The Effects of a Peer Teaching Approach on Urban Community College Students' Vocabulary Development Using Vocabulary Theatre

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Abstract

The purpose of this study was to replicate the first author's previous study with more diverse participants including ethnic minority students to investigate the effects of a peer teaching approach on students' vocabulary development using a treatment entitled Vocabulary Theatre (VT). Literacy professors at an urban community college in the Northeast conducted vocabulary research with their students in their respective classes. A mixed methods quasi - experimental study was conducted to compare the mean gains scores of two different types of vocabulary acquisition. Students in the VT condition were instructed to take ownership of their expressive vocabulary by teaching their assigned target words to peers in a small group. The group was then responsible to create a short skit (vignette) that used all of their assigned words appropriately, and to perform it for the class. This gave students multiple repeated exposures to the target words. This differed from the Teacher Directed Instruction (TDI) in which the students were asked to simply look up definitions of the entire list of target words. Students were given a pre- and posttest to examine their level of vocabulary acquisition in each condition. A gain score was computed subtracting the pretest results from the posttest results. Also, qualitative data was collected in the form of individual interviews, classroom observations, and small group discussions in the classroom. Analysis of qualitative data showed higher levels of motivation and engagement as reported in student interviews. Though limited by a small sample size, quantitative results showed an improvement in scores of post tests regardless of the instruction method.

1. Introduction

1.1 Introduce the Problem

Effective vocabulary instruction for all students is paramount as studies have shown that vocabulary knowledge is correlated with more enhanced reading comprehension (Beck, Perfetti, & McKeown, 1982; Blachowicz & Fisher, 2004; Cromley & Azevedo, 2007; Cunningham & Stanovich, 1997; Nagy & Scott, 2004; Olafsdottir, Laster, & Stefansoon, 2020; Stahl & Fairbanks, 1986). Additionally, students with larger vocabularies have shown increased stamina while reading (Stahl, 1999). It is imperative that vocabulary instruction involves more than definitional knowledge. Research has shown that effective vocabulary instruction includes the following: direct instruction, repeated exposure, contextualizing words, and opportunities for word interaction and active engagement. Seventy years ago, Davis (1942) identified two important skills in reading comprehension in secondary schools and colleges: word knowledge (vocabulary) and reasoning. More recently, the National Reading Panel (National Institute of Child Health and Human Development, 2000) undertook the task of reading evidence-based research to understand the usefulness of reading instruction, and reiterated that vocabulary instruction was listed as a vital component in improving reading comprehension.

Current practices and instruction have not been innovated for a while. The Vocabulary Theatre strategy makes use of ample research findings in allowing students opportunities to use new vocabulary in various ways, thereby making it more likely that students will come to a full understanding of their new words. Furthermore, Vocabulary Theatre is a

teaching methodology that can be used in all disciplines to advance students' academic vocabulary acquisition. Most recently, the Common Core Learning Standards (National Governors Association for Best Practices, Council of Chief State School Officers, 2010) for math and ELA that have been adopted by most states in America, believe that students will grow their vocabularies through meaningful conversations, readings of complex text, and direct instruction. In fact, Academic Vocabulary is one of the six shifts in the ELA/Literacy standards because mastery of this topic extends across all aspects of literacy: reading, speaking, listening, and writing. Furthermore, for a reader to understand a word's meaning, two things must occur: "first, the reader's internal representation of the word must be sufficiently complete and well articulated to allow the intended meaning to be known to him or her; second, the reader must understand the context well enough to select the intended meaning from the realm of the word's possible meanings" (National Governors Association for Best Practices, Council of Chief State School Officers, Appendix A, 2010).

In this paper we are going to compare the outcome of word knowledge acquisition and retention between VT and TDI. Using a mix of qualitative and quantitative data the study will explore if VT based learning has any positive effects on learning outcomes. We hope this will motivate more educators to practice this method of teaching vocabulary in their classrooms.

1.2 Importance of the Study

As many educators know, the National Reading Panel (NRP) published its findings on the relationship between vocabulary knowledge and oral and print comprehension (National Institute of Child Health and Human Development, 2000) after reviewing experimental and/or quasi - experimental studies from 1979 to 2000. Fifty studies revealed findings that repetition, multiple exposure, and active engagement by students were important procedures for successful vocabulary instruction to improve comprehension. A large functional vocabulary is necessary for students to be able to read and comprehend, which are required to excel in school. Vocabulary knowledge is a major building block to strengthen reading comprehension (National Institute of Child Health and Human Development, 2000; Nagy & Scoot, 2004; Blachowicz & Fisher, 2004). Students must have many occasions to exhibit their new vocabulary (Beck & McKeown, 1991; Gunning, 2006, Nagy & Scott, 2004) so that they can demonstrate awareness of the meaning behind the words through their expressive language. Also, Ogle, Blachowicz, Fisher and Lang (2016, p.3) stress the importance of the educator's role in teaching vocabulary is "what students require is better strategies for building their academic vocabularies so they can master the much larger number of words and phrases they will encounter and know how to use them appropriately in disciplinary contexts."

1.3 Relevant Scholarship

Blachowicz & Fisher (2000) stress that vocabulary instruction should consist of four components: active learning, personalization of word learning, immersion of word knowledge, and repeated exposures to the word. Blachowicz & Fisher (2000) emphasized the adaptive process when teaching content vocabulary because students are not only learning new words, but they are also learning new concepts along with the new vocabulary. The new words, coupled with the new concepts, create multiple meanings, which, in turn, creates a new learning task; therefore, these are essential steps for adapting struggling readers and ELLs. Finally, Blachowicz and Fisher (2004) stress that just as a house needs a solid foundation, reading comprehension depends on a strong, solid base of oral language and a conceptual development of word knowledge. According to Blachowicz and Fisher (2000), vocabulary instruction is paradoxical because of the simple yet complex nature of vocabulary, and they stress that all teachers are teachers of vocabulary. Additionally, two decades of research on vocabulary instruction have revealed the following principles that are paramount in guiding vocabulary instruction. First and foremost, students must be active learners while they personalize their word learning.

Additionally, students must be immersed in word knowledge while an essential part of learning vocabulary is through repeated exposure. "Vocabulary instruction improves comprehension only when both definitions and context are given, and has the largest effect when a number of different activities or examples using the word in context are given" (Stahl, 1986, p. 663).

Allan Paivio's (1990) Dual Coding Theory (DCT) applies to Vocabulary Theatre because of the two independent but connected codes a student will use to understand the target word either through a verbal or nonverbal code. DCT surmises that cognition occurs in two independent but connected codes: A verbal code for language entitled "logogens" and a nonverbal code for mental imagery called "imagens." The basic belief of DCT is that all mental representations hold some of the concrete qualities from the experiences where they were acquired. These experiences can be separated into two mental systems that represent nonverbal and verbal codes. The two mental codes, along with the five senses, are all independent in DCT. Together, the two codes combine the knowledge of the world with the knowledge of language. The essence of DCT is that verbal and nonverbal stimuli are perceived by the sensory system, and logogens and imagens are activated. The verbal system employs a hierarchical sequenced arrangement of logogens while the nonverbal system is more of a nested, overlapping system of imagens. The nonlinguistic representations of the word utilize the nonverbal coded part of mental imagery as part of the learning processes of vocabulary acquisition in

Vocabulary Theatre. DCT is not strictly about words and their relationship to visuals. The correct distinction is between verbal and nonverbal imagery codes, and between the visual modality and the other sensory modalities. Sadoski (2005) emphasizes that a major significance of DCT is the difference between abstract language and concrete language. Concrete language seems to evoke a combination of verbal images as well as mental images to encourage and produce meaning. On the other hand, abstract language primarily creates a "web of verbal associations" (Sadoski, 2005, p. 222).

