamiliar word from the text is highlighted and defined. Ensure the learners have a general sense of the meaning of the new word. In the classroom, teachers would encourage learners to define the word first. Nonetheless, simply providing a definition does not create deep understanding.

Lead-in to NICOM

Reminder of some facts and moment of reflection:
CAUTION: research has consistently demonstrated that definitional information alone does make a significant contribution to reading comprehension. Words are not directly linked to their definitions in one's brain. Rather vocabulary words are doors to interconnected information.
Definitions illuminate the meaning of words, but providing a definition alone is insufficient. All of this unfamiliar vocabulary is presented to language learners, yet little coordinating of vocabulary is being connected from one class to another. Being taught the words and learning the words is foundational for the students, but teachers are not necessarily given more time to teach vocabulary.
How do teachers know if the understanding of unfamiliar words has now become familiar to their learners?

Receptive versus productive vocabulary

Our receptive vocabulary is considerably larger than our productive vocabulary. You may know lots of words, but you don't use them in your speaking and writing. Knowing a word is a matter of degree. You may read the unfamiliar word **(use word X from text now, after it has been defined)** and you can now get the general gist of the word, to a certain degree from a definition. The definition of a word is the basic requirement for receptive control.

As a learner becomes more familiar with the word, that learner not only knows the spelling, pronunciation, and meaning but also will begin to learn the nuance, connotation and register. Therefore it is important for the teacher, as well as the learner, to add to their knowledge of the word by exposing them to multiple contexts and situations. See Appendix A.

Many times, teachers ask students to use the word in a sentence. Often the word used in the sentence is not used in a meaningful context and therefore the word in the sentence does not illustrate the meaning of the word. For example, we have seen the common misuse of simple words such as *obtain* in the sentence: *After a long courtship, the couple decided to obtain marriage.*

Teachers should expect receptive knowledge from their learners unless the teachers are instructing steps towards productive vocabulary knowledge. In other words, unless there is use of the new word in a sentence as well as bridging new information to already known information with repetitive exposure, learners do not move beyond receptive knowledge of the word.

As outlined previously, before distributing the text, prior knowledge or schema was mentioned. Participants need to activate their prior knowledge (what do you know about the text?) This bridges new potential words to be learned with existing knowledge. Relationships within and among words actively involve the learners in constructing word meanings. See Appendix B.

NICOM (new information is connected to old memories*)*

It is necessary to connect the new words with other words known to help retain the word by using a keyword method (graphic organizers can be used with word maps, graphs, charts, webs,

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symbols or colors). This strategy and process help the learner to internalize the meaning of the word by

drawing attention to their understanding at a deeper level. See Appendix C.

The productive control of words through explicit vocabulary instruction, must take place over

time, helping our learners make connections with multiple exposures.

Reminder of some facts and moment of reflection:
What is the relationship between brain and vocabulary learning?
Synapses are connections between brain cells. As your learners learn a language, synapses are
being made. Although repetition helps with strengthening these synapses, weaker connections
are made, in comparison to multiple exposures of the word with new connections made with
new pathways created.
How often do you give your learners a list of words with their definitions to match and later
assign homework requesting them to memorize meaningless disconnected words?

Have participants come up with an activity to use in their classes that could allow for making

new words connect to old memories. In other words, try using these new words as a magnet to connect

and help retain new words. See Appendices D, E, & F.

Teachers can help with leading questions to make added connections:

What does this word remind me of?

Classify the word by grouping it with …What other words does this word belong with?

What kind of category does this word fit under?

2. The facilitator presents the cognitive strategy 3Rs for repetition, rehearsal and recall.

Reminder of some facts and moment of reflection:
Personalizing vocabulary has an impact. "When senses are stimulated and our emotions are
aroused, multiple memory pathways are engaged"(Jensen, 2008, p. 163).

Shallow processing versus deep processing. The keyword method does not develop a deep
processing of new words. Challenging your learners to look closely at vocabulary and express
their thinking about the words is deep processing. An effective question about vocabulary
allows your learners to separate key elements of a word from simply-what's the definition?
Return to the strategies from the questionnaire, how many of the activities/strategies ask for
shallow/deep processing?

