LITERATURE REVIEW:

ENGLISH LANGUAGE LEARNERS AND ACADEMIC VOCABULARY

By

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To Alexandra and Andre who are my inspiration, joy, and light. I return to my family in full capacity who has most graciously shared their mother, wife, and playmate.

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CHAPTER ONE: INTRODUCTION

In my first year of teaching Economics to inner-city 12th graders, it became immediately clear that academic language acquisition, including content vocabulary, was imperative to learners' access to not only the printed materials, but to the concepts themselves. Half of my class was newer immigrant students with limited English proficiency, while the other half were native speakers with literacy levels equivalent to third or fourth grade.

I witnessed first-hand the frustration and silence of students who simply could not formulate coherent sentences. These young adults *knew* what economics was about; they were intimately associated with the reality of scarce resources and the struggle to fulfill one's wants and needs. However, they lacked the language structures to articulate the process of supply and demand or how an increase in price affects demand. So without an SLA background, or without a model of vocabulary teaching, I took it upon myself to muddle through what essentially is the focus of this paper: How to teach diverse students academic vocabulary to maximize student engagement and learning.

Importance of Vocabulary Instruction

Vocabulary instruction is an integral facet of language acquisition. Most individuals have learned about 15,000 words by early adulthood in their native language with the vast majority of these words having been acquired incidentally through inferential meaning of words based on context (Pressley, 2006). Young children are rarely taught vocabulary through direct instruction when learning their native language. For second language teachers, the notion of teaching vocabulary has traditionally been one of

utilizing a dictionary with relatively few deviations from a superficial treatment of the word. This method has been re-evaluated with modern research focusing on the effectiveness of explicit, context-embedded vocabulary teaching with activities that promote interaction and academic thinking, speaking, and writing (Miller & Gildea, 1987 as cited in Pressley, 2006).

With the recent wave of No Child Left Behind (NCLB) standards and increased literacy standards nationwide, vocabulary persists to be an inherent component of academic achievement for English Language Learners (ELLs) and Native English Speakers (NES). Beginning as early as second grade, students are expected and required to negotiate academic vocabulary such as 'compare and contrast' language structures (National Common Core Standards, 2011; Saint Paul Public Schools, MN, 2012; South Washington County Schools, MN, 2012).

Classrooms throughout the country are more diverse than ever with non-English speakers a growing percentage of the population. Mainstream K-12 teachers are on the front lines for literacy instruction that will benefit ELLs and NESs in mixed classrooms. The population of ELLs in public schools in the United States grew from 4.2 million in 1980 to 11.2 million in 2009. Currently, approximately one quarter of all public school children are ELLs (National Center for Education Statistics, 2012; U.S. Department of Education, 21012). Effective vocabulary instructional models should be informed by research that includes diverse populations and reflects the demographics of the nation as a whole.

ELLs have a dual set of language skills to learn exacerbating their cognitive load in school. They have to acquire Conversational language, also known as Basic Interpersonal Communicative Skills (BICS), and quickly acquire Academic Language used in school (Cummins, 2000). Furthermore, while building the specified Academic Language, they must use that language in meaningful ways and perform on high stakes assessment measures. Additionally, students with no previous literacy in their first language are learning how to 'do school' with limited language skills.

In upper elementary classes and beyond, the teaching of reading and writing is commonly thought of as only the Language Arts teacher's job or that of the ELL teacher in pull-out groups. However, as Zwiers puts it, “Reading is your thing (even if you're not a reading teacher)” (2011, p.543). The area of academic vocabulary is of importance not only to remedial reading teachers, but to mainstream classroom teachers who want to maximize their instructional time and support a variety of learners at all literacy levels. Even in heterogeneous classrooms there is a wide sampling of abilities and learner styles. At some point in time all mainstream teachers will have ELLs in their classrooms and can benefit from sound research-supported teaching strategies.

Academic Vocabulary

Academic vocabulary words are specialized words present across the curriculum and throughout grade levels. In Coxhead's (2000) work on compiling the most common academic words, she lists *analyze*, *concept*, and *data* as some of the most frequent word families . Students in every classroom across the United States will be asked to *analyze* or write about a *concept* from elementary to high school. State and national standards

incorporate many of these frequent academic words into standardized assessments such as the MCA or ACT tests. A given essay prompt from an ACT workbook asks the student to *analyze* the effects of joining an after-school club (Barron's ACT Workbook 2009).

Academic vocabulary differs from content vocabulary in nature and process. Content vocabulary is context-bound within the content of science or social studies. For example, the word 'magma' is special to the science curriculum and is usually found only in science texts. A student is expected to know the definition of magma simply as it relates to hot lava.

Academic vocabulary however, is encountered at every grade level and all subjects. An academic word such as 'topic' can mean many things based on the subject and task. Students need to not only know the meaning of 'topic' but be able to use the word on performance measures such as writing or speaking on a given 'topic'. Academic vocabulary demands conceptual understanding and content specific understanding when asking a student “What is the author's topic?”.

Academic vocabulary in content classes poses special challenges for ELLs. English Language Learners are learning abstract and distant concepts with limited contextual support. The nature of social studies texts and other content area texts require prior understanding, historical background knowledge, and implicit conceptual understandings.

Zwiers (2007) credits Cummins (1979) for the distinction between 'cognitive academic language proficiency' (CALP) and informal 'basic interpersonal communication skills' (BICS). Zwiers refers to this 'cognitive' language as a dialect in its own right. It

acts as the conduit for describing cognitive processes, complex relationships, abstract academic concepts, and inferential meaning in oral and written language (Zwiers, 2007). Academic vocabulary acquisition takes on a greater importance when viewed in context as similar to acquiring another language.

Explicit Instruction

Much research has been devoted to K-12 vocabulary acquisition in recent decades. Most recently, traditional models of vocabulary instruction have been expanded to include research on content specific vocabulary and academic vocabulary with regard to content area learning and academic skills.