Another popular classification of vocabulary is academic vocabulary, which has brought about a surplus of definitions. Nagy and Townsend (2012) have stated that Academic Language is a "specialized language, both oral and written, of academic settings that facilitates communication and thinking about disciplinary content." Additionally, Snow, Lawrence, and White (2009) have defined "all-purpose academic words" as the words that are not directly taught to students although students will see these words more frequently in their core subjects in school. The new Common Core Learning Standards (National Governors Association for Best Practices, Council of Chief State School Officers, Appendix A, 2010) initiative for ELA that has been implemented in most of the schools across the United States as of 2012 has defined Academic Vocabulary as the Tier Two words from Beck, McKeown, and Kucan (2002). These are specifically listed as General Academic Words in the standards because these are the words that students will see much more in their texts than words they will hear in a classroom or conversation. The types of texts in which these words most commonly appear are informational texts, technical texts, and literary texts.

This collective data emphasizes the growing and demanding need to teach vocabulary to students with meaningful and cooperative engagement. Not only does vocabulary knowledge provide the link between how people think and communicate, (Adams, 2009) but also a strong relationship exists between vocabulary knowledge and reading comprehension as the more words a person reads with understanding, the greater the text's enriching value and meaning. Stahl and Fairbanks (1986) examined vocabulary studies involving students at various reading levels and found that, as time assigned to vocabulary lessons increased in minutes, the effect size for reading comprehension also increased, with a fairly strong correlation. Students who are linguistically advantaged know about 20,000 words as they enter first grade while linguistically disadvantaged students know only 5,000 words. This vocabulary gap from students entering first grade tracks closely with reading achievement at the end of first grade and with eleventh grade reading comprehension (Moats, 2001). Students need to learn many academic words today, and the fact that these words may not be learned incidentally through oral communication and media exposure, direct vocabulary instruction is a viable way to enrich students' understanding and communication capacity. Students experience a plethora of academic words in every classroom during the school day. The many layers of learning that occur during VT enhance the students' acquisition of new vocabulary. It is important to mention here the distinction between two types of vocabulary— receptive and expressive. Receptive vocabulary consists of the words that students hear and see while expressive vocabulary involves the words students choose when they speak and write. VT concentrates on expanding the expressive vocabularies of students by having students speak the words in their skits (see Appendix A) and write the words in their Power of Ten assignments or in their narratives. Vocabulary instruction improves comprehension only when a context is given along with the definition. "It has the largest effect when a number of different activities or examples using the word in context are used" (Stahl, 1986, p. 663). VT is a fundamental tool that allows adolescents at the precipice of embracing their autonomy to construct their own meanings of learning.

Vocabulary Theatre implements the Bloom's Taxonomy (2020) Cognitive Domain model in the following way:

Remember Domain: The lowest domain where students are given the word, their initial exposure to the word is heard from their professor with a choral reading of the word and then the professor giving a brief definition of the word.

Understand Domain: The students with the help of the Power of Ten handout classify their one word by identifying ten elements of the word: target word, definition, part of speech, synonym, antonym (or non-example), sentence from dictionary, image/picture of the word, other forms of the word, original sentence, and etymology of the word.

Apply Domain: Students use information from the target words to implement their interpretation of the word by finding an image to an abstract academic word.

Analyze Domain: This domain urges the students to work cooperatively to draw connections among their ideas for using the words in skits. The students examine the meanings of the words by working in small groups to finalize their skits.

Evaluate Domain: This domain explores the use of the five words in a skit so students support and defend their interpretation of the use of the words in dialogue and setting for their skits.

Create Domain: Students produce an original work in the performance of the Vocabulary Theatre skit. They construct the meaning of the words in original creative writing pieces as a final assignment and assessment of understanding the words.

1.4 Research Question and Correspondence to Research Design

This study posed to answer the following quantitative research question:

Is there a significant difference between vocabulary gains scores when students receive vocabulary instruction using the Vocabulary Theatre approach as compared to the Teacher Direct Instruction approach?

2. Method

The purpose of the study was to explore the effects of a peer teacher approach on college freshmen's vocabulary development. The approach grew out of an earlier study from the teaching of adolescents as an English Language Arts (ELA) and SAT preparation teacher for over twenty years. It was noted that successful performance on the reading sections of the SAT's and the ACT's was influenced by vocabulary knowledge and that many of the words students face on standardized tests were not words they would hear and use in everyday conversation.

2.1 Participants

A convenience sample consisted of 55 community college students ranging in age from 18 to 45 with an average age of 23 from two "A" classes and one "B" class located in New York City. Students were 63.6% female, 36.4 % male, 5.5 % white, 25.5 % Latino/Hispanic, 43.6 % Black/African American, 23.6 % Asian, 1.8% American Indian/Native Alaskan and 32.7% were English Language Learners. Out of the 55 students included in the sample, 30 students were included in the quantitative data analysis as a requirement for inclusion was for students to have participated in both the Vocabulary Theatre and Teacher Directed Instruction. The sample of 30 students who had both VT gains scores and TD gains scores ranged in age from 18 to 45 with an average age of 24. Students were 73.3% female, 26.7% male, 10% white, 26.7% Latino/Hispanic, 33.3% Black/African American, 26.7% Asian, 3.3% American Indian/Native Alaskan and 36% were English Language Learners. See Table 1 for a description of the participants.

Table 1. Description of Participants

Category		Full Sample	Included Sample
Gender			
	Male	20(36.4%)	8(26.7%)
	Female	35(63.6%)	22(73.3%)
Ethnicity			
	American Indian	1(1.8%)	1(3.3%)
	Asian	13(23.6%)	8(26.7%)
	Black	24(43.6%)	10(33.3%)
	Hispanic	14(25.5%)	8(26.7%)
	White	3(5.5%)	3(10%)
ELL Status			
	ELL	18(32.7%)	9(30%)
	ELP	37(67%)	21(70%)

*ELL: English Language Learner ** ELP: English Language Proficient

2.2 Description of Courses

Community colleges are more likely than four-year institutions to accept students who are academically underprepared (Grimes, 1997). As a result, remedial courses have been developed as a way to close the gap between those underprepared students and their better prepared counterparts. Previous research has indicated that community college students are less likely to persist to graduation due to several factors, including race or ethnicity, socioeconomic status, and outside factors such as family and work obligations (Grimes, 1997; Horn & Nevill 2006; Walpole, 2003; Perna, 2000). Remedial classes can sometimes be a necessary evil. They are important to help students who are underprepared catch up to their college-ready peers and find success, but they can also be a hindrance to students completing their planned academic trajectory. The present study made use of the remedial student population split between two separate remedial courses. Students enrolled in each course of their own choice.

Course A is a remedial reading comprehension course designed for students who have not yet been able to pass the reading portion of the community college's entrance exam. Students placed in this course have reading levels typically below the 10th grade, but given the large variation of potential reading difficulties it is possible to have a wide range of

reading ability for the students in these classes, with some students having reading levels far below others in the same class. This course also includes students who are proficient in English, including many native speakers, as well as English Language Learners at various stages of their journey in learning English. Because this reading requirement is accomplished through a "gateway" remedial class, it is a prerequisite for many other courses, and is required until students are successful in passing the exit exam. The course was designed such that major strategies and skills for reading comprehension are covered over a standard semester for six hours per week. Because the course is compulsory and offers students no earned credits towards a course of study, some students are resentful of the requirement. Others view their attendance as optional. The nature of this course can become a drain on students' time and energy, as well as on their motivation. Particularly with Course A, some students may take the course two or three times before successfully completing this requirement.

