

Attitudes, Perceptions, and Knowledge - Academic Language and Academic Vocabulary of Pre-Service Teachers

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In recent years, there has been an emphasis placed on the academic language and vocabulary used in the classroom. Vocabulary and syntactic knowledge in oral and written language embodies specific skills that allow students to meet academic demands across the curriculum. Academic language often represents a range of knowledge of word definitions, understanding of word parts, and the nuances of vocabulary meanings. Proficiency in academic language helps students acquire new vocabulary and comprehend academic content material. This means teacher preparation programs must be preparing pre-service teachers to handle the complex and dynamic demands of teaching academic language and vocabulary.

INTRODUCTION

The number of students entering college underprepared to handle complex text continues to rise (Baker et al., 2015). Many students lack strong reading-comprehension skills due to a deficit in vocabulary knowledge and understanding of academic language structures, which can ultimately impact success in academic settings and professional workplaces (Baker et al., 2015). Vocabulary and syntactic knowledge in oral and written language embodies specific skills that allow students to meet academic demands across the curriculum. Academic language often represents a range of knowledge of word definitions, understanding of word parts, and the nuances of vocabulary meanings. Proficiency in academic language helps students acquire new vocabulary and comprehend academic content material. The characters of academic language, include:

- Morphologically complex words (words with multiple parts, including prefixes and suffixes) e.g., prediction, underlying, strategically

- General academic words that are high frequency and may be abstract or have multiple meanings, e.g., response, provide, focus, incorporate
- Discipline specific words e.g., inference, schema, analyze

Many students struggle because they are unable to use academic language successfully in school settings, often leading to early dropout or failure (Zwiers, 2014). Academic language is often composed of sophisticated vocabulary. Students who master academic language are more likely to be successful in academic settings and professional workspaces. Vocabulary knowledge, specifically academic vocabulary knowledge, is critical to ensure students are college and career-ready. The College and Career Readiness Anchor Standard (National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA & CCSSO], 2010) states students must “acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering an unknown term important to comprehension or expression.” Vocabulary plays an important role in students’ ability to understand the language used in academic readings and assessment. Most people tend to infer teachers have the knowledge and capacity to properly teach academic language, including academic vocabulary. Independent use of academic language requires teacher support and gradual release of responsibility so students learn how to use academic language independently. However, many pre-service teachers have not had adequate exposure or preparation to acquire and in turn teach academic language, even though academic language has been identified as a critical element associated with academic success (Neal, 2015, as cited Zwiers, 2008). Therefore, the purpose of this study is to examine the knowledge, attitudes, and perceptions pre-service elementary teachers at Sunshine University (pseudonym) have toward academic language and vocabulary.

Academic Language

Academic language is language that is used in the classroom and workplace; it is the language of context, text, discourse, and assessment. Academic language is the ability to not only understand content vocabulary, but also be able to understand the discourse, syntax, and structures involved when reading complex text or participating in academic conversations. Zwiers (2014) defined academic language as “the set of words, grammar, and discourse strategies used to describe complex ideas, higher-order thinking processes, and abstract concepts.” Vocabulary then, is only one component of academic language. Academic language is crucial for success in reading comprehension, which transfers to success in all areas of literacy. Knowing learning happens when the academic language needs of students are being met, makes it crucial for pre-service teachers to understand the importance of examining academic language and the functional use of academic language within each lesson, assignment, task, and discussion. Lucas et al. (2008) postulated pre-service teachers need to have the “willingness and the skills” to examine academic language and identify that language and learning cannot be separated. It is ongoing, systematic instruction used to expand academic vocabulary.

Academic Vocabulary

Vocabulary knowledge is our ability to understand and comprehend the meaning of words. Vocabulary knowledge plays an important role in the student's ability to understand and apply the language used in academic settings. Academic vocabulary refers to the knowledge and understanding students have of words in order for them to successfully engage with and have discussions around text (Brozo & Simpson, 2007). Beck (2013) refers to these as Tier Two and/or Tier Three words. Beck, McKeown, & Kucan (2013) positioned the organizational framework for categorizing words into three separate tiers. Tier One words contain words used in everyday speaking and should not require explicit teaching when students begin school. Tier One should be part of students’ everyday vocabulary. Tier One are words used in everyday conversation. Tier Two words are more complex vocabulary; words students are most likely to see more frequently across content areas in various texts. These words are crucial for students to learn in order to develop academic success. Tier Two words are general academic words

which have a high utility across a multitude of topics. For example, *justify* or *predict* can be used in reading to predict the outcome of a story or to justify word choice. Whereas in science predict is a quantitative statement in which one might predict what might happen under certain circumstances and then justify why. Tier Three words are extremely complex and domain specific vocabulary. They are often specialized words that appear in specific fields or content areas. Students would only need to know these words when studying a specific content. An example would be the word, metacognition. Pre-service teachers would require vocabulary knowledge of metacognition as they plan and develop lessons for their students (Beck, McKeown, & Kucan, 2013).