Vocabulary instruction for ELLs in mainstream elementary, middle, and high school content classrooms is essential for comprehension and language learning. Enhanced vocabulary acquisition provides access to texts and supports academic reading and writing. Furthermore, academic vocabulary acquisition can increase achievement on standardized assessment measures (Carlo, August, Mclaughlin, Snow, Dressler, Lippman, Lively & White, 2007; Donley & Reppen, 2001; Silverman, 2007; Townsend & Collins, 2009; Zwiers, 2008 and 2011) and lead to greater reading comprehension in general.

Content specific texts and academic language require specialized vocabulary and processes. Explicit teaching of language in context with authentic use maximizes student learning and academic engagement (Silverman, 2007). Students who learn the skills to deconstruct words can transfer these metalinguistic skills across the curriculum (Carlo et al., 2007). As referenced, research shows a strong correlation between academic vocabulary acquisition and increased academic success. Donley and Reppen (2001) go so

far as to claim that academic vocabulary words such as *exhibit* or *acquire* are even more important for student success than science content words like *metamorphic* or *igneous.*

Word-analysis Instruction

Included in recent models of vocabulary instruction is the explicit teaching of word-learning skills. The paradigm for vocabulary instruction for ELLs and mainstream students has shifted and expanded to encompass a broader view of how students decode, learn, and use target words that enhance their understanding of content texts and increase academic success in general. Beyond teaching about words, the most effective studies show how interacting with these words scaffolds student learning and increases students' success and language skills in all modalities: reading, writing, speaking, and listening (Carlo et al., 2007; Pantaleo, 2007; Schleppegrell, Achugar, & Oteiza, 2004; Townsend & Collins, 2009). Students who are able to analyze a word's root, prefix and suffix have an increased ability to know the word and use the vocabulary item in multiple settings and varied permutations.

Engagement in Academic Talk

The process of teaching vocabulary is as important as the words themselves. Learning occurs through linguistic negotiation: talk. Unfortunately, recurring studies continue to show that teacher talk dominates the majority of classroom interchanges (Allyson, 2000; Gardner, 2007; Mercer & Hodgkinson, 2008; Schmitt, 2008). When student talk is counted and recorded, the overwhelming majority of language used is answers to display questions and superficial “recitation script” (Hardman, 2008). Mercer reveals how “surprised” he was with regard to the high amount of teacher talk verses

student talk in classrooms during his own tape-recording of his teaching (Mercer & Hodgkinson, 2008, p.13), demonstrating the powerful norm of teacher-centered and dominated talk. Even researchers who are committed to increasing student discussion fall into the teacher-talk trap.

Guiding Questions

This literature review explores the efficacy of explicit teaching of academic vocabulary and the impact engaging in academic talk has on academic vocabulary acquisition. Given the importance of academic vocabulary acquisition to positive learner outcomes for ELLs and native English speakers in mainstream K-12 classrooms, there is an increasing amount of analysis devoted to models of vocabulary instruction. The following research questions guide this literature review: What does research say about academic vocabulary instruction that fosters student engagement in academic talk and explicitly teaches word-analysis skills? How can expanded academic talk support academic vocabulary acquisition?

Purpose of the Research

The goal of the research is to inform mainstream and ESL teachers about the importance of explicit vocabulary instruction and effective models of vocabulary instruction. Classrooms are diverse and require research-supported models of vocabulary instruction that benefits all students. By reviewing studies that highlight effective interventions, teachers can begin to understand how vocabulary instruction fits into second language acquisition and inform their teaching in increasingly effective and equitable ways.

Summary

This chapter introduces a model of explicit vocabulary teaching in diverse classrooms with ELLs and native English speakers. The importance of vocabulary is established as well as the process through which students learn vocabulary. The most effective studies highlight the importance of interaction with the target word as well as interaction with others using target vocabulary. There is an abundance of research on the topic of vocabulary acquisition to draw from to inform teaching and encourage active, judicious decisions when teaching vocabulary in K-12 classrooms.

Chapter Overviews

In Chapter One, I introduce the topic of vocabulary instruction for ELLs and native speakers in mainstream K-12 classrooms. An expanded definition of vocabulary instruction is presented incorporating explicit teaching of word learning skills, context-embedded instruction, and ample amounts of interaction for students to learn the target words. Academic vocabulary is highlighted as central to any instructional setting as a key to student success in content and mainstream classes.

Chapter Two presents an overview of the research on explicit vocabulary instruction for ELLs and native English speakers. The importance of vocabulary instruction is established with attention paid to the theoretical foundations that support the importance of student talk and student interaction with target vocabulary words. Current approaches to vocabulary instruction are covered and discussed in relation to what research has been put forth as effective for ELLs in diverse K-12 classrooms.

After providing the background theory for vocabulary instruction, Chapter Three outlines the data collection process and reasoning for this literature review. The final sections of this paper highlight the results of the review of research in order to inform educators and the teaching profession in general, moving towards the ultimate goal of increasing academic success not just for ELLs in mainstream classrooms, but all students as part of a diverse and equitable school system.

CHAPTER TWO: LITERATURE REVIEW

The goal of this paper is to examine studies of evidence-based vocabulary instruction to improve the academic success of ELLs and mainstream students in K-12 classrooms. The acquisition of content and academic vocabulary predicates comprehension and increases achievement across the curriculum. The explicit teaching of academic vocabulary is essential to any model of classroom instruction. Furthermore, the successful acquisition of academic vocabulary is increased when students can engage in extended academic talk with target vocabulary. To achieve this goal, I provide my guiding questions: What does research say about academic vocabulary instruction that fosters student engagement in academic talk and explicitly teaches word-analysis skills? How can expanded academic talk support academic vocabulary acquisition?

The subsequent literature review will provide a foundation for understanding vocabulary acquisition and why it is an important aspect of classroom instruction. This will lead, in Chapter Four, to a synthesis of the vast amount of research on the topic of vocabulary instruction. This chapter initially outlines traditional theories on second language acquisition. Second, explicit vocabulary instruction is explored with a description of academic vocabulary as it pertains to the special academic needs of ELLs and mainstream students in K-12 classrooms. A brief treatment of functional systemic linguistics is offered to attend to the vocabulary challenges of texts and classroom demands. Lastly, research is included on how students construct knowledge with regard

to a student engagement model of learning comprising extended academic talk as a means to acquire and use academic vocabulary.

