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Effective Differentiation Of Vocabulary Instruction For Upper Elementary Classrooms

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EFFECTIVE DIFFERENTIATION OF VOCABULARY INSTRUCTION FOR UPPER ELEMENTARY CLASSROOMS

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CHAPTER ONE

Introduction

Chapter Overview

"Reading is fundamental" as the saying goes. So much of what is being taught and what is important for students to learn rests on their ability to comprehend and expand upon what they read. Yet there are a multitude of reasons why reading comprehension might remain low by the end of elementary school, when students really need to be prepared for more abstract, critical thinking, and some students enter school not having mastered the same literacy skills at home as their peers. One of the major components of reading comprehension is possessing strong vocabulary skills. If students lack the ability to solve for unknown words, their fluency and comprehension will suffer as a result. Vocabulary skills can be especially challenging for English Language Learners, who might not possess the background knowledge or same exposure to English language as some of their peers. Since vocabulary skills are so strongly linked to strong reading comprehension, I wanted to investigate the best practices for effective vocabulary instruction. But which curriculum and techniques are best? What issues does the teacher need to consider when planning for differentiated instruction? It can be quite overwhelming for new and experienced teachers alike. There is no "one size fits all curriculum" that is going to work best for each student, or even all classrooms. This is why I chose the research question, *How can I develop effective differentiated vocabulary instruction materials for upper elementary classrooms?*

Researcher Background

I have been interested in being a teacher since I was a child. My younger sister was always made to play school and be my pupil, along with various dolls and stuffed animals. I remember happily creating lessons and materials for our pretend classes for hours on end. In highschool, I was a mentor for an afterschool program at a local elementary school. The program focused on providing enrichment activities and homework help for the students. I also babysat often for neighbors and my younger cousins. Through these experiences, I continued to find joy in developing interesting activities and games, and my passion for working with children continued to grow.

Once enrolled in college, it did not take me long to decide to double major in elementary education and psychology. During my second student teaching placement, I learned about the kind of teacher I wanted to be from my mentor teacher. The setting was a diverse mainstream public school fifth grade classroom with twenty students. Some students were very new to the U.S, and their parents did not speak much English at home, giving them the additional hurdle of learning English along with new material. My mentor teacher developed incredibly enriching and engaging writing activities for her students, despite some of them possessing low reading comprehension skills. I was surprised to find how well the students did, and how motivated they were by the activities provided. I saw firsthand the kind of positive learning environment that could exist with the right guidance and engaging activities.

Later on when I started teaching, I first worked as an education assistant and substitute teacher in special education. This was a co-op district, meaning all of the students in the schools I worked in had been sent from their home districts for severe psychological or behavioral disorders or problems. Some students could handle a lot of academic work and were highly

motivated, but others either lacked motivation or needed academic accommodations. While I did not gain much experience developing materials, I saw how every single classroom in this district was run differently, depending on the needs of their students, and even used different resources depending on student interest and motivation. This also showed me how important it is to create a flexible, differentiated curriculum.

The rest of my teaching experience before starting this process had been abroad working in private, public, and private international schools in South Korea, Sudan, and Thailand. Again I was struck by how vastly different each school could, in terms of curriculum provided and expectations, the motivational level of the student population, the general experience level of teachers at each school, and also the quality and quantity of resources provided. At first, I remember being one of those teachers who had a lot of ideas and who tried to do too many things at once. It never helped that I stayed in each position only one or two years, and developing curriculum can take time. Whether the students are ELL, gifted, or mainstream there must be an easier way to implement the vocabulary curriculum no matter what is being taught. I realized fairly quickly that it is not beneficial to students to try many new things at once. Thus I learned about the importance of sticking to a few well-planned and well-executed ideas at a time, rather than immediately changing if things do not go as planned. The problem was that with the curriculum and resources provided differing so much at each location, I continued to struggle to decide which methods and materials were the most effective. This was especially true when it came to vocabulary instruction. In the private schools I first worked at in Korea, there was not much curriculum available, except for basal readers for reading comprehension. While I was not experienced enough to adapt the curriculum much in that time, I noticed how little motivation the