Have participants refer to the semantic map. See Appendix G.

Working with semantic maps allows for organization of new information with old memories. This type of map is a good visual reflection of prior knowledge with new terms. The semantic map does not allow for subcategories or hierarchical relationships, for that a different type of graphic organizer may be used.

Another alternative to help with repetition and recall is the keyword method where a personalized visual or auditory mnemonic device is used to link the new word and its definition.

Participants return to the word from the text that was defined earlier; a definition is provided. This method has the participants recode the new word with a familiar word that *sounds* like the new word.

Facilitator provides an example: *insidious*. The definition is *seeking to trap*. A key word for insidious could be *inside*.

A visual image of the keyword and its definition is the use of drawing a picture that represents the definition of the new word. By making a connection between the drawing and the new word, recall of the definition and its associated image has been found to be more successful with learners. Participants are encouraged to repeat, rehearse and recall the new words under multiple contexts incrementally.

Conclusion and Wrap-up

Reminder of some facts and moment for reflection:
As learners begin to understand the relationship between implementing strategies to develop their vocabulary and their success in learning new words, they become more motivated as a result (Chamot, 1999). Chamot, A. (1999). Learning strategy instruction in the English classroom. *The Language Teacher Online, 23*(6). [Online] Available: http://www.jalt-publications.org/tlt/articles/1999/06/chamot (January 7, 2009)

How do you measure your learners vocabulary? How do you measure their retention of the words you have outlined for them? How skillful are your learners with learning new words? Next time your learners complete their vocabulary test or complete their task on vocabulary, reflect on how well they have learned those words?
How many of the words do you recall from the original text?

Given the number of strategies (indirect and direct) to help foster vocabulary development, providing

an awareness of the strategies is the first step for your learners.

Participants are asked to take some time and reflect on their learning from the workshop. See Appendix

H.

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Appendix A: Vocabulary Learning Strategies Questionnaire

Adapted from O'Malley, Chamot, and Walker's (1987) classification.

Table 1: Definitions and examples of Language Learning Strategies -recognized for its strong theoretical base.

Strategies	Definition	Examples
Meta-cognitive	Executive processes in planning for learning	Directed attention, self-management, and self-evaluation
Cognitive	Direct manipulation of the material to be learnt	Repetition, note-taking, and deduction
Social/affective	Direct interaction of learners with other people in order to assist their learning	Cooperation and asking for clarification

Vocabulary Learning Strategies Questionnaire

This questionnaire has been compiled from multiple sources, my own experience, discussions with colleagues, and textbooks on methodology of teaching. Based on your past or daily teaching experience, what vocabulary learning strategies do you teach to your learners or use with your learners?

Vocabulary Learning Strategy	Yes	No	Don't Know	Vocabulary Learning Strategy	Yes	No	Don't Know
Analyze affixes and roots of words				**Look words up in a dictionary**			
Analyze the parts of speech				**Matching words to definition**			
Associate words with other words learned				**Morphology chart**			
Cloze exercises/Fill in blanks				**poetry**			
Connect words with personal experience				**songs**			
crossword puzzles				**Student-made books**			
diagrams and charts				**Use the word in a sentence**			
discussion practise				**Use vocabulary games**			
Drawing pictures that illustrate the word				**Verbal repetition**			
Flashcards with definitions				**Vocabulary graffiti**			
Games (e.g. pictionary or balderdash)				**Word posters**			
Gestures				**Word riddles**			
Grouping words by topic for review				**Word searches**			
Guess from context				**Words with pictures /Word walls**			
Journal writing				**Written repetition**			
Keyword method				**BONUS (your own strategy not on the list)**			