Beck (2014) explains the only criteria for teaching complex vocabulary is the student must know the underlying concept of the word. For example, if pre-service teachers know the vocabulary word *support*, they can be taught the more complex term *scaffolding*. According to Beck (2014), teachers must be able to explain the word in everyday English, using words that are less complex than the word being taught. This is increasingly more difficult as pre-service teachers must acquire the language in a brief period of time (one semester), take ownership of the academic vocabulary (academic discourse), and use it as a complex term (professional writing) and be able to explain the word in simpler terms for students (lesson plans). It is important to understand the vocabulary gap and, not only *why* vocabulary should be used but *what* vocabulary words should be taught. In order to adequately address the academic vocabulary students, need to encounter to be successful in school, pre-service teachers need to have a strong foundation in their preparation of academic vocabulary, so they are able to apply this knowledge when they enter the teaching profession.

Literature Review

Academic Language is a meta-language that helps students learn the 50,000 words they are expected to have internalized by the end of high school and includes everything from illustration, chart literacy to speaking grammar and genres within the fields (Finley, 2014). It usually requires students to transition from social language to more sophisticated language which involves the use of discipline specific vocabulary.

Student vocabulary skills are directly linked to economic backgrounds (Hart & Riley, 1995). Students do not come to the school adept in academic discourse. Most students do not walk into classrooms with the tools necessary to engage in purposeful, academic conversations (Miller, T., 2017). Therefore, teachers must advocate for equity. The vocabulary gap can no longer be ignored. This is a critical aspect of literacy for students who have fallen behind in the conceptual development of language. The Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers [NGA & CCSSO], 2010), recognized the importance of academic language and vocabulary postulating “Closely related to text complexity and inextricably connected to reading comprehension is a focus on academic vocabulary: words that appear in a variety of content areas (such as *ignite* and *commit*)” (n.a.). Consequently, these standards are expected to be met by all students, making it difficult to ignore the importance of teaching academic language and vocabulary in the classroom.

Students who read fluently in English sometimes have trouble understanding science texts. Most often the teachers who teach science, especially in elementary school, are ill prepared to guide students through the reading with the academic language of which information is presented. Snow, (2010), makes the argument that students need to be taught academic language in order to read science and other subjects. Snow (2010, p. 451) further states that academic words should be embedded in interesting topics and provide materials for teachers of science, mathematics, and social studies to extend the academic language focus across the curriculum. This strategy would enable students to read academic materials on their own thus accomplishing the goal of understanding words in the content area. For this reason, teachers must have a strong working knowledge of the complex language demands and content-specific vocabulary students need to engage with to find success in education. This means teacher preparation programs need to be diligent and successfully producing pre-service teachers who can meet the instructional demands of the classroom.

In a recent article, Galguera (2011) stated fluency in Standard English does not equate to academic success. The article also explained the challenges of students needing to be able to recognize and use the features and functions of academic language in order to be successful. Galguera (2011) continues to express the need for teacher preparation programs to emphasize teacher's knowledge and understanding of teaching techniques needed for the expansion of language development and the academic purpose of language in all forms.

Studies are showing lower performing students are starting kindergarten so far behind their average-to-high performing peers that not only are they unable to "catch up", they are falling further and further behind (Biemiller, 2003; Biemiller & Slonim, 2001). According to Biemiller (2003), considerable differences in the amount of words students know, is apparent by the end of second grade. In one of his many studies on vocabulary acquisition, high performing students knew an average of 7,100 root words by the end of second grade (Biemiller, 2003). In contrast, the low-performing students knew an average of only 3,000 words- a difference of about 4,000 words less than their high performing peers (Biemiller, 2003). Consequently, by the end of fifth grade, the lower-performing students had still not learned 7,100 root words—the amount of words already reached by high-performing children at the end of second grade (Biemiller & Slonim, 2001).

There is potential for the vocabulary gap to become disastrous for students who are missing the foundational word knowledge necessary to find success when encountering complex curriculum (Flanigan, Templeton, & Hayes, 2012). Some suggest this "gap" between lower-performing students and higher-performing students must to be addressed and corrected before third grade for students to find success throughout school and their future careers.

Neal (2015) claims students enter college with language resources that have sufficiently gotten them through past educational experiences and various social situations. Neal goes on to write that many of these students are not prepared in terms of academic language proficiency for the vast majority of disciplines they will begin to encounter (Neal, 2015). This is important to consider in the education field because pre-service teachers will need to have proficient academic language knowledge to find success in teaching. Additionally, making the matter more complex, pre-service teachers will also need to be successful at teaching academic language.

Teachers must be creating settings to prepare students for the future and the classroom should create an environment which engages students in problem-solving, creative activities (Boyd-Batstone, 2013). Honan (2015) stated teachers today must be able to cope with a diverse range of abilities and experiences. In order to ensure teachers are able to meet the instructional demands needed to teach academic language and vocabulary, it is imperative teacher education programs are preparing pre-service teachers in these areas with strategies based on rigorous, evidenced-based research. Using a variety of research based teaching methods such as concept maps, read a-louds, and word learning strategies will help to advance educational equity. Therefore, preparation is critical in teacher preparation programs. Pre-service teachers need a variety of research based teaching methods to support and scaffold the acquisition of new vocabulary. Pre-service teachers need to know the best instructional techniques for teaching academic language and the corresponding vocabulary, especially interventions for the lower-performing students, if we are going to see a change in the current trends.