History of Second Language Acquisition Research

There are many theories about Second Language Acquisition (SLA) and *how* students learn. Hudelson and Gersten (2005) outline the progression of research and theories in the field. Early Behaviorist theories coalesced around the psychology field incorporating the works of Skinner (1957) which focused on habit-forming instruction such as memorization and error-free drills. In the 1960s, research took a more social turn expanding on Chomsky's (1965) view of the child as an active participant in language learning with a built in ability to learn language. This idea of the child as the center of language development led to an explosion of research on the social aspect of first language acquisition and SLA. Krashen (1981) developed the idea of 'comprehensible input' to help scaffold learning along with Cazden (1988) who states that language above all, “is social” (as cited in Hudelson, 2005, p.35).

Vocabulary acquisition is an important part of SLA. It has far reaching implications for students. Knowing words, and how to use them is an integral key to academic success. Reviewing historical and current models of vocabulary acquisition can inform teachers and benefit students.

Research on Explicit Vocabulary Instruction

Academic vocabulary

Academic vocabulary differs from content vocabulary or 'traditional' models of vocabulary as it is not just content words such as *import* or *export*, rather, it is the "lifeblood of learning in all classes" (Zwiers, 2008 p. 10). Academic vocabulary incorporates words as mentioned earlier from Coxhead's Academic List (2000) such as *conclusion*, *enable*, and *generate*. It also combines vocabulary with the grammatical constructions, pragmatics, and word phrases that support explicit communication of ideas.

In Zwiers' (2008) study involving ELLs in mainstream middle school classrooms, he tracked students' language use to uncover the function of academic vocabulary verses informal school language and how it differs from basic conversational language use. He outlined three characteristics of academic language: It is intricately linked to higher-order thinking processes, developed by extensive modeling and scaffolding of classroom talk, and accelerated by weaving direct teaching of its features while teaching content concepts (Zwiers 2008). Zwiers conducts and adds to research on vocabulary instruction that explicitly teaches word-learning skills in tandem with extended academic talk.

Academic vocabulary is crucial to all areas of learning. Having working knowledge of what the vocabulary word *summarize* means is a skill that transfers across the curriculum and support academic success for years to come. Academic vocabulary items are used across grade levels and throughout a student's lifetime. One way a teacher can highlight essential academic vocabulary is through the use of corpus tools. Donley and Reppen (2001) use corpus tools to identify useful academic vocabulary items in

Sustained Content Language Teaching (SCLT). Further elements of their study will be addressed in Chapter Four, but the importance of choosing appropriate and the most useful of vocabulary items is important to ELLs and native English speakers.

Knowing a word

Teaching academic vocabulary has received a resurgence of attention due to the Reading First program as part of the No Child Left Behind Act of 2001 and 2002 that highlights vocabulary as one of the five elements of evidenced-based reading instruction (Pressley, 2006). Vocabulary teaching is emerging in earlier grades based on ongoing research that supports a longitudinal and recurrent approach to vocabulary acquisition (Carlo et al., 2007; Donley & Reppen, 2001; Hinkel, 2004; Pantaleo, 2007).

The ability to learn new vocabulary is important for greater educational success. Students who have the skills to identify, learn, and use new words can access texts and new information with greater inferential skills and increased accurate understanding. A substantial part of 'knowing' a word is the ability to deconstruct the unfamiliar word with word-analysis skills. Students who can identify root words for meaning along with prefix or suffix meanings have a greater likelihood of figuring the word out in and out of context (Nagy & Townsend, 2012). Chapter Four will further address the research and application of word-analysis skills.

Students need to be exposed to new academic vocabulary items repeatedly. Many studies such as ones by Carlo et al., (2007) and Townsend and Collins (2009), utilize similar methods of treatments by which they introduce five to twelve new words

each week then provide students opportunities to engage with the word multiple times over the course of the study.

Research suggests that there is a general number of new vocabulary items and frequency of instruction that students should be exposed to that maximizes learning and classroom efficiency. Hinkel (2004) proposes that second language learners need at least 10 to 12 repeated exposures to a given word to incorporate it into their receptive and productive vocabularies. Donley and Reppen (2001) introduce ten new academic words each week in their 28-week study while intentionally incorporating review words into classroom discussion and work. In Qian's (1996) study, he coins the term 'structured reviewing' to illustrate the systematic presentation of target words to increase retention. In his study, he demonstrates how repeated testing during treatment reveals greater word learning as 'structured reviewing' takes place for the 15 initial target words.

Beck, McKeown, and Kucan (2002) present a range of 'word knowledge' to define the depth of learning for a given vocabulary item.

1. No knowledge
2. General sense of a word, being able to know if a word has a negative connotation.
3. Narrow, context-bound, only able to know the word as it appears in the given context.
4. Having knowledge of a word but not enough recall to use it productively or appropriately.
5. Deep, decontextualized knowledge of the word, its relationship to other words, and metaphorical uses.

Learning a word in context is the initial step to learning the word for greater applications. Using Beck et al.,'s model of rich vocabulary instruction with regard to choosing the most appropriate vocabulary word, how to introduce it, how often to target the word, and what aspects of the word to draw attention. Townsend and Collins (2009) test Beck's model with ELLs in an after school program called Language Workshop. They present their study in light of The National Reading Panel's (2000) review of studies that included no ELL subgroups and offered “few empirical vocabulary intervention studies” (p.996). The National Reading Panel (2000) offers the following recommendation based on their own literature review on the subject:

“In accordance with the research findings on rich, extended instruction and multiple exposures to words, one emerging trend was the possibility that the mix of definitional and contextual approaches worked better than either method used alone”. (Ch 4, p 23).