students had for reading these books, and I did not blame them. In the public schools in Korea, bland workbooks were provided along with speaking and listening exercises, and then word lists for students to memorize. The students were definitely not motivated by these exercises, and over time I started to develop ways to make the exercises more engaging and interactive. Once I moved on to international schools, I thought that things would improve. I found that for reading and literacy, again large textbooks with anchor texts were provided, along with word lists for each anchor text. Fortunately, we did not have to use the textbooks, and instead I got to design my own curriculum. At first, I was told to at least use the vocabulary and grammar exercises that accompanied the textbook, even though the exercises and target words largely related to the context of stories in the textbook, hence were not relatable enough for my students. Thus the reason for my interest in creating materials that might be easily adapted for different settings and student groups.

I started to compile as many resources as I could for vocabulary instruction so that I might create more cohesive, effective materials that were related to the novels we were reading. I really enjoyed trying to create and adopt ideas and resources that helped to increase my students motivation, engagement, and understanding. I also observed how different strategies worked better or were more motivating for different students, and how many of the students were motivated to work with their peers on projects and tasks.

Through my past experiences and also academic coursework at Hamline, I have also learned about the importance of reflecting on my progress and lessons as I go along. This practice has helped me consider what has and has not worked, and how to better plan and

implement lessons in the future. Differentiating is not about having a lot of different ideas, and just seeing what sticks. It also requires careful planning and execution.

In my time teaching abroad, I had some students who were nearly fluent in English, and others who could barely read or speak in English at the beginning of the year. Some showed a lot of interest in reading, and others I had to work with to build their interest in reading. When I returned to the U.S. last year, I started working within a public charter school in the twin cities area of Minnesota. The school where I work now has many ELL students, and I am again finding the same gaps in the vocabulary curriculum and problems that I faced while teaching abroad. I think being able to properly differentiate the curriculum will be very helpful to my current and future teaching.

Project Rationale

At the national level, I feel that we are taking a step backwards in terms of offering quality education to our students. Less funding is going towards public schools, and there is also too much focus on standardized testing and grading, even at the elementary level. When I returned to the United States I did not think I would continue to experience the same deficits in the curriculum as I did while abroad, and it is clear that this is a problem faced by schools everywhere (though not every school, of course). The textbooks and word lists provided to students here in the states are the same as those my students used abroad. There still is no cohesive formula for vocabulary instruction provided. I met a couple of new teachers just this school year who seemed very overwhelmed by how little guidance they were provided. While I have now found this kind of freedom in choosing curriculum better, it took me some time to get to where I am now. Also, I think there has to be a balance between offering too much structure

and too little structure. Thus my desire to create effective vocabulary tools and materials which can be widely used and adapted, and are straight forward enough that even beginning teachers feel confident using them.

I hope that I can learn more about best practices for vocabulary differentiation in particular. I think it will benefit me in my future teaching practices, and hopefully also help future educators. There are so many ideas for how to differentiate, and how to differentiate for different populations of students, and it can also be hard to determine how to assess students properly to know which adaptations or differentiations to make. I hope to discover some ways to integrate different techniques, and to know how to assess students, to be able to offer the best differentiation for them.

Summary

This topic is relevant to my current teaching position, the work I am doing toward my graduate degree as well as my certificate in ESL in the mainstream classroom, and also to the work I plan to do in the future. Through all of these experiences and my schooling, it became clear that students have so many different needs and abilities, and it is vital to make sure that the curriculum can encompass all of these needs. Thus, the importance of ensuring differentiation.

CHAPTER TWO

Literature Review

Chapter Overview

It is almost universally agreed upon that having a strong vocabulary is linked to having strong reading comprehension (Barnes et al., 2017). Yet how vocabulary is taught, along with the content and assessment of that instruction, are topics of much debate. These issues are central to the research question: *How can I develop effective differentiated vocabulary instruction materials for upper elementary classrooms?* Chapter one explained my interest in studying this topic. Chapter two first examines the importance of teaching vocabulary instruction, followed by current research on effective vocabulary instruction. The next section focuses on reasons and methods for differentiating vocabulary curriculum for diverse learners. Finally, methods of assessment and measuring growth in learner vocabulary skills will be discussed.