THEORETICAL FRAMEWORK

Bruner (2006) believed learning was an active process from which humans built new knowledge from their current and past knowledge. This theory relied heavily on the idea that complex cognitive structures provided the schema, experiences, and awareness humans needed to construct meaning. This active construction of meaning leads to new learning and new ideas.

For the purpose of this study, knowledge of academic language and vocabulary will be looked at through the lens of how pre-service teachers are able to construct new levels of knowledge about the complex language structures based on current and previous knowledge. As pre-service teachers engage in the active process of learning complex language structures and content-specific vocabulary they should be

actively constructing knowledge rather than passively acquiring words. As Bruner (2006, p. 175) theorizes, it is “the art or science of arranging cultivated knowledge so that it may more easily be grasped and more easily be used in thought” which drives the pre-service teachers’ contextualization of learning academic language, including academic vocabulary.

Over the course of the semester, pre-service teachers are expected to acquire complex language structures in order to effectively engage in academic discourse, including being able to use this knowledge to engage in academic writing. They must also take this one step further and transfer their knowledge of academic language and vocabulary to a classroom setting, where they appropriately scaffold the language to meet the needs of their students, while also providing opportunities for their students to engage in academic conversations using the complex language structures and content-specific vocabulary. The actions described are grounded in Bruner’s theory of constructivism. Bruner (2006, p. 115) writes in his collection of essays titled, *In Search of Pedagogy*:

“It is only in a trivial sense [he wrote in 1965] that one gives a course to ‘get something across,’ merely to impart information. There are better means to that end than teaching. Unless the learner also masters himself, disciplines his taste, and deepens his view of the world, the ‘something’ that is got across is hardly worth the effort of transmission.”

This study sought to explore the knowledge, perceptions, and attitudes of pre-service teachers in order to better understand how pre-service teachers are acquiring and mastering the academic language of their field and deepening their view of how to engage students in the complex academic discourse needed to be successful in academic and professional settings.

METHODOLOGY

This study used a mixed method case study methodology (Stake, 1995) to identify and describe the changes that took place over the course of a teaching semester as pre-service teachers developed academic language and academic vocabulary for professional writing assignments, academic discourse and the construction of lesson plans. Pre-service teachers in their second reading course in the Elementary Education Program in the Southeastern United States were participants for the study. They were predominantly female, with one male pre-service teacher. All pre-service teachers maintain academically sound grade point averages and were expected to meet the expectations of their program, including all coursework assigned by their professor, which were examined for this study. Pre-service teachers signed consent forms to participate and had the option to withdraw at any time during the course of the study.

Our analysis of data indicated a wide range of academic language and vocabulary typical of many pre-service teachers. Hannah, Lillie, Sophia, Cindy, and Holly (pseudonym) served as case studies within a larger teacher development research project. These five pre-service teachers represent a broad sampling of the larger population (n=38). Data collection for this research project includes the following: Pre-and-post surveys, lesson plans, discussion postings, and analysis of student learning writing assignments.

Our data analysis consisted of three iterations. First, we focused on identifying pre-service teacher’s perceptions and attitudes toward academic language and vocabulary. We sought to see what changes, if any, could be identified over the course of a semester. We drew from the larger population (n=38) of pre-service teachers and then narrowed down our results to identify five students to tell a deeper story. Second, we sought to identify levels of understanding as students acquired language and vocabulary to apply complex vocabulary and language within professional writing assignments, academic discourse and the construction of lesson plans. Third we sought to determine if there was any direct correlation between student attitudes and perceptions of academic language and vocabulary to the changes identified over the course of a semester.

The following questions were used to explore the relationship between student’s attitudes and perceptions of academic language and vocabulary and the changes that took place during the academic semester.

1. How do the knowledge pre-service teachers have of academic language and vocabulary change over the course of an academic semester?

- 1a. How do the perception pre-service teachers have of academic language and vocabulary change over the course of an academic semester?
- 1b. How do the attitudes pre-service teachers have of academic language and vocabulary change over the course of an academic semester?

Data Sources

The data sources are designed to produce a snapshot or picture of pre-service teachers as they acquire the academic language and academic vocabulary. To determine attitudes and perception a survey was administered to gain a baseline to determine if there were any changes over the course of an academic semester. Additional data sources included: lesson plans, discussion postings, and analysis of student learning writing assignments.

Results

This study sought to explore the relationship between students' attitudes and perceptions of academic language and vocabulary, including the changes that took place during the academic semester using the three iterations listed already described. A pre-survey was administered to develop a baseline measurement of students' knowledge, perceptions, and attitudes of academic vocabulary and language. The survey consisted of nine questions which included six Likert-rating scale questions and three open ended text-response. The Likert questions ranged from 1 being extremely uncomfortable to 10 being extremely comfortable. To show the overall tendency, statistical descriptions of the reported comfort levels, preparation to teach, and importance are shown in Table 1. The mean score (M) and the standard deviation (SD) of the overall responses of these six items are shown below.