Appendix B: Text for Reading

HETEROTOPIC OSSIFICATION
OF A MIDLINE ABDOMINAL INCISION

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A 49-year-old man underwent computed tomography (CT) as part of routine follow-up after a left nephrectomy performed 2 years previously for renal-cell carcinoma. A healed vertical midline incision in the upper abdomen was found during a physical examination. CT of the abdomen revealed a vertically oriented, linear, calcified lesion in the incision scar on the anterior abdominal wall (Panel A, arrow), extending from the immediate subxiphoid region (Panels B and C, top arrow) to the umbilical region (Panels B and C, bottom arrow). This finding was consistent with heterotopic ossification, a subtype of myositis ossificans traumatica. Histologic evidence of osseous, cartilaginous, and occasionally myelogenous elements distinguishes this entity from dystrophic calcification. Although it is symptomatic only in rare cases, it may cause abdominal pain and discomfort; treatment in such cases consists of complete excision with primary closure. In this case, no further action was taken; however, the patient was advised to return for a follow-up visit.

Lindsey R. Baden, M.D., *Editor*

HETEROTOPIC OSSIFICATION

OF A MIDLINE ABDOMINAL INCISION

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A 49-year-old man underwent computed tomography (CT) as part of routine follow-up after a left nephrectomy performed 2 years previously for renal-cell carcinoma. A healed vertical midline incision in the upper abdomen was found during a physical examination. CT of the abdomen revealed a vertically oriented, linear, calcified lesion in the incision scar on the anterior abdominal wall (Panel A, arrow), extending from the immediate subxiphoid region (Panels B and C, top arrow) to the umbilical region (Panels B and C, bottom arrow). This finding was consistent with heterotopic ossification, a subtype of myositis ossificans traumatica. Histologic evidence of osseous, cartilaginous, and occasionally myelogenous elements distinguishes this entity from dystrophic calcification. Although it is symptomatic only in rare cases, it may cause abdominal pain and discomfort; treatment in such cases consists of complete excision with primary closure. In this case, no further action was taken; however, the patient was advised to return for a follow-up visit.

nephrectomy- kidney removal

renal-having to do with the kidney

cell carcinoma-type of cancer that develops from epithelial cells
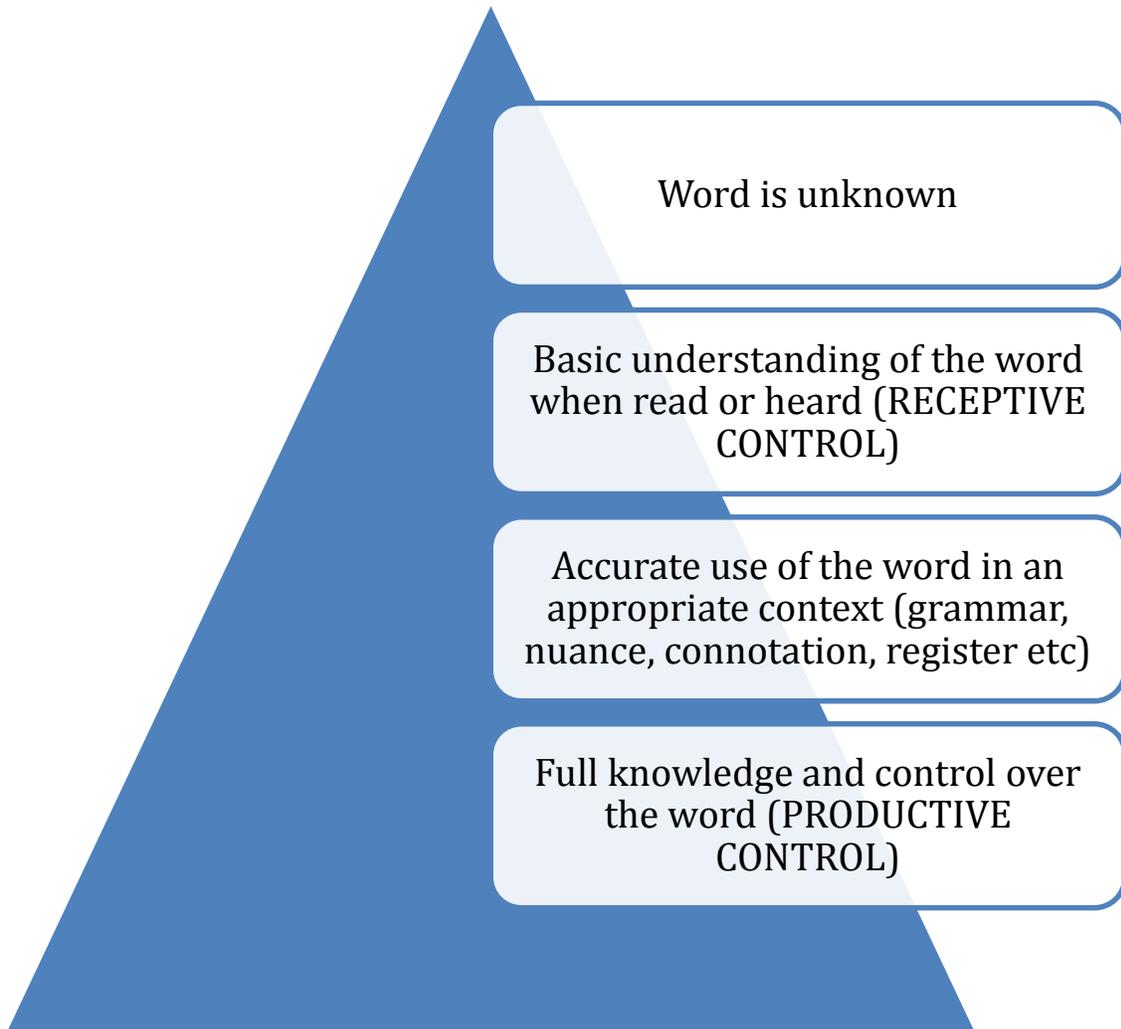
epithelial-membranous tissue