Vocabulary Instruction

Why is it important? Learning vocabulary is more than simply being able to define a word or the ability to read many different words. Having a strong vocabulary means possessing a deep understanding of a wide range of words and how these words can be used in different contexts and be used to make connections in the world (Hirsch, 2003). Research has long supported the idea that vocabulary instruction has a strong effect on a student's reading comprehension ability. (Connor et al., 2011). Additionally, a child's ability to understand and use vocabulary successfully affects their capacity for engaging effectively in different academic

activities (Barnes et al., 2017). If a student does not have a strong vocabulary, it is generally understood that their comprehension of the content will be greatly hindered, especially as a student progresses to higher grades where the content and vocabulary becomes more complex (Teng & Reynolds, 2019). Despite this knowledge, many students only receive about five minutes a day on average of direct vocabulary instruction (Connor et al., 2014). By fourth grade, only close to 34% of students in the United States can read at or above proficiency level (Connor et al. 2014). This strongly suggests that more attention and time needs to be given for quality vocabulary instruction in schools.

Sources vary on an exact number of vocabulary words students should be learning every year. According to German et al. (2012), students should learn between 3,000-4,000 new words per year, whereas Beck et al. (2002) recommend around 2,000 to 3,000 new words per year, and comprehend about 8,400 by the age of eleven (as cited in John & Vance, 2014, p. 257). To add to the uncertainty, the number of vocabulary words being learned is also most likely dependent on a students' starting vocabulary knowledge. According to John and Vance, children starting school with higher vocabulary ability might initially know up to 4,000 more root words than children with the lowest vocabulary abilities. This gap in knowledge can cause some students to fall further behind over time, causing a steadily increasing deficit. According to Hirsch (2003), a twelfth grader with highly proficient reading skills understands around 60,000 to 100,000 words, which is approximately four times as many words as a student with low proficiency. According to Gunning (2002), many researchers agree that comprehension of a text is problematic if the reader cannot comprehend at least 95% of the vocabulary. Having knowledge of around 95% of the words means the reader can most likely understand the main idea and be more likely to

deduce the meaning of the remaining unknown vocabulary words (Hirsch, 2003). While the exact number of words students should know varies, what is clear is that there is a sizable gap between the vocabulary abilities of higher-level students and lower-level students. Quality vocabulary instruction needs to ensure that these students are given equal opportunities to learn.

Unfortunately, many children enter school with a deficit in their vocabulary and reading comprehension abilities. There are several interrelated factors at the root of this problem; for example, students coming from low-income homes may lack the same vocabulary abilities of their peers (Santisteban, 2014). Hirsch (2003) notes that the greatest disparity between socioeconomic groups is the language gap. The child's home environment also plays a role in their readiness for learning. "A child's communicative environment- providing a range of books and toys to encourage talking, playing and reading, visiting a library, keeping TV time to a minimum-had more influence on future achievement than innate ability, material circumstances, or quality of school provision" (John & Vance, 2014, p. 256). Additionally, the amount and quality of speech children ages 0-3 are exposed to has an effect on language ability and IQ (John & Vance, 2014). Students who are EL learners face the unique challenge of learning a new language while also trying to master the content (Gallagher et al., 2019).

As mentioned, this disparity between students with strong vocabulary skills and students with weak skills only grows with time, since the students with smaller vocabularies have a smaller word bank to build upon to help them understand new vocabulary, and thus they will continue to fall further and further behind (John & Vance, 2014). According to the National Assessment of Educational Progress (Jones et al., 2016), a third of fourth-graders read below the benchmark reading level for fourth grade.