**TABLE 1
PRE-SURVEY RESULTS**

Survey Questions	M	SD	%
How comfortable are you with teaching academic language?	5.18	1.35	57.9%
How comfortable are you with teaching academic vocabulary?	5.76	1.53	44.73%
How do you feel the education courses at Sunshine University prepared you to teach academic language?	5.66	1.75	39.47%
How do you feel the education courses at Sunshine University prepared you to teach academic vocabulary?	6.00	1.85	39.47%
How important is it to teach academic vocabulary?	8.18	1.54	100%
How important is it to teach academic language?	8.47	1.55	100%

Note. M=Mean; SD= Standard Deviation; %= Percentage of scores 5 points or more

To identify pre-service teacher's perceptions and attitudes toward academic language we looked at the group as a whole and then focused on five individuals with varying perspectives for more extensive analysis. Overall 60.53% of students felt they were ill prepared to teach academic language. This same percentage felt ill prepared to teach academic vocabulary. However, all pre-service teachers acknowledged that both were incredibly important to the field of teaching. Two students stated in the open-ended questions of the pre-survey that "Academic Language is incredibly important [it] is a broad overview that takes larger concepts and condenses them into content specific words" and it is "[the]

professional language used in the classroom to facilitate learning and help students learn correct terms.” Overall the need for academic language and academic vocabulary was clearly articulated as important.

Researchers collected and evaluated artifacts and data throughout the study to support change over the course of an academic semester. At the end of the experience, a post-survey was administered to evaluate changes that occurred. Post survey results indicated an improvement in comfort and preparedness (see Table 2).

**TABLE 2
POST SURVEY RESULTS**

Survey Question	M	SD	%
How comfortable are you with teaching academic language?	6.32	1.63	89.29%
How comfortable are you with teaching academic vocabulary?	6.71	1.75	92.87%
How do you feel the education courses at Sunshine University prepared you to teach academic language?	6.5	1.48	96.43%
How do you feel the education courses at Sunshine University prepared you to teach academic vocabulary?	6.71	1.46	96.43%
How important is it to teach academic vocabulary?	8.14	1.64	100%
How important is it to teach academic language?	8.32	1.49	100%

Note. M=Mean; SD= Standard Deviation; %= Percentage of scores 5 points or more

At the end of the semester, comfort levels increased by 31.39 % for academic language and 48.14% for academic vocabulary. The mean for student’s feelings of preparedness also increased the most with both academic language and academic vocabulary improving by 56.96% each. Almost all students felt prepared in both areas, as opposed to the pre-survey where slightly more than 1/3 of the students felt comfortable. Overall student attitude and perception improved (see Table 3) over the course of the semester. Pre-service teachers improved in both comfort level and preparedness to teach both academic language and academic vocabulary. These statistics indicate a change in student perspective and attitudes and guided us in answering the following sub-questions.

- a. How do the perception pre-service teachers have of academic language and vocabulary change over the course of an academic semester?
- b. How do the attitudes pre-service teachers have of academic language and vocabulary change over the course of an academic semester?

TABLE 3
COMPARISON OF PRE-AND-POST SURVEY RESULTS

Survey Question	Pre- M	Post- M	Pre-SD	Post-SD	Pre- %	Post- %
How comfortable are you with teaching academic language?	5.18	6.32	1.35	1.63	57.9%	89.29%
How comfortable are you with teaching academic vocabulary?	5.76	6.71	1.53	1.75	44.73%	92.87%
How do you feel the education courses at Sunshine University prepared you to teach academic language?	5.66	6.5	1.75	1.48	39.47%	96.43%
How do you feel the education courses at Sunshine University prepared you to teach academic vocabulary?	6.00	6.71	1.85	1.46	39.47%	96.43%
How important is it to teach academic vocabulary?	8.14	8.18	1.64	1.54	100%	100%
How important is it to teach academic language?	8.32	8.47	1.49	1.55	100%	100%

Note. Pre= Pre-survey results; Post=Post-survey results; M=Mean; SD= Standard Deviation; %= Percentage of scores 5 points or more

To further expand on these two questions and to draw conclusion for our main question: How does the knowledge pre-service teachers have of academic language and vocabulary change over the course of an academic semester? We will look at five individuals of varying levels of both comfort level and preparedness. Data was collected throughout the semester to more deeply examine the perceptions, attitudes, and changes that occurred. All five pre-service teachers were in their first methods course which means they were in their second semester of the education program. They range in age from 21-23 and are all Caucasian female from a southern region.