Course B has the same population of students, those in need of reading comprehension remediation, but the course is slightly different from Course A. Course B covers content area material focused on critical thinking in addition to the reading comprehension material, also over the course of a full semester and for six hours per week. Upon completing the course students earn three credits and have a critical thinking course applied to their transcripts. There is no exit exam for this course, with a final grade determined by student performance on multiple measures as determined by the professor. The students in Course B had more to gain by maintaining their attendance and their relationship with the professor, as their success in the course depended on their performance throughout the semester. The students in Course A, however, knew they could (more or less) come and go from the course. As long as they did not miss more than half the classt ime they would still be able to take the test at the end of the semester, and could potentially pass the course. This pattern of poor attendance is not unexpected and serves as a definite limitation to the course. It is also expected that it contributed to the high attrition rates for the present study, in particular for students enrolled in Course A. The researchers expect this is the main cause of missing scores for Course A, and as a result, a limited sample size.

The teaching experience of the principal researcher is over twenty years in middle school, high school and college. The second author's teaching experience spans more than fifteen years and includes special education populations, as well as middle school and college aged students.

2.3 Measures

Vocabulary Knowledge Tests

The 60 words chosen for use in the study were found by looking for frequently used academic words. Words had to appear in at least three of the four SAT prep published sources (Carnevale, 2010; Green & Wolf, 2010; Reed, 2004; Shostak, 2015). Most were listed in all four SAT Vocabulary Prep sources. The test from the original study which informed this one was developed using the Stanford Diagnostic Reading Test (Karlsen & Gardner, 1996) stem format, and reviewed for reliability by literacy professionals at a major North Eastern University. While the test format was replicated from a previous study, three linguistics experts were consulted in order to provide content validity for the vocabulary knowledge tests.

Interview Questions

Researchers asked nine different questions of the students during class time, and then randomly picked students for individual interviews. Questions focused on the engagement level, the process of using the dictionary to look up words, the procedure of the Vocabulary Theatre approach, the effect of discovering nonverbal representations to learn words, the ways that word ownership occurred, and the reactions of how students felt teaching their peers. The following nine questions were used during the whole class conversations and individual interviews and when applicable, further explanation of words was given.

1. What was it like to be the teacher of your peers?
2. In what way did you feel more actively engaged in the lesson?
3. In what way did you not feel more engaged in the lesson?
4. In what ways do you believe you learned the words better in VT?
5. Why or why not?
6. What was it like to use nonlinguistic representations of your word?
7. Describe how you took ownership of your word?
8. Describe the process of what happens when you look up a word in the dictionary.
9. What did you like about VT? What did you dislike? Describe performing the skits in VT.

2.4 Instructional Materials

Teacher Directed Instruction (TDI Materials)

The TDI materials consisted of a list of the 10 words to research for each of the three weeks (see Appendix B) along with traditional writing materials whereby students could write their definitions and original sentences using the words. Students had access to their dictionary apps on their smartphones. Also, the professor supplied some pocket copies of dictionaries.

Students in the second author's class had access to their smartphone dictionary apps. Both professors introduced the words briefly, including a quick pronunciation and then assisted students as they worked individually to find dictionary definitions of the words on the word list.

Vocabulary Theatre (VT) Materials

The VT materials consisted of a Power of Ten handout example and a mini- poster handout example (see Appendix C). As part of training, the second researcher was given directions for the student groups. The Word Power handout gave students a list of items to include in their research, in preparation for sharing information about the word with their group. Items included the word's definition, other forms of the word, part of speech, a sentence from the dictionary, synonyms, antonyms (if available), a student-created sentence, a photo that helps explain the word, and the etymology of the word.

In order to complete the work required to teach their word to their peers, students were required to create a poster using their One Word for the week that included the word itself, the definition of the word, an original sentence that was connected to the photo or picture they had selected. Because classes were composed of more than ten students, there was some overlap in the distribution of the ten weekly vocabulary words, therefore, professors confirmed that each student group had no two students with the same One Word assignment.

2.5 Procedure

Teacher Training

The lead researcher trained the other professor by apprising her of the study's purpose, rationale, and general methodology of the two conditions. Second, the professor was trained in the VT instructional approach and how she would conduct the TDI condition during each weekly time frame. Finally, she reviewed lesson plans from a previous implementation of each condition, viewed videos of students participating in VT skits, and examined artifacts from former student participants. The second professor agreed to follow the protocols set for each of the study's conditions, particularly the One Word presentation to each individual student.

Instructional Procedure

Each condition was conducted for a three-week period in each classroom, to account for the 60 words used in the study. The TDI condition used two class meetings per week to teach ten target words for 30 minutes during a two-hour lecture class. During the TDI periods, students worked alone or in pairs, investigating the meaning of the 10 words for the week using dictionaries and writing original sentences for each word. The first 40-minute period of the VT condition consisted of the teacher distributing the 10 word weekly list, but with only one word highlighted for each student. For each group of three to four students, the words were distributed strategically so that there would be no two students with the same word in one group. Then the professors reviewed the pronunciation and meaning of each word with the whole class. Professors pronounced the words with the students repeating as a group, allowing shy students to be more at ease when pronouncing the new words. Students were given homework to research their word and complete the Word Power handout.

Students presented their Word Power handout homework to their group during the second 40-minute meeting. As students shared in groups, the professors moved through the room, listening to the presentations, correcting misconceptions if they occurred, explaining nuances of the word, and offering advice about connections between the words. Students then began to work on how their words could be used in their skits. Students were told they were free to use verbal or nonverbal means, including music, art, or body movement to clarify and enhance the meaning generated through their words. A few students used storyboard organizers to draft different scenes of their skits.

Student groups were asked to do three things to help the audience understand the words and their meanings as they watched the skits. First, one group member would hold up a poster with the printed word as it was spoken in the skit. Second, the meaning and a context clue for each word needed to be included in the skits to assist the peer audience with a word's understanding. For example, for the word prosaic, the presenter said "This is so prosaic: this is so boring; this is so dull!" Third, the mini-poster showing a variety of verbal and nonverbal clues to the word's meaning needed to be displayed by each member of the group at the end of the skit. For instance, the picture clue to the

meaning of meticulous showed a man on his hands and knees with scissors trimming the tops of blades of grass. The sentence on the mini-poster read, "The man was so meticulous; he trimmed his lawn so every strand of grass was perfectly one-inch high." At the end of session two, students assigned skit roles and tasks for each group member, and planned to meet as a group to practice before the full class presentation.

Session three was the actual performance day, with students giving lively theatrical performances using their words. After each short skit, each group member would present their mini poster, explain the word's meaning, point out how the illustration supported the word's meaning, and read the original sentence.

One student pointed out the following, "Acting out the words is way better than reading it on the piece of paper because on paper it is very hard to remember. When you watch others act out words and explain the words in their own way it makes it much easier to remember." "We had to think very hard to make the skit make sense." "If you can't always remember the actual definition of the word you can remember the way a person acted out the word due to it being interesting." "It was interesting watching other groups play out their scripts because it gave me different ideas on how the words can be used.