One way researchers discuss the widening deficit is The Matthew Effect, which is used to explain how children who start with larger vocabularies and stronger vocabulary skills typically continue to improve and learn more quickly and abundantly than students who start with small vocabularies (Barnes et al., 2017). According to Stanovich (2009), "children with inadequate vocabularies-who read slowly and without enjoyment-read less, and as a result have slower development of vocabulary knowledge, which inhibits further growth in reading ability" (as cited in Gallagher et al., 2019, p. 85). In early elementary, the differences in vocabulary are not as great since the material being learned is less complex. As students move up to higher grade levels, the disparity in vocabulary ability increases between those who started with larger vocabularies and those with smaller vocabularies. In a study done by Chall (as cited in Hirsch, 2003, p. 10) on the reading and vocabulary abilities of students from low income families, the students were able to perform at or above grade level on national reading tests up until third grade. However, by fourth grade the same students' scores began to steadily decline, and continued to fall as students reached higher grade levels. Hirsch (2003) refers to this as the "fourth-grade slump" (p. 10), because this is typically the time when the content being learned becomes more complex, thereby magnifying the challenges of students who are already struggling.

Dickinson et al. (2017) state that students with very low vocabulary knowledge will, on average, need to be able to learn approximately 2,000 root words every year in order to catch up to the average vocabulary ability for their grade level. According to Biemiller (as cited in John & Vance, 2014), for , it might take students with small vocabularies and weaker vocabulary skills up to five to six years to be able to perform at the same level as their on-level peers. Other

studies have suggested the time frame might be up to seven years (Gallagher et al., 2019). Given these disparities in students' abilities and preparedness for learning, it is crucial for educators to be able to provide quality vocabulary instruction that is effective for all students.

Instructional Approaches. Those who are not in the field of education may not recognize the kinds of decisions regarding instruction and content. According to the National Reading Panel, students' reading skills improved when the instruction focused on building vocabulary (Connor et al., 2011). In order to provide effective instruction, teachers need to ensure they provide enough time for direct instruction and clarification of vocabulary words and skills (Connor et al., 2014). Teachers should work to help students gain an understanding that vocabulary skills need to be mastered and their vocabularies expanded in order to successfully engage in reading (Connor et al., 2014).

When discussing vocabulary instruction, one essential part of the conversation revolves around the merits of explicit versus implicit (incidental) instruction. The National Reading Panel (as cited in Gallagher et al., 2019) recommends that vocabulary instruction be taught both explicitly and incidentally. In explicit instruction, the teacher models using context to find the meaning of unknown words, teaches inferencing, and important vocabulary for understanding the content (usually before reading the text), through methods such as providing definitions, synonyms, or examples and non-examples (Gallagher et al., 2019). In contrast, incidental (aka implicit) learning "involves learning naturally in a complex, stimulating environment, without conscious cognitive processing" (Page & Mede, 2018, p. 371).

Many sources state that explicit instruction is more important and helps students learn vocabulary and strategies faster (Dickinson et al., 2017). Explicit instruction is especially

helpful for students lacking these skills and with lower vocabulary abilities (Connor et al., 2011) since lower-level students need additional support to build their vocabularies and acquire effective vocabulary strategies (Page & Mede, 2018). According to Connor et al. (2011), students receiving more explicit instruction attained improved comprehension than those who did not receive explicit instruction. When the amount of explicit instruction was increased, along with interaction with target words was increased by 400%, children were able to learn a significantly greater number of target words (John & Vance, 2014). It has also been shown that explicit instruction helps to lessen the Matthew Effect, and can help to make learning opportunities more balanced. (Dickinson et al., 2017). Research shows that in a study conducted on quality of learning of vocabulary through either explicit teaching or incidental learning, students knew more of the vocabulary words learned through explicit instruction on a post-test (Dickinson et al., 2017).

Additionally, a study conducted with K-2 students compared the vocabulary growth of the students learning new vocabulary either through merely being exposed to the words, or explicitly being taught and explained definitions of the words. The students who were taught definitions showed a 28% growth in vocabulary production than those who were only implicitly taught the new vocabulary (Dickinson et al., 2017). Lesaux (2010) also completed a study on the impact of explicit instruction. Students from seven different middle schools, 476 participants total, participated in the 18-week long intervention program. The students were taught important vocabulary words in context, and also received direct instruction from the teacher to help build inferencing and other vocabulary skills and strategies. All of the students showed significant

improvement in their vocabulary and reading skills at the conclusion of the program. The positive results were attributed to the use of explicit instruction.