Contextually explicit instruction

The Townsend and Collins (2009) empirical study utilizes a control group and two treatment groups comprised of a mix of middle school NESs and ELLs with pre and post test data. The focus of the intervention was the direct and explicit instruction of target words with multiple exposures to the words in a variety of contexts. Academic words were taken from the Academic Word List (Coxhead, 2000) and considered Tier 2 words based on the Beck et al., (2002) model. Using the Peabody Picture Vocabulary Test (PPVT), “significant gains” were reported post treatment. Furthermore, students who scored higher on English language proficiency tests pre-treatment also scored higher on

vocabulary acquisition measures post-treatment. This demonstrates consistent gains for learners based on their language proficiency upon entering treatment.

Similar to the Townsend and Collins (2009) study, Gardner (2007) tests previous research on the “tension between contextual exposure and dictionary definitions” for vocabulary acquisition (p. 332). Using dictionary definitions in the context of the given vocabulary item, Gardner uses a similar test to Townsend and Collins's (2009) PPVT, called the MC format to assess what a student 'knows' about a word. Again, Gardner's (2007) study reveals how above-average students with greater language skills, showed more gains than the average or below-average students with lesser language skills during and after the treatment.

Building on the conflicting views of vocabulary instruction, Qian (1996) tests whether contextualized or decontextualized vocabulary items are learned and retained in greater numbers for Chinese English Language Learners. His results show that post-treatment decontextualized words were retained longer, but with little depth of word knowledge based on Beck et al.,'s previously mentioned continuum of word knowledge. The words learned through context were considered to “deepen students' understanding of the word” and is a positive precursor to producing the word (p.28) Qian also notes how the cultural background of Chinese students and preferred learning style might suggest a positive affinity for rote vocabulary learning and cautions teachers to take into “serious consideration” student learning styles.

Functional Systemic Linguistics

Academic Language can take upwards of five to seven years to develop (Cummins, 1996 as cited in Brown, 2007). In an attempt to examine the level of academic language support ELLs receive in secondary sheltered content classes, Short (2002) examines how teachers in sheltered social studies classes address language, content, and discipline specific tasks. Using audiotapes and transcribed lessons, the data looks at how teacher discourse leads to greater understanding of content and language. The results show that out of 3,044 teacher utterances, only 20% focused on language development or explicit language skills. Overwhelmingly, attention focused on social studies content rather than the skills students need to access and process the content.

The importance of explicitly teaching academic vocabulary as well as content vocabulary is supported by Celce-Murcia and Olshtain (2000). They use Functional Systemic Linguistics to assist in uncovering the features of texts and what might "enhance the reading and interpretation" of a text by ELLs (p. 58). Content texts are more lexically dense and assume the reader has contextual background knowledge as well as the linguistic ability to figure out the rest. Celce-Murcia and Olshtain (2000) outline common difficulties ELLs have with dense texts. They cite nominalizations, content specific vocabulary, reference markers, connectors, and general cultural knowledge as grammatical and discourse features that cause difficulty for ELLs and mainstream students.

An expansive study by Schleppegrell et al., (2004) also uses functional systemic linguistic analysis to teach academic vocabulary. Known as the California History Social

Science Project, they test the effectiveness of combining explicit language instruction within middle school history classes of diverse populations. The qualitative study occurred over three years and incorporated student interviews, teacher in-service data, classroom observations, and analysis of linguistic demands based on the California History Standards. The focus of the study concerned ELLs and NES with regard to how they use written texts to access content, including analysis of the most common challenging linguistic functions within the history curriculum. Similar to the categories outlined in Unsworth (1999), Schleppegrell et al., (2004) cite three different kinds of meanings within the social studies curriculum texts: experiential (what is happening), interpersonal (participants), and textual (how information is organized).

The study focuses on the nature and use of abstract words in history texts. For example, the verb *upset* is used in an unusual way in the following sentence:

"The admission of a new state would *upset* that balance (of whites and slaves)"

History texts use uncommon linguistic conventions without offering any explanation or details. Schleppegrell et al., (2004) note in their study the overwhelming number of facts displayed in texts. Explicit connections or inferences are not offered and it is up to the student to make the meaningful connections.

The study also identifies functionally useful target words while expanding meaning beyond context to include word-learning strategies during the successful treatment. The study also provided extended practice using the target words in personal contexts using higher-order thinking tasks and productive opportunities.

Using the explicit teaching model presented by Short's (1994) research reviewed earlier in this paper, Schleppegrell et al., (2004) focus on vocabulary while “explicitly teaching linguistic cues of text structure” (p.69). They discuss the ongoing need for cooperative learning opportunities and graphic aids to assist student learning and practice.

Construction of Knowledge

Learning through engagement

The field of SLA has been informed by a wealth of research on language acquisition creating a solid base of knowledge and practices. There is a range of factors that recur throughout the literature as facilitating language learning, and thus vocabulary learning. Schmitt (2008) uses the term 'engagement' in his study of vocabulary instruction to highlight any activity that students engage in can be considered learning. The idea of engagement is based on the earlier work of Vygotsky (1962) that attests to the importance of talk in the construction of meaning through the use of language (as cited in Barnes, 2008). Central to the process of learning is the act of oral negotiation with others and self. Other researchers use terms like “interthinking” (Mercer, 1996) and “dialogic talk” (Hardman, 2008) to express the importance of collective construction of knowledge and the underlying social process of SLA. A key facet to Schleppegrell et al.'s (2004) research on the function of language in social studies texts is the social component of learning. In their study, they describe the kinds of linguistic situations students engage in to use target vocabulary and interact with texts and others. Schleppegrell et al., (2004)

theorize that language cannot be separated from its social context and meaning is dependent on the context.

However, a quantitative and qualitative study by Allyson (2000) examines the “disproportionately” small linguistic space girls have in the ESL classroom studied. Allyson (2000) analyzes the amount of produced speech and the quality and type of speech produced by girls. The results demonstrate how little the girls produced, and when they did, it was simple call and response or responses to tag questions. This notion of engagement is important as it relates to the overall objective of academic vocabulary acquisition.

Similar to Allyson's (2000) study, Hardman (2008), Mercer (1996), and Zwiers (2007) attend to the amount and type of student feedback in ELL and mixed classrooms. Their studies produce similar data attesting to the lack of productive speech by ELLs and the dominance of teacher-talk.