heterotopic-occurring in an abnormal place

ossification-process of laying down new bone material by cells

Receptive to Productive Control Process

Figure 1. A graphic representation of the process of knowing a word (adapted from Benjamin & Crow, 2013)

Word is unknown

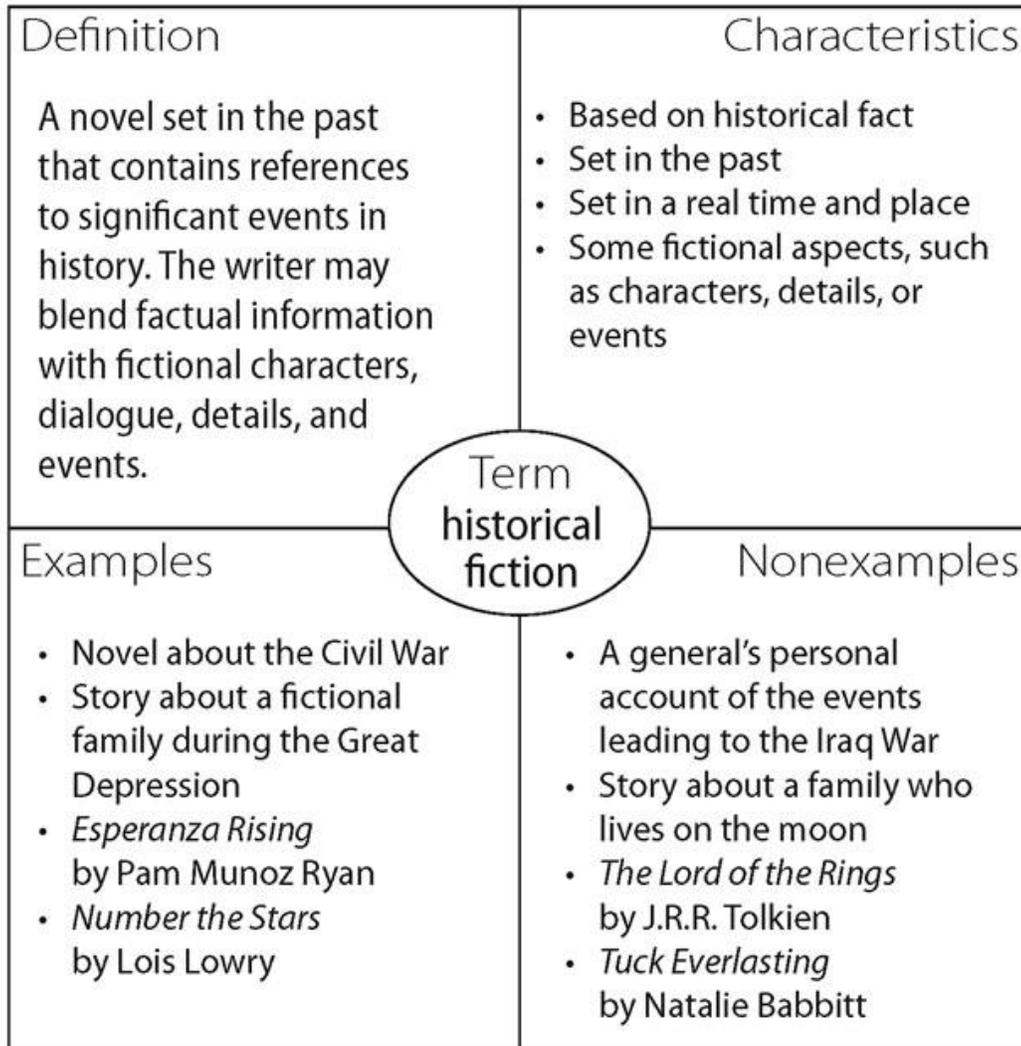Basic understanding of the word when read or heard (RECEPTIVE CONTROL)