2.6 Research Design

In order to complete the six-week counterbalanced design, each professor was required to conduct two phases for three weeks each, before switching conditions. Over the course of each phase, students in the VT and TDI conditions were administered pretests on the 30-word vocabulary before the phase began, and were administered post-tests after the phase finished. Once both professors had completed both conditions and phases in each class, the professors conducted individual as well as class interviews with the students. Professors randomly selected four - five students who participated in individual interviews in a separate classroom setting.

Since students were already assigned to their respective college classes, random assignment of students to groups was not feasible. Therefore, a mixed methods, quasi-experimental study was used to compare the mean gains scores of two different types of vocabulary acquisition, Vocabulary Theatre (VT) vs. Teacher Directed Instruction (TDI) for 30 freshmen students in class "A" and class "B" classes. This was a counterbalance design, in which all students received both conditions across two phases of the study. Students were assigned to one of two groups: Vocabulary Theatre First or Vocabulary Theatre Second. Students who were assigned to the "Vocabulary Theatre First" group received the Vocabulary Theatre instruction during weeks 1-3 and Teacher Directed Instruction during weeks 4-6. Students who were assigned to the "Vocabulary Theatre Second" group received the Teacher Directed Instruction during weeks 1-3 and the Vocabulary Theatre Instruction during weeks 4-6. Students were given a pre- and posttest during each condition to examine the rate of vocabulary acquisition. A gains score was computed by subtracting the pretest score from the posttest score. The gains scores were analyzed using a 2 X 2 split plot ANOVA with phase as the between subjects independent variable with two levels (Vocabulary Theatre First and Vocabulary Theatre Second) and condition as the within subjects independent variable (Vocabulary Theatre Gains and Teacher Directed Instruction Gains).

Assumptions

Valid interpretation of data relies on the data meeting underlying assumptions of the analysis (Meyers, et al., 2013). Therefore, the data were screened for four assumptions that must be met when using a split plot ANOVA: independence, normality, homogeneity of variance, and homogeneity of covariance (Meyers, et al., 2013). Statistical assumption violations were analyzed using SPSS Analyze procedures. The scores the students obtained while receiving Vocabulary Theatre instruction were independent of the scores the students obtained while receiving Teacher Directed Instruction, therefore, meeting the Assumption of Independence. Normality was examined using the Explore function of SPSS. Skewness and kurtosis for means for both Teacher Directed Instruction gains and Vocabulary Theatre gains across both levels of Phase were within acceptable ranges of -1 to 1, indicating the assumption of normality had not been violated (Meyers et al., 2013). Additionally, according to Meyers et al. (2013), Kolmogorov-Smirnov and Shapiro-Wilk's tests of normality indicated no assumption violation ($p > .001$). Homogeneity of Variances for the between subjects independent variable was determined using Levene's test of equality of error variances, which was nonsignificant ($p > .01$), indicating that the variance of scores was equal across both levels of Phase for VT gains and TDI gains (Meyers et al., 2013). In this analysis, Mauchly's Test of Sphericity was not performed because there were only two levels of the repeated measure; therefore, sphericity is assumed (Meyers et al., 2013). Homogeneity of covariance was determined using Box's Test of Equality of Covariance Matrices (Meyers et al., 2013). Box's Test of Equality of Covariance Matrices indicated no assumption violation ($p = .479$).

3. Results

In order to determine the effectiveness of the instructional procedures, this study employed both qualitative and quantitative measures.

3.1 Quantitative Results

2 X 2 Split Plot ANOVA Results

The central quantitative research question aimed to determine whether there would be significantly stronger vocabulary gains when receiving vocabulary instruction through a VT approach as compared to the TDI approach. A crossover within-group design was employed to compare VT gains with TDI gains. All students received vocabulary instruction using both the VT and TDI approaches. The data were analyzed by way of a 2 X 2 split plot analysis of variance (ANOVA) with one between subjects independent variable (Phase) and one within subjects independent variable (Condition). The between subjects independent variable consisted of two levels (Vocabulary Theatre First and Vocabulary Theatre Second). The order of presentation was counterbalanced so that students in the VT First group received TDI second and those in the VT Second group received TDI first. The within subjects independent variable Condition consisted of VT gains scores and TDI gains. The dependent variable, gain score, was determined by subtracting the pretest scores from the posttest score for each subject. Descriptive statistics for each condition are presented in Table 2.

Table 2. Descriptive Statistics of Gains Scores

Phase: Vocabulary Theatre First, N=9	Phase: Vocabulary Theatre Second, N=21
VT Gains (M = 13.0, SD = 5.92)	VT Gains (M = 7.1, SD = 5.8)
TDI Gains (M = 5.33, SD = 6.4)	TDI Gains (M = 4.23, SD = 3.8

Screening the data.

Prior to proceeding with data analysis, all variables were screened for missing values and outliers. The 55 students were screened for missing values on the two continuous variables (Vocabulary Theater gains and Teacher Directed Instruction gains). In order to be included in the analysis, students needed to have a gains score for both VT and TDI. Of the 20 students who received Vocabulary Theatre First, 11 (55%) were missing either a Vocabulary Theatre gains score or they were missing a Teacher Directed Instruction score and subsequently not included in the analysis. Therefore, 9 out of the 21 students who received Vocabulary Theatre First were included in the analysis. Of the students who received Vocabulary Theatre Second, 13 (37%) were missing either a VT gains score, or they were missing TDI Gains score. Therefore, 22 out of the 35 students who received Vocabulary Theatre Second were included in the analysis.

Finally, there was one univariate outlier detected from Vocabulary Theatre Second with a z score of -2.96, which was subsequently deleted. Univariate outliers are defined as cases with z scores exceeding ± 2.5 (Hair et al. as cited in Meyers et al., 2013).

Overall Results

Gain scores were analyzed using a two-way split plot ANOVA with two levels of condition (Vocabulary Theatre Gains, Teacher Direct Instruction Gains) as a within-subjects factor and two levels of phase (Vocabulary Theatre First, Vocabulary Theatre Second) as a between-subjects factor. Table 3 presents the mean gains score and standard deviation for each phase of both conditions.

In order to maintain the study-wise Type I error rate at .05, the alpha rate for each individual test, which was adjusted using the Bonferroni procedure, was .017 for the three tests of significance. The within-subjects main effect of Condition was not statistically significant, $F(1, 28) = 2.79$, $p = .106$. The between-subjects main effect of Phase was also not statistically significant, $F(1, 28) = 5.22$, $p = .030$. There was a significant Phase x Condition interaction, $F(1, 28) = 13.36$, $p = .001$, eta square = .32, which is considered a large effect size (Cohen, 1988). Since there was a significant Phase by Condition interaction, tests of simple effects using Bonferroni-corrected t tests were performed.

Test of simple effects comparing group separately for each condition.

Vocabulary Theatre Condition

There was a significant difference in Vocabulary Theatre gains for students who received Vocabulary Theatre First and for students who received Vocabulary Theatre Second (< *.001*). Students who received the Vocabulary Theatre Instruction Weeks 1-3 made significantly higher gains than the students who received the Vocabulary Theatre Instruction Weeks 4-6 (*M* = 13.0 vs. *M* = 4.23, *d* = 1.96), which is considered a large effect size (Cohen, 1992).

Teacher Directed Instruction Condition.

There was no significant difference in Teacher Directed Instruction gains for students who received Vocabulary Theatre First in contrast to students who received Vocabulary Theatre Second (*p=.465*). Therefore, the students who had received Teacher Directed Instruction weeks 1-3 made similar gains to students who had received Teacher Directed

Instruction weeks 4-6.