In the study by Wells and Ball (2008) as a part of the Developing Inquiring Communities in Education Project (DICEP), they study engagement in classroom academic talk and the conditions of inquiry that promote academic negotiation and students' “purposeful dialogue”. The DICEP project supports how student learning is tied to the amount of engagement students have with the target concept or vocabulary. Students who use or produce the target items, scored better on post-treatment assessments. They further suggest that the most important pedagogical change a teacher can make is to move away from teacher centered linguistic scenarios to ones that involve student inquiry and facilitate student responses.

Summary

This chapter provides a broad review of current research on the nature of vocabulary instruction, academic vocabulary features, and the use of functional analysis to support ELLs and native English speaking students, and the importance of learning vocabulary through interaction. As part of the learning process, research is presented to support the efficacy of providing extended activities for students to practice the aforementioned skills in a variety of tasks to solidify language objectives.

Given the amount and variety of research it is difficult to disseminate the information and succinctly highlight the pedagogical and instructional implications. However, through this capstone's literature review, empirically supported data is gathered and made immediately accessible for use with ELLs and NES in mainstream or pull out K-12 classrooms. The information presents consistent and recurrent effective strategies for teaching academic vocabulary to ELLs and native English speaking students. Based on this literature review, studies will be reviewed that explicitly teach academic vocabulary and word-analysis skills while structuring the classroom to facilitate engagement in academic talk for the purpose of learning and using target vocabulary items.

The defined research question is: What does research say about academic vocabulary instruction that fosters student engagement in academic talk and explicitly teaches word-analysis skills? How can expanded academic talk support academic vocabulary acquisition?

The next chapter describes the methodology used to collect data for this literature review. Included are details about the studies, including participants and the types of settings for the studies.

CHAPTER THREE: METHODOLOGY

This literature review is designed to explore and define a method of vocabulary instruction to teach ELLs in diverse K-12 mainstream classrooms. The following questions guide the research: What does research say about academic vocabulary instruction that fosters student engagement in academic talk and explicitly teaches word-analysis skills? How can expanded academic talk support academic vocabulary acquisition?

Chapter Overview

This chapter covers the procedure for data collection for this review of literature. Included is an explanation of how studies were chosen and appraised based on their qualitative and demographic features. A detailed account of collection procedure is included to facilitate others in their effort to reproduce the collection of data if desired.

Criteria for research

Utilizing a broad approach, studies were chosen that reflect the various demographics in ELL and mainstream populations such as ethnicity, native language, and geographic representation. Data is presented from a variety of ethnically diverse ELLs and native speakers. Research includes studies from students from around the world with multiple levels of English proficiency ranging from emergent to higher levels of English proficiency approximating native English speakers.

In an effort to approximate a mainstream classroom setting, data is gathered from a variety of studies incorporating ELLs in content classes as well as K-12 educational

settings. In searching for studies with ELLs in mixed classrooms, many were initially from elementary classrooms. Therefore, for a balanced approach, approximately half of the research focuses on middle and high school social studies, language arts, or science content classes while other studies utilize elementary students in various classroom teaching scenarios and environments. An effort was made to gather recent studies from the 1990s to the present. A few older studies were included based on their influence on contemporary research or because they were cited in recent articles as a basis for their treatment.

Procedure for collection

This literature review was compiled using multiple databases and a variety of print media. Research was gathered from ERIC, Education Full Text, JSTOR, Linguistic and Language Behavior Abstracts, WorldCat Local, Teacher Reference Center, and EBSCO databases. Books and published papers were also included to ensure a full examination of the research.

Articles were gathered from a diverse survey of peer-reviewed journals. Research was derived from journals such as *Reading Psychology, Reading Research Quarterly, Early Childhood Educational Journal, TESOL Journal, TESOL Quarterly, International Journal of Applied Linguistics, Language Teaching Research Journal,* and the *Journal of Education.*

As a substantial amount of research amassed, articles were noted for their similarities and contradictions and stacked in piles according to the population of

participants and general treatment. Within a given domain of treatment, for example, word-analysis, studies were keep on top of the pile that were most effective while the less effective studies were reserved at the bottom. Studies were considered 'most effective' that demonstrated gains in their treatments or showed positive correlations of their treatment and increased student learning of given target items. Summaries of each individual study were hand written on the initial abstract, while whole categories of studies were summarized as well in an effort to organize treatments in general categories dealing with ELLs: explicit academic vocabulary teaching, word-analysis instruction, student engagement, academic talk, and general content vocabulary or content specific instruction. If a study was a candidate for multiple categories then it was noted on the summary on the first page what general categories or topics is focused on. This system of collection allowed for efficient retrieval of information and ability to recognize strong relationships between studies and identify support for existing studies.

Approach to appraisal

The studies chosen for this literature review received careful consideration based on the guiding research questions. Keeping these questions in mind, studies were gathered that employed a treatment of explicit vocabulary instruction and provided K-12 students opportunities to use and produce the target vocabulary items. Additionally, the literature review identified the importance of teaching word-analysis skills as a conduit for vocabulary acquisition.

The goal of this study is to inform ELL and mainstream teachers in effective, equitable vocabulary instruction strategies for ELLs and native English speakers in mixed

classrooms. The studies reviewed comprise a sampling of qualitative, quantitative, case study, meta-analysis, and action research. Most of the studies used were quantitative or qualitative research, while about 30% were a mix of case study, meta-analysis, and action research.

A study was considered a 'good' candidate based on size and demographic of population, treatment over time, follow-up data, and use of multiple treatments. Studies were not chosen that had a smaller population than a class size, encompassed a narrow composition of students, and happened over a short duration of time. Bias was given to studies that employed multiple treatments across a variety of demographic and geographic areas. Additionally, a study was particularly desirable if it included post-treatments and longitudinal data.

Finally, to answer the research questions on how students best learn academic vocabulary, consideration was given first to studies that tested the efficacy of extended talk and student interaction to build academic vocabulary knowledge and practice word-learning strategies. Furthermore, an effort was made to obtain studies cited in reviewed research and examine the original study as it informed the current study in question. Consideration was also made to gather discussions or reviews of the chosen studies in hopes of illuminating support or dissent for the treatment to ensure a balanced review of the data. Once an article was chosen, a general search of the publication for that year often yielded research with a similar treatment or one with conflicting data. Articles with an adjacent rebuttal were included when found.