While explicit instruction is a crucial component of quality vocabulary instruction, Hirsch (2003) notes that sole use of explicit instruction is not as beneficial as integrating opportunities for incidental vocabulary learning as well. According to Rosenshine and Mesiter (1994), six class periods was sufficient for instructing students on vocabulary and comprehension strategies. That being said, additional explicit teaching is most likely beneficial for lower-level learners.

Beck et al. (as cited in Hirsch, 2003) have determined that it is possible for students to be explicitly taught approximately 400 words per school year. While this amount is fairly substantial it is far from the target recommended quantity that a student should learn per school year. Therefore, incidental instruction is also necessary (Gallagher et al., 2019). Incidental learning is typically accomplished through wide reading, which is reading from a wide range of different contexts and genres, as well as listening, and speaking activities (Gallagher et al., 2019). Many sources agree that wide reading is one of the best methods for incidental vocabulary learning (Ilter, 2019). According to Dickinson et al. (2017), most vocabulary is learned through incidental learning. Swanborn and deGlopper (1999) found that while reading, students were able to gain an understanding of around 15% of the unfamiliar words through incidental learning. Children can also acquire understanding of new words through hearing the words as a part of a story being read aloud, and hearing the words used to describe pictures and events in a story.

Informal conversations both at home and at school also facilitate incidental vocabulary learning. Through reading, children can be introduced to many new words quickly, and the

teacher can aid in their understanding by providing some comments and hints about the text (Dickinson et al., 2017). Reading is considered to be the "most consistent gateway to vocabulary learning, with a fixed effect size of 0.47" (Dickinson et al., 2017, p. 343).

One disadvantage of incidental learning is that lower-level learners, including EL students, do not have the comprehension skills needed to understand the main idea or most of the vocabulary in many grade-level texts (Teng & Reynolds, 2019). While learning words in context can be very helpful for many on-level students, it can be challenging for students with low vocabularies who lack the strategies and context needed to solve for new words (John & Vance, 2014, p. 257). According to Dickinson et. al (2017) gaining familiarity to a variety of original words is helpful to all students, and is of greatest use to students who "are more able to construct meaning purely through language" (p. 342). Leslie and Caldwell (2011) state that students who cannot properly comprehend a text and who also cannot understand the vocabulary of a text will not be able to engage with the material in a meaningful way, in print or verbally. In other words, there is not much point in providing much instructional time for incidental learning for low-level learners, until they have had a chance to strengthen their vocabularies and word-solving strategies.

Teaching for depth and breadth. When designing quality vocabulary instruction, both depth and breadth of the content needs to be considered. Instruction for depth of knowledge focuses on understanding the form, meaning, and use of words (Dickinson et al., 2017). According to Hirsch, "to know a word, we not only need definitional knowledge, but contextual knowledge, which comes from exposure to the word in multiple contexts from multiple perspectives" (Hirsch, 2003, p. 19). Providing formal definitions and teaching words in

taxonomic categories are both proven to effectively teach for depth of understanding (Dickinson, et al., 2017). In contrast, breadth focuses on the number of words learned, without consideration for word meaning. This approach "supports a 'fast-mapped' knowledge of words; a few exposures lead to a relatively shallow understanding of the words, including some phonological and syntactic information, but relatively minimal semantic information" (Dickinson et al., 2017, p. 342). Gaining familiarity with a wide number of words is also helpful and important, because the ability to comprehend new words grows with each encounter of the word, and this also works to build vocabulary ability over time (Hirsch, 2003).

While there are diverse opinions about whether vocabulary and reading instruction should be more focused on depth or breadth, The National Early Literacy Panels considers depth of knowledge is a better determinant of effective reading comprehension than breadth. (Dickinson et al., 2017). However, in primary school having a wide breadth of vocabulary is more predictive of having strong reading comprehension. This is most likely because the content at that level is simpler, and does not require deeper knowledge of many words. At higher grade levels, students with better depth of knowledge have an easier time with reading comprehension. According to Barnes et al. (2017) studies have shown that providing more information about new vocabulary in conversation, such as a definition, can make it more likely that a child will retain and gain an understanding of the vocabulary.