Test of simple effects comparing condition separately for each group

Vocabulary Theatre First phase.

Students who received VT First had significantly higher mean gain scores when receiving the VT treatment than when receiving the TDI, p =.004. When the students in VT First received Vocabulary Theatre instruction, the gains were significantly greater than when they received the Teacher Directed Instruction (M = 13 vs. M = 5.33, d = 1.25), which is considered a large effect size (Cohen, 1992).

Vocabulary Theatre second phase.

For students who received Vocabulary Theatre Second, the effect of condition was not statistically significant p = .081. There was no significant difference between the mean gains scores when the students received TDI Instruction (Weeks 1-3) and Vocabulary Theatre instruction (Weeks 4-6).

Overall, tests of simple effects revealed that the gains of the vocabulary theatre were significantly greater for the students who were presented with the vocabulary theatre first (*p <.001*) when compared to the vocabulary theatre gains of those students who were presented with the vocabulary theatre condition second. Additionally, the students who received VT first made significantly greater gains than when they received the TDI instruction.

3.2 Qualitative Results

The researchers used the grounded theory method (Corbin & Stauss, 2008) of qualitative analysis, which is the "process of examining and interpreting data in order to elicit meaning, gain understanding, and develop empirical knowledge" (p. 1). The following qualitative data was collected for this study: individual interviews with the students, whole class discussions, VT skit group interviews, mini posters, narrative writings, reflection papers, and Power of Ten assignments. Data was collected and then mined for the categories and trends from which the findings of this study were developed.

Finding #1: Collaborative learning and teaching among peers encouraged engagement in learning new vocabulary.

Many of the students emphasized how VT was an entirely new way to learn vocabulary and most reiterated that they had never learned vocabulary with this type of methodology. More than one of the students shared that having support from classmates helped, especially as they were still learning English as a second language. One stated the following: "English is not my first language so my classmates would explain the idea that they wanted." Another shared that they had a similar experience, saying, "I [felt] comfortable because I can see that I'm growing and leaving my fears of... talking in front of people."

The students participated in extensive conversations in an attempt to understand their words and use them correctly in their skits.   Conversations are an intricate contributor to the students' understanding of the target words and these intimate conversations would highlight intriguing uses of the target words. Hiebert (2020) emphasized the importance of conversations to encourage students' vocabulary acquisition. Conversations involve listening – an important literacy skill – so the following student learned about listening when she said, "It also enhanced our listening skills by doing the VT - not just reading or writing skills- which help us understand more of the word."

One student spoke about being a peer teacher to others in his group, "It was a good chance to communicate and say their opinion to discuss what to add to make the skit great." Another ELL student said, "I enjoyed the group work. In Bangladesh I never did that before. It helps me for the future. I think it is good - it allows many vocabulary words that I didn't know what the words mean."

Word sharing: Students' interactions with their peers created a more complete understanding of the vocabulary word. The students were engaged in dialogue because students were learning by constructing and sharing their own knowledge of the words.

This constructivist method from the beginning of the assignment when students were introduced to their word, allowed them to create personalized methods to teach that word to their peers, using inquiry, collaboration, and performative hands-on experience. Deeper understandings were created because students' own schema were used to grasp the connotations and nuances of the words. The freedom to focus on only one word allowed students to be more immersed and engaged in the project.

Creating the skit. The students worked in their collective groups of four to five students to discuss and dialogue the VT skit. What the researchers observed were classrooms booming with students' creative chatter as they compiled their list of words and meanings to act out in their VT skits.

During the whole class discussions, many of the students were eager to share their experiences with the researcher about learning vocabulary through skits, mini posters, and cooperative group discussions in planning their skits. Marazano

and Pickering (2005, p. 21) stated the importance of students constructing an image to represent the word because "when you ask students to construct a picture, symbol, or graphic representation of a term, they are forced to think of the term in a totally different way." Many of the students expressed this different way of thinking when they spoke about employing their creativity in a novel way to learn vocabulary by writing scripts and creating mini posters.

Tactile and kinesthetic activities seemed to encourage creativity as students described their success in remembering vocabulary when they drew upon nonlinguistic representations (illustrations, graphics) of the vocabulary word as they recalled mini posters produced by them or their peers. The overarching finding was multiple instances of students describing how "fun" VT was. Students reflected on remembering words based on pictorial representations and live skits to reinforce their memory of the target words' meanings. One student discussed how being active in class made it more engaging, saying, "I enjoyed it because everybody was active and they gave their best as me, as I did too."

Even shy students enjoyed the learning process by this woman's descriptive response to the researcher's question about performing skits in VT; "Umm.. I feel like, first of all, I am very shy like to act anywhere but when I act with my classmates I feel very confidence (sic) everywhere and I can act it anywhere."

Students found success in learning new vocabulary with VT because this process was a "fun" experience that required them to begin learning the target vocabulary words with one single new vocabulary word at a time in a manner that afforded them the opportunity to work with their hands by creating a mini poster and then kinesthetically acting out the word in a skit. Throughout this exercise, they could draw upon their personal experiences when creating a poster or while acting out a skit; as well as learning when discussing their group's skit and while observing others in a skit, all of which resulted in the students' ability to remember the meanings of words over time. Students were engaged because they had fun. They enjoyed acting out the words, and the physical engagement created a personal context to help the students remember the meanings of the words. The tactile exercise of making a mini poster and observing other students' mini posters also helped the students to recall the meanings of the words. According to Blachowicz and Fisher (2000), one of their principles of vocabulary instruction is that "students should build on multiple sources of information to learn words through repeated exposures" (p. 504). The multiple sources of information that students were exposed to in VT included the students' repeated exposure to the target words through many different routines: First, their own constructions of mini posters and Word Power Ten; second, their dialogues while constructing their VT skits; third, their exposure to their peer's skits; and finally, their own weekly original narratives using the ten target words.

Students felt smart. Students experienced success in learning new vocabulary in VT because they felt smart. Students were randomly chosen by their teacher to discuss VT and TDI with the researcher in a private room away from their regular classroom. Students were upbeat and happy to report about their experiences with VT. The overarching theme, again, was that students had fun with this new method of learning both the definitional and contextual meaning through experience.

Students favored the one word approach. Researchers and educators have stated that a more effective strategy for teaching vocabulary is to introduce and teach fewer words. Robb (2010) and Gunning (2006) both emphasized the need to teach a smaller amount of words that students will remember compared to numerous amounts of words that students only memorize for a weekly vocabulary test. Gunning believes that when students are reading new content area selections, "twenty or more words is too large a number of new words for students to learn" (p. 342).

Students who participated in VT reported that the initial assignment that included finding ten elements (Power of Ten assignment) for only one word did not feel overwhelming and was manageable.

When students are enjoying learning, they become intrinsically motivated and more engaged in the learning process. What contributed to this motivation were three underlying factors: the students had fun, they felt smarter, and they relaxed with the one word assignment because they found it less burdensome. All of these factors added up to the overarching finding that students remembered the words through their participation in VT.

One student noted, "...if I studied ten vocabulary words in a week and I have to know the meaning, antonym, synonym, sentence from the dictionary, it's going to be too much, so I think it is good if I study one a week and let's say in an amount of time two or three weeks we have studied these words I can see the results…"

Finding #2: A visual representation of the word helped students learn their target words

A student emphasized how the image helped her understand the word when she emphatically stated, " I was able to see it in my eyes, not just hear it."