Conclusion

This chapter describes the criteria used in selecting studies for review. Using the guiding research questions, studies were chosen based on their ELL and NES participants, variety of classroom settings, and attention to providing extended interaction and talk for vocabulary acquisition and word-analysis instruction. The following chapter highlights the answers to the research questions and details educational implications.

CHAPTER FOUR: RESULTS

Research collected for this literature review came from a variety of books, journals, and published papers. Studies were judiciously collected to simulate a diverse classroom and various educational settings. Using this data collection as a tool, I sought to find the answer to my guiding questions: What does research say about academic vocabulary instruction that fosters student engagement in academic talk and explicitly teaches word-analysis skills? How can expanded academic talk support academic vocabulary acquisition?

To answer the research questions, the studies are grouped by their primary focus in relation to vocabulary instruction. Three groups of studies are presented: context-embedded explicit instruction, word-analysis instruction, and academic talk.

Context-embedded Explicit Instruction

Donley and Reppen (2001) represent a larger effort to test the efficacy of explicit vocabulary instruction for students learning English and content simultaneously. Using a corpus of words, the investigation yields positive findings linking the effectiveness of learning vocabulary within context repeatedly over the course of an academic year or extended unit of study. Studies by Beck et al., (2008), Carlo et al., (2004), Gardner (2007), Pantaleo (2007), and Qian (1996) highlight similar findings with regard to the increase in learning not only vocabulary, but also the content in which the vocabulary is embedded. These studies lend validity to the notion that multiple exposures to a word combined with

explicit teaching of the word provide students with an increased opportunity for learning and retention.

Donley and Reppen's (2001) study builds on established current corpus of academic words, including Coxhead's list (2000) while generating their own mini-corpus of anthropology vocabulary for the study. Both lists were cross-referenced by the researchers to maximize target word engagement and incidental learning. Words were chosen for explicit teaching based on their appearance on both the Coxhead's Academic Word List (2000) and Donley and Reppen's (2001) generated mini-corpus. After a 28-week instruction of academic vocabulary, students increased their academic vocabulary knowledge while initially learning content vocabulary. Ten words were introduced each week and reviewed on an ongoing basis as supported by previous research on vocabulary acquisition (Carlo et al., 2007; Beck et al., 2002, Qian, 1996). Pre- and post-tests show a positive relationship between learning an expanded repertoire of academic vocabulary and the increased ability to learn new content specific vocabulary. This study supports the notion that academic vocabulary acquisition skills transfer to other word-learning and academic tasks.

Using a functional systemic linguistic approach, Unsworth (1999) and Schleppegrell et al., (2004) explicitly test the validity of teaching academic vocabulary as it aims to facilitate student understanding of texts and academic language with secondary students in history and science mainstream classrooms. Analysis of the results show increases in student performance on post-test for comprehension, vocabulary, and writing extension activities. Similarly, Carlo et al., (2004) reports an increase in post-tests scores

for students after treatment designed to increase students' knowledge of academic language in texts. Results show how using a functional systemic linguistic model can teach students vocabulary words such as 'national', as well as the nominalization of 'nationalism'.

Word-analysis Instruction

Applying evidence-based strategies from previous research, Carlo et al., (2007) test the effectiveness of direct instruction of academic vocabulary words including word-analysis skills as it relates to improved reading comprehension and literacy for ELLs and NES in fifth grade mixed classrooms. Carlo et al.,'s (2007) Vocabulary Improvement Project study itself is one of great magnitude incorporating 254 bilingual and monolingual students across a three-year (pilot, treatment, and follow-up) span to validate findings. Attending to variance from site, subject, and teacher, all participants showed gains over time, site, and condition. Furthermore, as Townsend and Collins (2009) cite in their research of the Vocabulary Improvement Project, the study is influential as it "promoted significant growth on almost all literacy measures, including target word mastery, knowledge of polysemy, depth of word knowledge, and reading comprehension" (p. 997).

Silverman's broad study (2007) also tests the effectiveness of vocabulary instruction that specifically incorporates explicit instruction with meaningful receptive and expressive activities with ELLs and NES in mainstream Kindergarten classrooms across the country. In her quantitative study, she tests whether engaging children in

active analysis of word meanings is more effective short-term and long-term than "context bound" vocabulary instruction.

The method of Silverman's (2007) study tested three diverse groups of comparable kindergartens. Controlling for three separate forms of vocabulary instruction: context based, analytical, and anchored instruction. The context-only group was provided an explicit definition of the word and discussion was limited to the context of the current story read. The analytical group also received explicit contextual instruction, however, and expanded discussion included personal connections and extension of the word to other uses and contexts. Lastly, the anchored group included all the previously mentioned activities yet went one step further to attend to the phonological and orthographic aspects of the words that were intended to "enrich contextual and analytical instruction" (Silverman, 2007).

The results of Silverman's (2007) study at post-test reveal that students who were a part of the contextual group learned an average of 3 words out of 30 over the 6-week intervention while those in the analytical group learned an average of 5.9. The anchored group learned the most words at 6.7 representing a 22% improvement from pre-test scores. Noteworthy, in follow-up tests, the anchored group persisted to show "significant gains of 3.8 points" over the contextual and analytical groups.

As reviewed earlier, Schleppegrell et al.,'s (2004) research supports the efficacy of explicit teaching of word-analysis skills for ELLs and mainstream students. The results show that teaching students to break down a word and sound out its parts, root word, spelling, and syntactical function, is a skill that increases literacy and reading

comprehension. An important facet of Schleppegrell et al.,'s (2004) word analysis instruction is teaching multiple meanings within different contexts. They illustrate how helping students attend to multiple meanings based on content increases their own linguistic choices and construct meaning across the curriculum. As part of the word-analysis instruction during the treatment, manipulation of the word from singular to plural and past to future is represented. For example, the root word *defend* can also be used as *defending*, *defended*, and *defendant* (Schleppegrell et al., 2004).