Accurate use of the word in an appropriate context (grammar, nuance, connotation, register etc)

Full knowledge and control over the word (PRODUCTIVE CONTROL)

Appendix D: Concept Map

Concept Map (Frayer model adapted)

Definition of word in your words	Facts/Characteristics
Examples	Non-examples
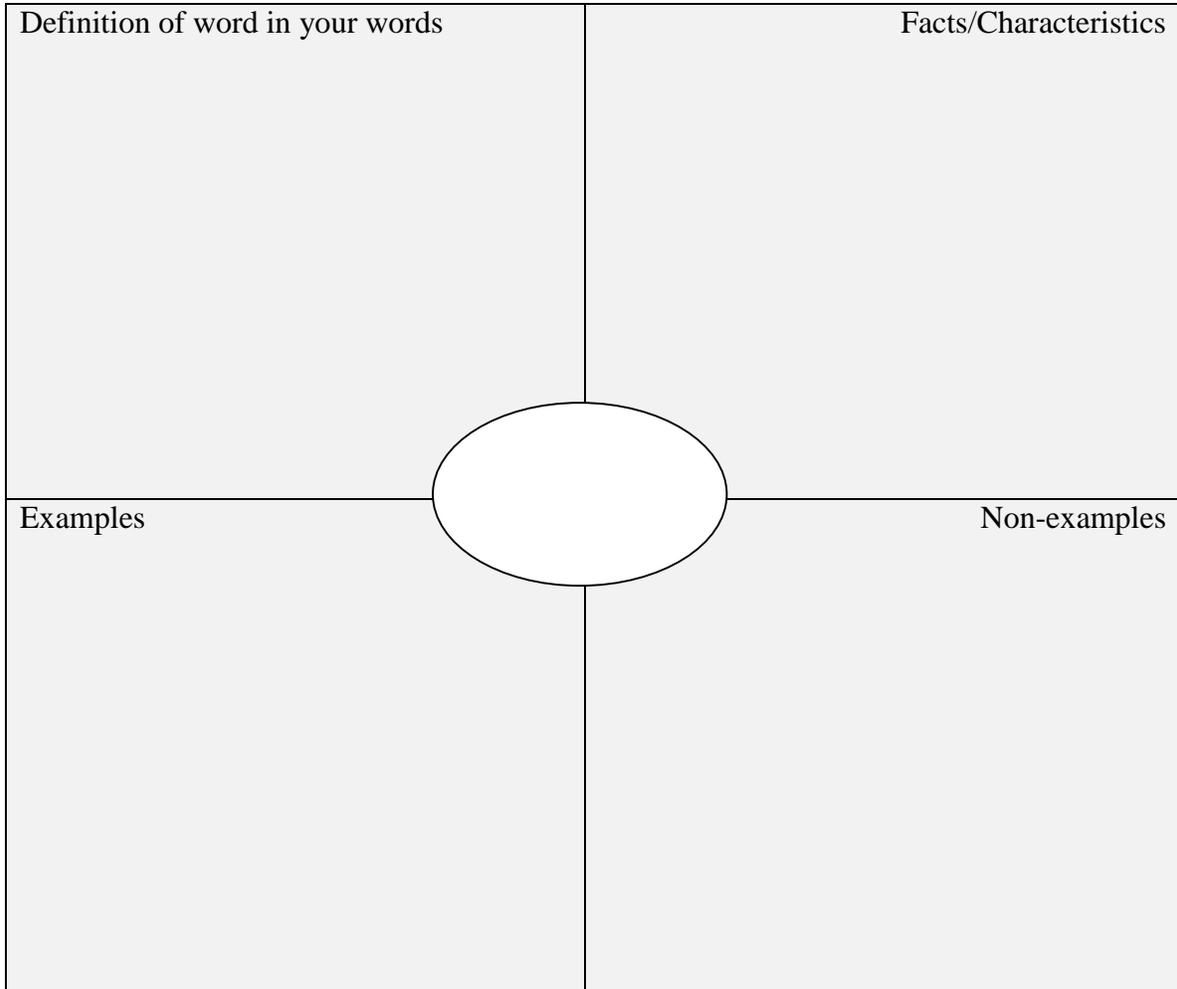
Appendix E: Frayer Model