"It was easier for me because I am a visual learner." Another student drew a connection between the way vocabulary is taught to young children, and how helpful the visual element of VT was for her, "And the picture, I think it's like, even for kids like when they teach them you know they use pictures, and they get it better and they do understand better…"

Finding #3 Acting out the word promoted students' understanding of the multifaceted layers of the word

"But when I act with my classmates, I feel very confident."

Another student stated, "Acting out the story made it - the words - more clear."

And another student, "the body language what they show helps me pick out what they're trying to say."

Finally, another student said, "I learned the words better in skits." "By putting that word into action, you remember that word."

Over and over again, the students spoke about how their participation in VT was a positive, successful experience when learning new vocabulary. Also, students consistently reported that this was a new way of learning that they embraced wholeheartedly because it brought them out of their seats and into their collective imaginations. Because this was a mixed methods study, it supplied the researcher with much more comprehensive and thorough data. As Calfe and Sperling (p. 2., 2010) explained, "we can gather in-depth data from a few students and their teachers to better understand what one of our colleagues once called the 'moisture' of their literacy experiences"

4. Discussion

As a follow up to the seminal research (Robb, Sinatra, & Eschenauer, 2014), the current research built on the previous research by examining the impact of VT instruction on urban community college students whereas the previous research examined the impact on 8th grade students. Both research studies found that the students who received VT first made significantly greater gains during the VT treatment (Weeks 1-3) than during the TDI treatment (Week 4-6). Robb, Sinatra and Eschenauer (2014) found that students made significantly greater gains during the VT treatment regardless of treatment order (VT first versus VT second). In contrast, the results from this research indicated that the students who had received the VT treatment first made significantly greater VT gains as compared to the VT gains for students who had received VT second.

Vocabulary Theatre provided students an opportunity to teach their peers their own personalized understanding of sophisticated new vocabulary. Through this approach, students were able to develop a deeper understanding of the meaning and application of a vocabulary word as they created their own scripts to perform vocabulary vignettes illustrative of the words. They were also able to augment their understanding of the word by observing their peers' skits. As a final application of their understanding of the words, students then wrote creative narratives using the ten weekly vocabulary words.

According to Heibert and Kamil (2005), students need to understand academic vocabulary presented orally, through print, as well as receptive or productive occurrences. Students need to understand and apply academic vocabulary in content area classrooms and on high stakes testing. This understanding of vocabulary is essential in order for students to succeed both in school and in the workforce. VT instruction provides students with vocabulary instruction that immerses students in the word knowledge, provides students with repeated exposures to the word, is active and allows for personalization of word learning as recommended by Blachowicz and Fisher (2000).

Vocabulary development occurs on three major levels: associative, comprehensive, and generative (Gunning 2006). The associative level involves students learning a word's meaning in only one context, often through the use of a dictionary. When a student understands a word and they are able to expand on that understanding through the use of synonyms and antonyms, analogies, classifications and connotative meanings. Finally, the generative level is attained when students are independent in their ability to use words with variation of the word meaning in different areas of literacy, such as speaking and writing. The third level of vocabulary development allows students to understand words across contexts. Using the VT approach, students are taken through all three vocabulary development levels, starting with the associative, when they are first introduced to their assigned word, the comprehensive as they worked in their roles as mini researchers, and then the generative in the development of the skits that used their words correctly, teaching those words to the rest of the class. A student reiterated this thought when he said, "In order to create a skit you would have to know the meaning of the vocabulary and find a common theme for the play using those words, then bring in ideas for the scenes."

Concluding Remarks

Vocabulary Theatre provides students with an opportunity to understand a word's meaning from a different perspective through creating their own understanding of the word graphically and through a skit as well as watching other students perform. One student reported her perspective of this principle when she stated, "Watching other people perform gave me another perspective on how they would use the words like by adding music." According to Marzano and Pickering (2005), students are able to consider a different perspective for a word's meaning when they construct an image to represent the word. Furthermore, Blachowicz and Fisher (2000) similarly conclude that this repeated exposure to

vocabulary in an important principle of good vocabulary instruction.

In addition to students understanding a word meaning through different perspectives, students also indicated that the rich peer interactions and peer feedback supported a deeper understanding of the vocabulary words. Students constructed and shared knowledge of the vocabulary words through dialogue and the development of the skit. One student indicated, "Watching others helped me to learn words faster than memorizing the meaning of a word."

The VT method fosters collaboration between students as they work together through exploration, hands-on experience, and peer teaching. The requirement for students to teach their word through multiple points of experience (synonym, original sentence, etc.) meant that students were able to reach the generative level of vocabulary development before even performing their skit, in that they were using their own schema to teach their word to their peers. Focusing their attention on only the one word they were assigned allowed students to be more engaged, and students reported being free to explore multiple meanings and forms of their word. Moreover, students are active participants in VT because the choices they make in how to use their target words in their skits is ultimately connected to their cultural beliefs and conditions and experiences. The originality of the VT approach might be particularly suited to young adolescents, by encouraging interaction with classmates and the learning of new vocabulary in a more motivating way, leading to better mastery of new words.

VT promotes the development of syntactic complexity, and that word order in their skits reveals cultural context. VT encourages students to bring those experiences and backgrounds to each skit they create. Additionally, VT allows the students an opportunity to enact the meaning of a word through multisensory modalities such as dance or music or art or perhaps all three. This communication gives voice to their discourse while enlightening other students not only about their culture but also about how to distinguish how to use these academic words correctly. Ladson – Billings (2015) explains, "In each of the classrooms where teachers practiced culturally relevant pedagogy, students were in multiple instances encouraged and rewarded for developing more robust problem-solving repertoires." Additionally, Chadjed (2020) states, "Culturally sustaining practices (CSP) allow, invite, and encourage students to not only use their cultural practices from home in school, but to maintain them." VT gives students the agency to express their culture with words.

Students shared their perspectives on taking ownership for teaching their one word to peers. "I believe this is a good way to learn new words because while we are up there performing our skits as a group, we learned from each other and it was a good way to communicate with group members learning what each of their words means and how we could use those words in a sentence."

5. Limitations

There were potential biases and limitations in this study. One potential limitation of this study may have been with the 60 selected words themselves. While it was the intention of the researchers to choose words that would be challenging as well as beneficial for the students to know in an academic setting, it is possible that these abstract words may have caused the students to disengage. Therefore, students may not have been motivated to learn the words during the TDI condition. It is also possible that the words were chosen with bias towards words found only in SAT published sources.

Another limitation exists with regard to the sample size. The nature of the remedial Course A allows and tolerates absences, leading to inconsistencies in the collection of pre and posttest scores. Even Course B represents an additional burden to students, in that though they are working towards college credit, they are required to spend an additional amount of time in class working on skill development they might feel they don't need. If the students were in content classes working toward their major, they might have been more motivated to attend class. The lack of significant results should be interpreted with caution as the small sample size might have impacted power and increased the likelihood of nonsignificant results. The lack of significant results for both the main effects and the tests of simple effects does not necessarily mean that there was no treatment effect. According to Fagley & McKinney (1983), lack of power may result in nonsignificant results. According to Cohen (1992), in order to detect a large effect size, a minimum sample size per group at the .01 alpha level to meet a minimum power of .80 would have ideally been 38 students per group. Unfortunately, due to the high absence rate of this population, the minimum needed samples size to achieve .80 power was not able to be met.