The last study presented on explicit academic vocabulary is from Lawrence, White, and Snow's (2010) Word Generation program. Hesitant to use words taken solely from Coxhead's Academic Word List (2000) due the adult nature of the materials used to compile the Academic Word List, Lawerence et al., (2010) also use other corpora such as Word Count by Jonathan Harris to highlight frequent academic words. The 22 week program spanning five diverse urban middle school content classes, demonstrates student growth based on pre-and post-tests "equivalent to two years of learning during business as usual" (p 25). Lawrence et al., (2010) combine explicit teaching of context-embedded academic vocabulary along with word-learning skills then provide extended activities involving using the target words in writing, debate, and critical thinking exercises. Follow up assessments from the next school year showed generalized retention of the original 120 words learned during the treatment.

In summary, there is a substantial body of research supporting the efficacy of explicit and direct vocabulary instruction including word-learning skills to maximize student engagement and ultimate learning of target vocabulary items. There is readily

available research, including the aforementioned studies that support the long term effectiveness of teaching word learning strategies to ELL and native English speaking students to enhance vocabulary and language skills in general. They report positive correlations to the teaching of word-analysis skills and vocabulary acquisition.

Overall, the studies highlight that effective direct vocabulary instruction combined with word learning strategies are effective for ELLs, NES, and mixed language grouping in mainstream classrooms. Discussion of the instructional implications of this research will be addressed later in this paper.

Academic Talk

The strongest results for student learning are from studies that incorporate active, extended talk when learning academic vocabulary. Mercer (1996) sets out to test the linguistic conditions that promote successful acquisition of academic vocabulary and content. He specifically formulates his study around the theory that language is social and academic. Based off Mercer's work, Silverman (2007) and Pantaleo (2007) focus on think-alouds and 'interthinking' to explicitly teach and model academic thinking. In both studies, students were able to perform better on assessment measures for items that were used during group discussion over incidental vocabulary or non-treatment groups.

The ELLs in Short's (2002) study demonstrate gains during her treatment that focused on increasing academic English vocabulary and its use in core social studies content classes. Similar to aforementioned research, Short explicitly teaches the target language item (L) within content (C) and provides students a task (T) as the means of practicing and solidifying the skill. Classrooms with increased (T) showed greater

student gains in vocabulary and language production than those with lesser time spent on (T). The most important tasks for students in Short's study focused on social studies content tasks such as map skills, role play, interpretation of political cartoons, charts, original source readings, time lines, and outlines.

Reviews of research and meta-analysis by Carlisle (2010) and Schmitt (2008) corroborate empirical studies with regard to the positive correlation of extended academic talk and increased vocabulary acquisition after explicitly teaching the vocabulary item.

Summary of Results

In summary, the research on effective academic vocabulary instruction for ELLs and NES points towards a model of explicit, context-embedded teaching of the word along with teaching word-analysis skills. Also, studies that report greatest student gains build in carefully constructed student engagement in academic talk to incorporate the target vocabulary into their productive vocabulary. Students who engage in the negotiation of meaning of content, linguistic forms, and vocabulary show greater gains in vocabulary acquisition and generalized skill transfer.

Importantly, research demonstrates gains for all students in classrooms learning vocabulary items with explicit vocabulary instruction comprising word-analysis skills and opportunities for academic talk. Native English speakers as well as students learning English can benefit from the above strategies for improved literacy and academic vocabulary acquisition in an equitable and social mainstream classroom.

In this chapter I presented the results of my data collection. In Chapter Five I will discuss major findings, their pedagogical and curricular implications, and suggestions for further research.

CHAPTER FIVE: CONCLUSION

In this literature review I attempted to answer the questions: What does research say about academic vocabulary instruction that fosters student engagement in academic talk and explicitly teaches word-analysis skills? How can expanded academic talk support academic vocabulary acquisition? This chapter will present the major findings of the literature review along with research limitations. Implications for classroom teaching are addressed including topics for further research.

Major Findings

Explicit Content Embedded Vocabulary Teaching

Vocabulary knowledge is a key facet to reading comprehension and students' access to texts. ELLs and native English speakers alike can benefit from explicit vocabulary instruction that not only teaches new words, but more importantly, aims at "teaching about words" Carlo et al., (2007). Multiple studies like the Vocabulary Improvement Project of Carlo et al., (2007) reaffirm that incidental vocabulary learning is not a reliable way to promote vocabulary growth. When students transition from general learning to learning to learn specific content, the cognitive load increases and vocabulary items must be learned quickly and simultaneously alongside content and concepts. This creates a critical need for explicit vocabulary instruction embedded within the curriculum. The studies examined all highlight the importance of frequent and meaningful exposure to target words, use of word analysis strategies, and use of multiple vocabulary strategies to activate all four modalities and learning styles.

Frequent and ongoing practice with vocabulary items is imperative for students to truly learn and use new vocabulary. Repeated exposure is not just another permutation of the Behaviorist theory of drill and practice. Rather, it is the negotiation of meaning that happens when students use and produce expanded vocabulary items in multiple situations to support true fluency.

Word-analysis Instruction

The research strongly supports the long-term effectiveness of teaching word-learning strategies to students to enhance vocabulary and language skills in general. Teaching students to break down a word and sound out its parts, root word, spelling, and syntactical function, is a skill that supports language learning for years to come. An important facet to word-analysis is teaching multiple meanings within different contexts. Many studies showed increased comprehension and vocabulary acquisition when attending to multiple meanings within texts (Carlo et al., 2007; Schleppegrell et al., 2004; Short, 2002; Unsworth, 1999).

Silverman (2007) and Carlo et al., (2007) demonstrate significant growth for students after treatment that incorporated word-analysis instruction over other groups receiving minimal vocabulary definitions and those in control groups. Students were able to transfer word-analysis skills to other texts and performed better on literacy tasks in general.