Completed Frayer Model:
English Language Arts Example

Definition	Characteristics
A novel set in the past that contains references to significant events in history. The writer may blend factual information with fictional characters, dialogue, details, and events.	• Based on historical fact • Set in the past • Set in a real time and place • Some fictional aspects, such as characters, details, or events
Examples	**Nonexamples**
• Novel about the Civil War • Story about a fictional family during the Great Depression • *Esperanza Rising* by Pam Munoz Ryan • *Number the Stars* by Lois Lowry	• A general's personal account of the events leading to the Iraq War • Story about a family who lives on the moon • *The Lord of the Rings* by J.R.R. Tolkien • *Tuck Everlasting* by Natalie Babbitt

Term
historical
fiction

Word map with multiple connections and associations

What is it?

Definition

The New Word

Example
/association

Color, symbol, or
picture

Derivatives,
word families

Sentence,
dialogue, or
expression to be
used with the new
word
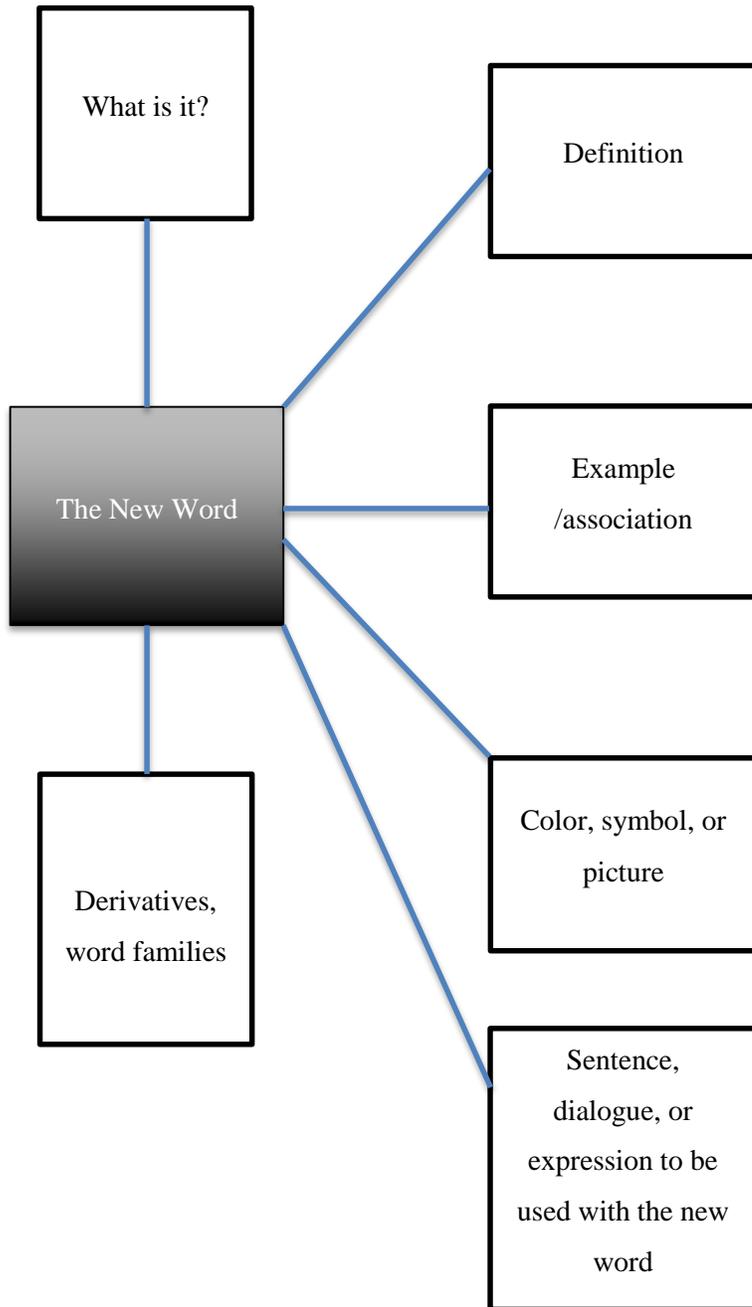
Appendix G: Semantic Map

Semantic Map–a type of graphic organizer (Johnson & Pearson, 1984)

Semantic maps are visual representations where the lines connect a target concept to categories that are either related events or ideas connected to the concept.
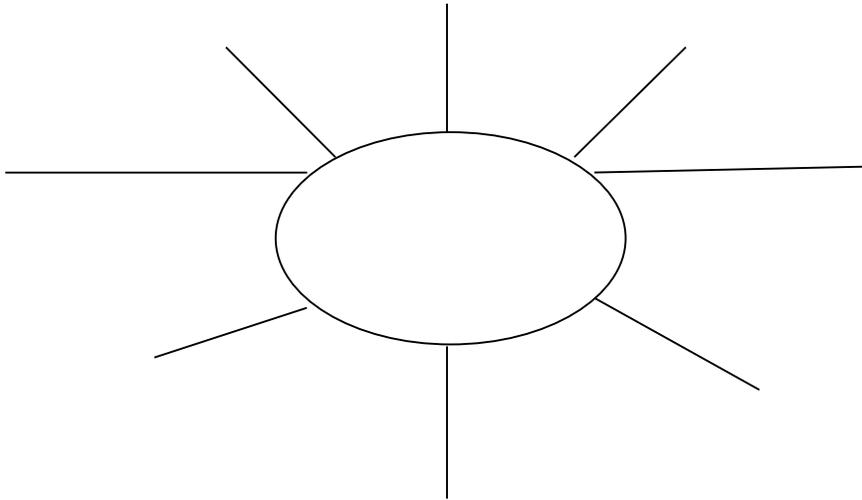
Evaluation form

To assess the quality of this workshop and help provide feedback to make changes or

improvements, please complete this questionnaire.

Position	Years of experience: _____
	Prior level of knowledge to workshop:
- Primary classroom teacher - Secondary classroom teacher - Adult educator - Administrator	- Little - Some - Knowledgeable - High level of knowledge and experience
Level of participation in this workshop	
- Low - Average - High	
Workshop content: This workshop helped me…	
- Reflect on my classroom practice in relation to teaching vocabulary - Learn the practice of a strategy to teach vocabulary	
Comments regarding this workshop, learning, facilitator, and duration	