Therefore, further research with a larger sample size per group would need to be conducted in order to fully understand the impact of VT instruction on the population studied in this research.

Different implementations may have affected the results. Although the second professor in the study was trained in implementing VT and TDI by the primary researcher, it is possible methods varied slightly between classrooms, and slight inconsistencies in the implementation of each phase may have occurred.

Finally, in reviewing the results and findings of the present study it is necessary to consider the ways in which it was

different from the seminal study which informed this work. In a comparison of the 8th grade students from the first study to the mostly remedial college freshmen from the present study, the following should be noted. First, the population of 8th graders consisted mostly of white students attending a private Catholic school. Moreover, these students would see each other daily in their respective classrooms. Conversely, the population of college students was older with more diverse backgrounds and with most attending a class they did not initially want to partake in, so they did not see each other as frequently. Also, college students in these courses are lagging behind in their overall academic skills. "Developmental reading students have a variety of academic weaknesses, including deficient oral and written communication skills. Not surprisingly, some of these weaknesses are a direct reflection of students' limited vocabularies. Advanced communication skills are an integral part of higher education, so students may be at an academic disadvantage if these skills are not well developed" (Willingham & Price, 2009, p. 92).

What's interesting to note is that the quantitative data shows a significant difference in the gains in the first phase for students from both studies. Conversely, in the current study, there were no significant differences between the TDI and VT gains for the second phase. High rates of absence could be one of the reasons whereas students were not exposed to the words as often as the students in the first study.

6. Future Research and Implications

Future research might focus on returning to middle school-aged students, but including more diverse populations. Looking to implement and study the efficacy of Vocabulary Theatre among urban students and those from low socioeconomic backgrounds might shed light on a potentially effective and inexpensive way to improve vocabulary acquisition and also reading comprehension. Another option for future research might be to study the Vocabulary Theatre model with college students in content-area classes. Especially given the small sample size which resulted from high absence rates in remedial classes, it would be interesting to explore how a participant population that is more invested in their course might benefit from VT that focuses on words that are important to their chosen course of study. Finally, adding an element of morphology to the Power of Ten assignment could potentially create more self-sufficient learners in that they would gain the ability to break words into their roots and affixes. The ability to play with word forms can foster independence in learning, recognizing, and decoding vocabulary words. A study that added this element would be a valuable addition to the research on vocabulary acquisition.

This study reinforces the need and value of vocabulary education, and the implications are potentially far-reaching. Opportunities for access to new vocabulary exist every day, but students thrive when they are able to work with each other, serving as teachers, and using their own creativity to develop contexts for new words. The VT condition improved the students' ability to learn new vocabulary, and can be an essential strategy for helping students understand vocabulary acquisition and in turn improve their reading comprehension. Vocabulary Theatre can be used by educators in a variety of settings to complement their curriculum.

References

Adams, M. J. (2009). *The challenge of advanced texts: The interdependence of reading and learning. In E.H. Hiebert* (Ed.). Reading more: Reading better: Are American Students Reading Enough of the Right Stuff? (pp. 163-189). New York: Guilford.

Beck, I. L., McKeown, M. G., & Kucan, L. (2002). *Bringing Words to Life: Robust Vocabulary Instruction.* New York, NY: Guilford.

Beck, I. L., Perfetti, C. A., & McKeown, M. G. (1982). Effects of long-term vocabulary instruction on lexical access and reading comprehension. *Journal of Educational Psychology, 74*(4), 506-521. https://doi.org/10.1037/0022-0663.74.4.506

Beck, I., & McKeown, M. (1991). Conditions of vocabulary acquisition. In R. Barr, M.L. Kamil, P Mosenthal, & P.D. Pearson. (Eds.). *Handbook of Reading Research, Vol. 2* (pp. 789-814). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Blachowicz, C. L. Z., & Fisher, P. (2000). Vocabulary instruction. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr. (Eds.). *Handbook of Reading Research,* Vol. 3 (pp. 503-523). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Blachowicz, C. L. Z., & Fisher, P. (2004). Vocabulary lessons. *Educational Leadership, 61*(6), 66-69.

Bloom's taxonomy. (2020). In Encyclopedia Britannica. Retrieved from https://academic-eb-com.bmcc.ezproxy.cuny.edu/levels/collegiate/article/Blooms-taxonomy/607114

Calfee, R., & Sperling, M. (2010). *Mixed Methods: Approaches to Language and Literacy Research.* New York, NY: Teachers College.

Carnevale, L. (2010). *Hot Words for the SAT (4th ed.)*. Hauppauge, NY: Barron's Educational Series, Inc.

Chajed, A. (2020). *Culturally Sustaining Pedagogy: An Introduction.* Center for Professional Education of Teachers https://cpet.tc.columbia.edu/news-press/culturally-sustaining-pedagogy-an-introduction

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences (*2nd ed.) Hillsdale, NJ: Lawrence Erlbaum.

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155-159. https://doi.org/10.1037/0033-2909.112.1.155

Corbin, J., & Strauss, A. (2008). *Basics of Qualitative Research* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Cromley, J. G., & Azevedo, R. (2007). Testing and refining the direct and inferential mediation model of reading comprehension. *Journal of Educational Psychology, 99*(2), 311-325. https://doi.org/10.1037/0022-0663.99.2.311

Cunningham, A. E., & Stanovich, K. (1997). Early Reading Acquisition and Its Relation to Reading Experience and Ability 10 Years Later. *Developmental Psychology, 33*, 6. 934-945. https://doi.org/10.1037/0012-1649.33.6.934

Davis, F. B. (1942). Two new measures of reading ability. *Journal of Educational Psychology*, *33*, 365-372. https://doi.org/10.1037/h0053582

Fagley, N. S., & McKinney, I. J. (1983). Reviewer bias for statistically significant results: A reexamination. *Journal of Counseling Psychology, 30*(2), 298-300. https://doi.org/10.1037/0022-0167.30.2.298

Green, S. W., & Wolf, I. K. (2010). *Barron's SAT (24th ed.)*. Hauppauge, NY: Barron's Educational Series, Inc.

Grimes, S. K. (1997). Underprepared community college students: Characteristics, persistence, and academic success. *Community College Journal of Research and Practice, 21,* 47-56. https://doi.org/10.1080/1066892970210105

Gunning, T. G. (2006). *Assessing and Correcting Reading and Writing Difficulties* (3rd ed.). Boston, MA: Pearson Education, Inc.

Hiebert, E. H. & Kamil, M.L. (Eds.). (2005). *Teaching and Learning Vocabulary: Bringing Research to Practice.* Mahwah, New Jersey: Lawrence Erlbaum Associates. https://doi.org/10.4324/9781410612922

Hiebert, E.H. (2020). The core vocabulary: The foundation of proficient comprehension. *The Reading Teacher*, 73(6), 757-768. https://doi.org/10.1002/trtr.1894

Horn, L., & Nevill, S. (2006). *Profile of Undergraduates in U.S. Postsecondary Education Institutions: 2003-2004: With a Special Analysis of Community College Students* (NCES 2006-184). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, DC. https://nces.ed.gov/pubs2009/2009152.pdf

Karlsen, B., & Gardner, E.F. (1996). *Stanford Diagnostic Reading Test (4th ed.)*. San Antonio, TX: Harcourt Brace.