Academic Talk

The most effective studies incorporated the element of extended academic talk focused on using and producing target vocabulary. Treatments that incorporated

intentional talk time proved the most effective. Essentially, any activity that leads to greater and deeper engagement with lexical items increases the students' exposure and manipulation with the target words. Zwiers (2007) notes that students use “academic language” most often when asked “cognitively demanding questions”. Requiring students to produce the target items is an immediate and accurate assessment of vocabulary learning.

Multiple studies illustrate that questioning as a discourse strategy is more effective when the *type* of questions are carefully scaffolded to encourage higher-order thinking (Carlo et al., 2007; Pantaleo, 2007; Short, 2002; Silverman, 2007; Townsend & Collins, 2009; and Zwiers, 2007). Engaging and facilitating cognitive processes is the foundation of learning and applying linguistic skills.

Implications

There is an abundance of research on vocabulary instruction in general, and for ELLs in particular. Several implications emerge that inform classroom pedagogy and curriculum choices.

Mainly, mainstream classroom teachers can positively affect the rate and quality of vocabulary acquisition for ELLs and native speakers in their classrooms. Successful treatments demonstrated gains for all students regardless of first language or English language proficiency.

Multiple instructional vocabulary activities are a must in an effective classroom. As illustrated, explicit focus on vocabulary is key when incorporated into a communicative environment that allows the students to engage in dialogue about the

vocabulary word. Teachers can intentionally build in tasks that challenge the student to negotiate meaning and participate in higher-order thinking and questioning to solidify the vocabulary item in the student's productive vocabulary.

Silverman's (2007) research during Read-Alouds illustrates the type of questioning that occurs during the most successful treatment. She engages the group in a deep discussion about the target word 'quarreled'. While holding up a picture card with the word and phonetic isolation of the phonemes, she asks “Were the frogs being friendly or mean when they quarreled?” “Why?”. This is an excellent example of employing multiple modalities of listening, speaking, and visual support to increase students' access to the text and vocabulary item.

Given the lack of student talk in classrooms, a key facet to successful treatments is the conscientious planning for student interaction with peers using the academic language. Moving beyond simple call and response interactions, students can interact with the content and vocabulary simultaneously to deepen their understanding and enrich the learning environment of their peers.

Visual and graphic support is crucial to enhance learning for ELLs. There are many activities that can be employed before, during, and after reading. Successful treatments integrated preview activities before reading, visual organizers during reading, and review questioning after reading to support deep understanding and extended engagement with vocabulary (Carlo et al., 2007; Schleppegrell et al., 2004; Short, 2002; Wells & Ball, 2008). Other instructional activities that enhance vocabulary learning for

ELLs and NESs include: graphic organizers, visual aids, and drama to promote involvement for even the most reticent students.

Vocabulary knowledge is a key facet to reading comprehension and student success. ELLs and NESs alike can benefit from explicit vocabulary instruction that not only teaches new words, but more importantly, is aimed at 'teaching about words'. Research has helped educators move beyond the standard dictionary version of vocabulary instruction and promote a rich process for introducing new words. Academic vocabulary is best learned and retained when it is used in a variety of activities, in meaningful contexts, over time, and with word learning strategies. Teaching students to analyze a word with regard to its morphology, spelling, pronunciation, cognates, syntax, and depth of meaning give students the skills needed to become active learners in the future.

Effective teachers want to help students be independent learners with transfer skills to become better readers, decoders, and language users. This is especially true for ELLs who have less inferential ability than native speakers and who need multiple contexts and interactions to learn a word.

In my class I want to identify academic vocabulary for explicit instruction to best support NES and ELLs. Once vocabulary is identified, I am aware of the importance of explicitly teaching students word-analysis skills while building in activities that require students to produce the vocabulary in extended discourse. It is my aim to include and support all learners to interact with their peers and the content in the most academically engaging way.

Limitations

A limitation of this literature review is a lack of studies on homogeneous ELL classrooms with a common native language. There is an abundance of research on ELLs and native English speakers in mixed classrooms with regard to vocabulary instruction. However, there is minimal attention to K-12 ELL-only classrooms. To balance the research, a variety of classroom settings is essential to support findings. Many of the studies are limited as they do not investigate the academic proficiency of students in their native language.

Further Research

Given the importance of academic talk, research is needed to investigate student learning as it occurs in their native language verses English. Does academic vocabulary need to be in English or can students learn it first in their native language then transfer that knowledge to English? Also, more studies need to be done with older students with interrupted formal schooling as it relates to their acquisition of academic vocabulary. It would be helpful to know how knowledge of primary language structure transfers to the academic language in American mainstream classrooms.

Would the type of academic talk be different with students who can communicate with each other in their native language? When communicating in their native language, a larger study could highlight the kind and frequency of vocabulary use amongst a homogeneous population. When English is not the language of the dialogue, can students

demonstrate increased learning through extended academic talk? It is unknown if the 'linguistic negotiation' must occur in English.

Conclusion

In setting out to investigate vocabulary instruction for ELLs in K-12 classrooms I found an abundance of insightful meaningful studies. Overwhelmingly, the most effective treatments incorporated three elements that I want to make a part of my teaching on a regular basis: explicit vocabulary teaching in context, attending to word-analysis skills for students, and providing ample time and structure for students to use and interact with the target vocabulary item.

I learned the importance of facilitating student dialogue with each other and the content. Educators often lament the amount of student talk in their classrooms, however, how seminal to learning it is to encourage students to talk in an academically appropriate way! Teaching students how to use an academic word, modeling, and providing guided support can foster increased participation and attendance to desired vocabulary.

To share my findings I plan to dialogue with my mainstream and ELL colleagues to discuss major pedagogical and content implications. As an ELL teacher, it is my responsibility to provide mainstream teachers with applicable suggestions for academic vocabulary items and activities to promote student talk. It will also be helpful to write a few short articles for our school newsletter and for a staff development day to highlight major findings and provide real lesson plans to help visualize what 'extended academic talk' looks like for elementary and secondary students. Most of all, it is my aim to serve as a reference point for mainstream teachers looking to advance their skills in working

with diverse populations in mixed classrooms. As a single ELL teacher for two buildings, it is imperative that I stay in the conversation and be present to help all students increase their language skills and success in their classrooms.

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