Hannah

Hannah identified academic language as a foundational piece of learning. She was able to see how academic language makes learning easier. She stated “it is important for me to consider that this task will be much more difficult without foundational knowledge of the subject-specific academic language included in the passage.” Reviewing her work samples and artifacts it was clear to see that Hannah not only felt it was important for students to develop academic language she also intentionally used academic language in her writing assignments. Pre-service teachers were asked to reflect upon the ways that their choice or adaptation of learning tasks and materials were guided by their understanding of students’ prior academic learning and personal, cultural, and community assets. They were asked to make connections between the learning tasks and students’ prior academic learning, and research and theory. The following is an extrapolation of Hannah’s reflection used to explore the academic language and academic vocabulary:

My decision to include the scavenger hunt in this lesson was informed by Lave and Wenger’s Situated Learning Theory (academic language). This theory (academic vocabulary) states that the

acquisition of knowledge (academic vocabulary) is a result of activity and the context in which it occurs. The scavenger hunt [was used] to look at informational (academic vocabulary) texts turns the content into an engaging activity (academic vocabulary) for the students. It is also a culturally relevant (academic language) task because the topic is focused on Sunshine University and the historical value of Sunshine, Alabama as a whole. The context of learning (academic language) occurs in Sunshine, where many of the students are from; the informational texts (academic vocabulary) selected are rooted in the culture and values (academic language) of Sunshine University. For example, the students will look at a menu from Toomer's Corner and will analyze (academic vocabulary) its parts, such as the headings, prices, extra information, and historic background section (academic vocabulary). Looking at menus is something that is relevant to students' lives, a task they will do. This decision was informed by the constructivist theory (academic language) that suggests students should be given time to explore (academic vocabulary) materials and make discoveries (academic vocabulary) on their own. By allowing time for predictions (academic vocabulary) the students will engage in critical thinking (academic vocabulary) and be making discoveries (academic vocabulary) and connections (academic vocabulary) both independently (academic language) and with their peers (academic language).

Evaluating the above paragraph for academic language and vocabulary, one can identify several instances as noted in the annotation in the paragraph above. Hannah addressed every component of the assignment clearly. She identified and strongly justified a theory to support her academic decisions. Although Hannah displayed high levels of academic language and vocabulary her post survey scores for comfort levels for teaching academic language and vocabulary indicated that she is neither extremely uncomfortable or extremely comfortable about teaching academic language or vocabulary. In addition, her scores for how prepared she was to teach both academic language and vocabulary also indicated she her comfort level was neutral regarding the preparation she has received to teach academic language or vocabulary. Hannah did indicate on the survey the strong importance of teaching both academic language and vocabulary. Hannah was identified by instructors as a strong student who was very reflective and intentional with language and vocabulary. As noted above Hannah used an equal balance of both academic language and vocabulary in her work.

Lillie

Lillie's work samples and artifacts revealed that Lillie often used simplistic vocabulary and language although she felt both academic language and vocabulary were extremely important. She ascribed a score of 10 for the importance of teaching both academic language and vocabulary. Lillie stated "*Academic language is the language students must have in the classroom to succeed, while academic vocabulary encompasses the words in texts students read that help them further their content knowledge and can be more challenging to acquire.*" She characterized academic language and vocabulary as necessary in order for pre-service teachers to succeed. There was evidence of simplistic vocabulary in her assignment submissions as indicated in the following artifact:

Students will analyze multiple texts (academic language) throughout the week and there is a specific day when videos on the civil rights movement (academic vocabulary) will be presented. While they are being presented, the students are having to write down what they believe to be similar as well as different between the two. I think throughout this activity, the students have to ask themselves "how do these subjects connect?", "where in this text is there a supporting statement (academic vocabulary) in another text?", etc. To make these connections (academic vocabulary) and to thoroughly find the blend between the multiple sources (academic vocabulary), the students have to generate questions (academic vocabulary) and think outside of the standard box.

Lillie could expand her academic vocabulary and language in this submission and future professional assignments in several areas. For example: *While they are being presented, the students are having to write down what they believe to be similar as well as different between the two.* In this statement taken from her assignment submission Lillie could have used the academic vocabulary or language as follows:

While students are analyzing multiple text and or videos, students will identify similarities and differences across multiple text. *To make these connections and to thoroughly find the blend between the multiple sources, the students have to generate questions and think outside of the standard box.* Students will analyze multiple text as they look for textual evidence to support similarities and differences. These simple changes would increase the intentional use of academic vocabulary and language. Lillie identified academic language stating “*Academic language is the syntax, vocabulary, grammar, etc. that students must acquire to have success in the classroom.*” and “*Academic vocabulary is the word usage in academic texts that students need to have to understand a text.*” In her post survey Lillie stated she felt less comfortable teaching academic vocabulary (scored a 4) then teaching academic language (scored a 5). She also indicated on her post survey that she felt extremely prepared to teach both academic language and vocabulary (scored each a 9). Although Lillie felt prepared, it was evident that she really wasn’t comfortable using the language in her own writing. Pre-service teachers were asked to reflect upon how their understanding of their students’ prior academic learning and personal, cultural, and community assets guided their choice or adaptation of learning tasks and materials. They were asked to make connections between the learning tasks and students’ prior academic learning, and research and theory. The following extrapolation of Lillie’s reflection is another example of academic language and academic vocabulary she used in her writing:

Grasping the diverse needs and learning styles (academic language) of the students in my classroom, I rooted my instruction in the educational theory of constructivism (academic language). Constructivist teaching (academic vocabulary) is based on the belief that learning occurs as learners are actively involved in a process of meaning (academic language) and knowledge construction (academic language) rather than passively receiving information (academic language), in other words, students are the makers of meaning and knowledge (academic vocabulary). My students’ learning needs are embedded in their backgrounds, experiences and practices (academic vocabulary) and my goal was to select materials and learning tasks that met the students at their roots and enhanced their learning. I took note that some of my students were visual, active, kinesthetic (academic language) learners while others adapted to literacy strategies (academic language) that were centered on intrapersonal and spatial styles of learning (academic language). To meet the objective, I selected a graphic organizer (academic vocabulary) the students were responsible to create themselves. After analyzing (academic vocabulary) student responses throughout the week, I wanted to modify (academic vocabulary) my lesson to enable all my students to turn into active participants (academic language) that comprehend (academic vocabulary) the information presented from the multitude of nonfiction (academic vocabulary) texts they looked at this week, rather than being a passive recipient (academic language). Knowing this, I selected the organizer so that students could see the main targets used in the creative lesson, to encourage metacognition (academic language) and enhance collaboration (academic language) between students as well as teacher and student.

The example contained several instances of academic language, as noted in the annotation in the paragraph above. Although Lillie attempted to utilize academic language in her response for this assignment, the academic vocabulary used is minimal and often disconnected to the academic language. The above paragraph displays an attempt to make some connections between her academic language and vocabulary but often relies heavily on the simplistic academic language that is often generic rather than content specific.

Sophie

Sophie originally defined academic language as “the broad concepts that encompass all the different concepts and ideas using content specific words.” She revised her definition after the semester to define academic language as consisting “of content specific terms that should be used in professional speech and lessons.” This shows development of the understanding of academic language, but still lacks a clear, concise definitional use of the term. From the very beginning of the study, Sophie showed understanding of academic vocabulary being the content-specific terms needed to teach a lesson. Her work samples and

artifacts illustrated that Sophie was capable of using academic language in some areas of her writing, but was inconsistent in her use of the academic vocabulary commonly used in the teaching profession. For example, she often wrote about *adapting her lessons* when many educators would use the word *scaffold*. Pre-service teachers were asked to reflect upon ways their understanding of their students' prior academic learning and personal, cultural, and community assets guided their choice or adaptation of learning tasks and materials. In addition, they were asked to make connections between the learning tasks and students' prior academic learning, and research and theory. The following is a sample of Sophie's reflection:

While working with student 1 I noticed that he is a very dedicated, capable student; however, he often asks for help even when he understands the concept at hand. This could potentially coincide with a semblance of learned helplessness (academic language). I pushed this student to work independently, and to embrace productive struggle in order to see academic growth.

While working with student 2 I noticed that he is very disengaged in activities that he does not want to do. He exhibited incredible intelligence; however, keeping him on task proved to be nearly impossible. I had to adapt my lesson in a way that kept him engaged, even when participating in activities that he would rather not take part in.

While working with student 3 I noticed that he is a very active student. Providing him with hands-on activities (academic vocabulary) gave him an outlet to exhibit his intelligence while also enjoying the work at hand. These hands-on activities were an adaptation (academic language) to my lesson based on research showing that many students learn better when they remain actively engaged (academic language) throughout.

This reflection contains little evidence of depth of either academic language or vocabulary, many statements are "I" statements which indicates a focus on her perception rather than a focus on student' prior academic learning connected to research and theory. Her reflection illuminates some semblance of academic language, yet it is often simplistic and content generic. Her reflection lacks connections between the learning tasks and students' prior academic learning, and research and theory.

Sophie showed little change in her answers from pre-survey to post-survey in terms of her comfort level teaching academic language and vocabulary. However, she did show a change in her perception of the importance of teaching academic language. In the pre-survey, she rated both the importance of teaching academic language and academic vocabulary with a 9, indicating she felt it was fairly important to teach academic language and vocabulary. In the post-survey, she felt academic language was neutral in regards to the importance of it in teaching. She also dropped the importance of teaching academic vocabulary down from a rating of 9, to a rating of 8. When examining Sophie's work, the lack of academic language and vocabulary is apparent. However, Sophie did change her rating from a 5 (neither extremely prepared or extremely prepared) on the pre-survey to a 7 (closer to extremely prepared than not prepared) on the post-survey when asked to rate how she felt the elementary education program at Sunshine University prepared her to teach academic language. This indicates that while she feels more prepared although she sees the importance in teaching academic language, or vocabulary she is not taking ownership or application of this skill in her own work.

Cindy

Cindy originally defined academic language as, "Academic language is a broad term that encompasses content specific words called academic vocabulary" Her definition focused mostly on vocabulary and lacks clear understanding of the structure, discourse, or syntax included in academic language. Cindy's original definition of academic vocabulary was, "Academic vocabulary are content specific words." On her post-survey, Cindy defined academic language as "Language needed to do well in school, work, and life" and academic vocabulary as "Words that are not common in casual setting but commonly used in professional or academic setting." Her post-survey results indicated she felt comfortable in both academic language and vocabulary (scored 8 on both) and on the post-survey when asked to rate how she felt the elementary education program at Sunshine University prepared her to teach academic language she scored a 7 related to academic vocabulary and an 8 for academic language. This shows only a slight change in perception as she originally scored these both of these items with a score

of 6. These scores indicate that she felt prepared to teach academic language and academic vocabulary although she gave no written response when asked to differentiate the difference between academic language or academic vocabulary. This was interesting considering her original definition in the pre-survey was, "Academic language is a broader term that covers academic vocabulary. Academic vocabulary is content specific and are words students need to know in order to learn."