Ladson-Billings, G. (2015). Getting to Sesame Street? Fifty Years of Federal Compensatory Education. *RSF: The Russell Sage Foundation Journal of the Social Sciences, 1*(3), 96-111. https://doi.org/10.7758/rsf.2015.1.3.05

Martin, K., Galentino, R., & Townsend, L. (2014). Community college student success: The role of motivation and self-empowerment. *Community College Review, 42*(3), 321-241. https://doi.org/10.1177/0091552114528972

Marzano, R. J., & Pickering, D. J. (2005). *Building Academic Vocabulary: Teachers' Manual.* Alexandria, VA: Association for Supervision and Curriculum.

Meyers, L. S., Lawrence, S., Gamst, G. G., & Guarino, A. J. (2013). *Applied Multivariate Research: Design and Interpretations (2nd Ed.).* Thousand Oaks, CA: Sage.

Moats, L. (2001). Overcoming the language gap. *American Educator,* 5-9.

Nagy, W. W., & Scott, J. A. (2004). Vocabulary processes. In R.B. Ruddell, & N.J. Unrau. (Eds.). *Theoretical models and processes of reading (5th ed.)* (pp 574-593). Newark, DE: International Reading Association.

Nagy, W., & Townsend, D. (2012). Words as tools: Learning academic vocabulary as language acquisition. *Reading Research Quarterly, 47*(1), 91-108. https://doi.org/10.1002/RRQ.011

National Governors Association for Best Practices; Council of Chief State School Officers. (2010). *Common Core State Standards, Literacy*. Washington, D.C. Author.

National Institute of Child Health and Human Development (NICHD). (2000). *Report of the National Reading Panel. Teaching Children to Read.* (Tech.Rep.No.Publication No. 00- 4769). Washington, D.C.: U.S. Government Printing Office.

Ogle, D., Blachowicz, C., Fisher, P., & Lang, L. (2016). *Academic Vocabulary in Middle and High School.* The Guilford

Press: New York.

Olafsdottir, S., Laster, B., & Stefansoon, K. K. (2020). Adolescent learning of academic vocabulary in Iceland. *Journal of Adolescent and Adult Literacy, 4*(1), 79-87. https://doi.org/10.1002/jaal.1055

Paivio, A. (1990). *Mental Representations: A Dual Coding Approach.* USA: Oxford University. https://doi.org/10.1093/acprof:oso/9780195066661.001.0001

Perna, L. W. (2000). Differences in the decision to attend college among African Americans, Hispanics, and Whites. *The Journal of Higher Education, 71,* 117-141. https://doi.org/10.2307/2649245

Reed, D. A. (2004). *Vocabulary Plus for the New SAT: Vocabulary, Reading, and Writing Exercises for High Scores (Books 1-4).* Cheswold, DE: Prestwick House, Inc.

Robb, E., Sinatra, R., & Eschenauer, R. (2014). Vocabulary Theatre: A Peer-teaching approach for academic vocabulary acquisition. *Journal of Education and Training Studies, 2,* 117- 126. https://doi.org/10.11114/jets.v2i1.247

Robb, L. (2010). *Teaching Reading in Middle School: A Strategic Approach to Teaching Reading that Improves Comprehension and Thinking.* New York, NY: Scholastic.

Sadoski, M. (2005). A dual coding view of vocabulary learning. *Reading & Writing Quarterly*, *21*(3), 221-238. https://doi.org/10.1080/10573560590949359

Shostak, J. (2005). *Vocabulary Workshop Levels C-F.* New York, NY: William H. Sadlier- Oxford.

Snow, C., Lawrence, J. F., & White, C. (2009). Generating knowledge of academic language among urban middle school students. *Journal of Research on Educational Effectiveness, 2*(4), 325-344. https://doi.org/10.1080/19345740903167042

Stahl, S. A. (1986). Three principles of effective vocabulary instruction. *Journal of Reading, 29*(7), 662-668.

Stahl, S. A. (1999). *Vocabulary development.* Cambridge, MA: Brookline Books.

Stahl, S. A., & Fairbanks, M. M. (1986). The effects of vocabulary instruction: A model- based meta-analysis. *Review of Educational Research, 56*(1), 72-110. https://doi.org/10.3102/00346543056001072

Walpole, M. (2003). Socioeconomic status and college: How SES affects college experiences and outcomes. *The Review of Higher Education, 27*, 45-73. https://doi.org/10.1353/rhe.2003.0044

Willingham, D., & Price, D. (2009). Theory to practice: Vocabulary instruction in community college developmental education reading classes: What the research tells us. *Journal of College Reading and Learning, 40(*1), 91-105. https://doi.org/10.1080/10790195.2009.10850326

Appendix A

Vocabulary Theatre Skit

<u>VT SKIT – 1:52 mins – Five Students – Fall 2018</u>

Two Black male students

One Black female student

One Asian female student

Two Hispanic female students

<u>Five Target Words:</u>

Meticulous

Austere

Aloof

Affable

Bombastic

Scene – Target Store in NYC

Mother and daughter walk into a Target Store. Mother appears to be agitated and pulling her daughter next to her.

Mother screams: "Oh my God, why you walk so slow?" "I should have just left you home." Target Employee: "Welcome to Target, my name is Liv."

Mother screams at daughter: "Will you please stop touching those! (*Daughter is throwing items on the floor.)*

Liv: "Ma'am, I am sorry to interrupt but maybe you should be gentle and less **austere** towards your child."

Mother: "Excuse me?" (*stated with exasperation*) Liv: "I mean, I'm just saying."

Mother: "You are supposed to be **affable** to all your customers but this has nothing to do with that. So, let's just buy all the stuff off this desk."

Another employee of Target: *Talking to Mother -* Excuse me – I am very **meticulous** to this situation – *Talking to Liv –* I think you should just ignore this situation and apologize to the customer. *Turns to Mother –* "I am sorry Ma'am."

Liv: "Ma'am – I am so sorry for interfering" (*stated through clenched teeth*).

Manager of Target runs in : "I am so sorry" (*Manager extends his hand out to the mother to shake her hand.*)

Manager: "I was just advised of the situation. I do apologize for my staff and her involvement in your business. Liv this is why we need to be **aloof** from customers' personal situations and I think it was very good that you apologized and I think from now on this should not happen again." "Do you understand?"

Liv: "No."

Manager: "Why no?" "I didn't think that was possible, but OK."

New customer (*interrupts Manager):* "I am sorry guys but I am really interested in those

bombastic words you used. Could you give me the definitions, please?" Manager: "Sure – **aloof** means to be distant or cold, especially in emotions." Liv: "Austere means to be cold or grim with your attitude or facial expression." Other Target employee: "**Meticulous** means paying strong attention to detail." Mother: "**Affable** means friendly."

New customer: Thank you so much. Manager: "Oh, you're welcome."

Appendix B
Weekly Vocabulary Theatre Words

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
condone	decorum	apathy	affable	ambivalent	altruistic
fallacy	discordant	bolster	aloof	eclectic	appease
gregarious	duplicity	coercion	austere	extol	erudite
hedonist	ephemeral	inane	bombast	insipid	expedient
jocular	extraneous	lament	cajole	lethargic	fastidious
paucity	frugal	laud	concur	nefarious	hyperbole
redundant	garrulous	mitigate	enigmatic	opulent	ominous
sedentary	haughty	mundane	feasible	rectify	predator
sycophant	ostentatious	precocious	meticulous	taciturn	quagmire
terse	verbose	recant	rancor	tenacity	tantamount

Appendix C
Example of Mini Poster

Meticulous

Showing extreme care
in details; thorough, precise

The man was so meticulous; he
trimmed his lawn so every strand
of grass was perfectly 1-inch high.