Pre-service teachers were asked to reflect upon how their understanding of their students' prior academic learning and personal, cultural, and community assets guided their choice or adaptation of learning tasks and materials. They were asked to make connections between the learning tasks and students' prior academic learning, and research and theory. The following is an extrapolation of Cindy's reflection:

After being exposed to my students' prior academic learning (academic language) and personal, cultural, and community assets (academic language) I was able to measure their academic reading level. While working with focus student 1 I was able to see that he is very interested in being active, so I was able to incorporate more active learning to keep him engaged. When I was working with focus student 2 he was a very eager student, but he really wanted help from a teacher at all times. He thrived on reassurance and was not confident in his ability to solve problems (academic language) on his own. As I worked with him I did my best to reassure him on his work as well as to not just give him the answers. Through working with student 3 I noticed that she was very excited and wanted to be heard. Throughout playing the board game I tried to allow everyone to voice his or her thoughts on what the answer was so that she was able to say what she wanted while staying engaged (academic language).

Cindy attempted to use academic language on her work samples and artifacts, although the language chosen was often generic in terms (i.e., engaged, academic learning, and solve problems). Cindy placed a high level of importance on both academic language and academic vocabulary, but often she neglected to fully integrate this into her own writing. One interesting finding was the change in importance of academic vocabulary and language that Cindy's surveys illustrated. On her pretest, she rated both areas with a 10 indicating a high level of importance. On the post-survey, she dropped both of her scores in these areas to an 8. While Cindy felt more comfortable and more prepared to teach academic language and vocabulary by the end of the semester, she actually decreased her view of its importance in teaching and learning.

Holly

Holly began the semester with a very weak definition of academic language, "Academic language is the vocabulary that is used in a classroom to promote learning and further thinking among students in the classroom." Her definition focused on the need for academic vocabulary as the only component in academic language. Throughout the semester, Holly diligently tried to understand and apply academic language and vocabulary within her own writing. Toward the end of the semester Holly modified her definition of academic language substantially showing growth in her understanding. Her end of semester post-survey definition defined academic language as, "Academic language is the language students need in order to perform well in school. This includes domain specific vocabulary, grammar, and other language conventions." Her definitions grew from only including vocabulary to including domain specific vocabulary, grammar, and other language conventions. While Holly grew in both areas, she did not show as much growth in her definition of academic vocabulary. Originally, Holly defined academic vocabulary as, "Academic vocabulary is specific words that are used in a classroom that help students receive a better understanding of the material they are learning." Her pre-survey definition was considerably weaker than her final definition of academic vocabulary. However, her final definition lacked academic language structure. On the post-survey, Holly defined academic vocabulary as, "The words that aren't normally used in casual conversation, but rather used in an academic environment or context." When distinguishing between academic language and vocabulary, Holly originally wrote, "I am not sure on the clear difference between the two except for the fact that language promotes further learning while vocabulary helps students understand concepts." Holly admitted confusion surrounding the two concepts. Her explanation

of academic language at the end of the semester was “Academic language is a broad category, and then academic vocabulary falls within it.” This distinction is clearer than her original response, but she was still unable to fully distinguish between the two. Her work samples and artifacts make it clear that Holly struggled with the written expression of academic language but not the academic vocabulary. It is evident Holly is knowledgeable about the concepts in her assignment. Pre-service teachers were asked to reflect upon the ways their understanding of their students’ prior academic learning and personal, cultural, and community assets guided their choice or adaptation of learning tasks and materials. They were asked to make connections between the learning tasks and students’ prior academic learning, and research and theory. The following is a sample of Holly’s reflection:

Some of these students are rising fourth graders, while others are rising fifth graders. This means that my students will have very different academic backgrounds and experiences. After familiarizing myself with the Alabama State Standards, I know that the rising fifth graders will have already been introduced to the Civil Rights movement; however, this topic will be brand new for rising fourth graders unless they have been taught about the subject away from school. It is this reason that we decided to focus on just two civil rights activists for the student’s final project. My co-teachers and I will also evenly distribute the fifth graders among the two project groups to be leaders. My overall goal is to provide my students with a lesson, which is at their zone of proximal development (Vygotsky) (academic language). This means that the tasks they are asked to perform will provide them with a challenge they will need additional support to overcome. I hope to promote productive struggle (academic vocabulary) as the students learn how to apply the Facts-Question-Response (FQR) and Tackle the Text strategy on their own.

Since this class has a very diverse student population, I hope to lead discussions that make all students feel safe to share their unique cultural perspectives (academic vocabulary) on the movement. I also will try to include Asian Americans into the discussion, asking them questions such as “why do you think they segregated (academic vocabulary) white people and black people if those lines are blurry and the U.S. had other nationalities (academic vocabulary) as well”? I aim to embrace the diversity of our class as we dig into the topic of the Civil Rights movement as well as make sure that each student knows this historical movement impacts each of them in many ways today in regards to how they treat others.

In the same way, Lave & Wenger’s Situated Learning Theory (academic language) claims that the attainment of information (academic vocabulary) is a product of the activity, context, and culture in which it is presented. With this knowledge, I have chosen learning materials that have engaging content that is relevant to my students’ lives, and which reflect their individual cultures.

Since these students are in elementary school, they fall into Erikson’s *Industry vs. Inferiority* stage of development (academic language). During this Latency stage (academic vocabulary), children are capable of learning, creating, and achieving various new abilities and understanding, therefore developing a sense of industry (academic vocabulary). This is also a quite social stage of growth, and if school-age children experience unsettled feelings of insufficiency and inferiority among their peers, they can suffer serious problems in regards to academic and personal capability and self-esteem (academic language and academic vocabulary). Having this knowledge, I chose to explain and model each strategy for the students before having them try them on their own. Easing them into independence like this will give them confidence and a sense of understanding. For the FQR strategy I will even show them the sticky notes that I wrote all my facts, questions, and connections on prior to reading it to them. This way the students will feel comfortable sharing their thoughts during the read-aloud since I have already shared some of mine.

Gardner’s Multiple Intelligence theory (academic language) which suggests that different people have different ways of thinking and processing [9 intelligences] also guided my choice of learning tasks and materials for this lesson. The FQR hand gestures and color-coding will help kinesthetic learners (academic vocabulary), while the read-aloud and class discussion will cater to auditory and linguistic learners (academic vocabulary). The independent practice caters to those

learners who are intrapersonal (academic vocabulary), while the small group activities and turn and talks will accommodate the interpersonal learners (academic vocabulary). The video sources, document camera, and color code will help the students who learn best visually.

This example illustrates that Holly was still developing her academic language, but already possessed a strong ability to use academic vocabulary. Much of her weakness appeared in the structure of her writing. In her pre-survey comfort levels teaching academic language and vocabulary, she rated herself fairly low with score of 3 on academic language teaching comfort and a score of 4 on academic vocabulary teaching comfort. Holly rated her post-survey feelings of comfort teaching academic language and academic vocabulary with a score of 7 for both, indicating she felt more comfortable than not, teaching academic language and vocabulary. While this does show growth, she still did not feel extremely comfortable. Holly began the semester with the perception of feeling fairly low preparedness in her course work at Sunshine University to teach academic language (rated a 4) and academic vocabulary (rated a 3). By the end of the semester, the four was raised to a 7 and the 3 was raised to an 8, indicated more confidence in her teacher preparation, in regards to academic language and vocabulary. Holly's use of academic vocabulary was evident in her writing. Her greatest change in attitude occurred in her ratings of the importance of teaching academic language and vocabulary. In the pre-survey, Holly rated both the importance of teaching academic language and vocabulary with a 6. This indicates she felt it only slightly important. However, by the end of the semester, she rated both academic language and vocabulary with a 10. Her attitude at the end of the semester indicated she believed that academic language and vocabulary are extremely important to teach.

LIMITATIONS

Although this research brought to light some key findings and insights, several limitations have been identified through the course of this study. One limitation is the lack of current research focusing on teacher preparation programs in connection with the academic language and vocabulary needed for pre-service teachers to be successful in the classroom. This creates a need for further research in this area in order to prepare teachers for the academic language and vocabulary demands needed to be successful in the classroom. Another limitation of the study was the sample size of the participants. At this time, the classes consisted of almost completely female students, in their junior year of college. For the purpose of this study, the small sample size was adequate to provide enough information about the general knowledge, attitudes, and perceptions of pre-service teachers. Further research on this topic is warranted. Finally, another limitation in the design of the study was the time frame of the summer semester. The summer semester was much shorter than a fall or spring college semester, so showing changes or growth over time may have been impacted. Future studies should be done over the course of an entire semester or the entire degree program to gain more understanding on this topic.

CONCLUSION

Academic language and vocabulary are complex systems in which sophisticated language, skills, and grammar structures are derived to develop a deeper level of learning. This research identified several layers of knowledge, perceptions, and attitudes toward academic language and vocabulary. What we found are classrooms that support the acquisition of academic language and vocabulary prepare students to address the complexities of the English language. Our classrooms provided pre-service teachers the opportunities to practice the language used in the context of learning to prepare and scaffold academic success. We found that students who master academic language are often more likely to be successful in academic professional settings. Whereas students who struggled with academic language and or vocabulary struggled academically to convey professional discourse in their writing. We found preparation increased confidence and impacted perception of both concepts. Pre-service teachers were given multiple opportunities to practice both academic language and vocabulary honing in on both skills. Pre-service teachers (most) needed ongoing systematic instruction in both academic language and vocabulary to

increase their confidence and comfort level of application of academic language and academic vocabulary. By the end of the semester, there were significant differences in students pre-and-post perceptions of preparedness to use, apply and teach both academic language and vocabulary.

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