In another longitudinal study, teachers read books with four-year old children from lower socioeconomic households. When the teachers provided a greater depth of understanding of the words, such as word meanings, and also discussed different story elements, the children showed improvement in their vocabulary and reading skills by 4th grade (Barnes et al., 2017). In a study

done by Dickinson et al. (2017), having greater depth of knowledge was a better indicator of success in reading than breadth. However, the students' vocabulary knowledge prior to the study was correlated to their success in the study, thereby showing the presence of the Matthew Effect (Dickinson et al., 2017). Since some students in the study began with richer, wider vocabulary, they already had more resources to draw from to continue to increase their learning. One possible way to try to mitigate this outcome might include teaching less words at one time, and then teaching in greater depth (Dickinson et al., 2017). However, this might then put the more advanced students at a disadvantage, since now they are missing out on opportunities to learn.

In a study discussed by John and Vance (2014), vocabulary instruction was provided to small groups of six-year-olds over three to four weeks. The vocabulary taught directly was called the 'target vocabulary', and then the children were tested at the end of the study on the control words and the targeted vocabulary. The students were able to gain a greater depth of understanding of the targeted words than control words, thereby showing that providing direct instruction with greater depth is most effective.

It has been shown that children are able to glean some information about a new word even after a single introduction, especially when the word is used in a meaningful context (Dickinson et al., 2017). Of course, students gain much greater mastery of the meaning of a word through repeated use. According to McLeod and McDade (2011) hearing a word heard nine times as opposed to three times was more effective for learning the word. Similarly, McKeown et. al. (as cited in Hirsch, 2003) discovered that reading comprehension improved with twelve exposures to a new vocabulary word, but only four exposures did not impact reading comprehension. "The high performing 12th grader who knows maybe 80,000 words has not

learned fifteen words a day, but learned by accruing tiny bits of word knowledge for each of the thousands of words encountered each day" (Hirsch, 2003, p. 16). The type of word also affects how often the word should be repeated for proper retention and understanding. For example, nouns seem to be easier to learn than verbs. Introduction to many new words is of particular importance to children who have less developed vocabulary (John & Vance, 2014).

The Lexical Quality Hypothesis (LQH) is a theory of how vocabulary helps reading comprehension and helps to create a more complex understanding of the content. "The LQH sees the ability to quickly retrieve and use a word in the proper context, so facilitating comprehension as an outcome of high-quality word knowledge" (Dickinson et al., 2017, p. 342). In other words, for vocabulary instruction to best benefit reading comprehension reading ability, it is important to strike a balance between teaching for depth of understanding and obtaining a larger vocabulary.

Whole class vs. small group instruction. Research shows that collaborative learning tends to be up to four times as effective as whole class instruction (Connor et al., 2011). In studies conducted by Connor et al. (2014), student gains were twice as great when they were allowed to work in small groups. Collaborative learning allows students to learn from peers and the techniques they use. Learners serve as models of learning for each other, and can help each other to problem solve and ask and answer questions as they learn (Teng & Reynolds, 2019). Working collaboratively can also be more motivating for students. Possible issues to group work are that students may lack the ability to take personal responsibility or the interpersonal skills helpful to effective collaboration within a small group (Teng & Reynolds, 2019). Perhaps this is why group work has not been found to be completely effective when used exclusively, without

any whole class or more teacher-directed instruction. Jones et al. (2016) indicate that a combination of time spent in whole class instruction and some time working within small groups is most effective. During whole class instruction, time can be spent modeling strategies, and working on vocabulary strategies with tier 1 words, building student's knowledge of words gradually, from basic word solving skills to more advanced skills. The systematic quality of this framework is a characteristic of quality differentiation (Jones et al., 2016).

Task based vs. traditional instruction. Many ineffective classrooms involve too much direct instruction from the teacher, and the students remain passive participants in the learning process. According to Page and Mede (2017), traditional instruction (TI) tends to be fairly repetitive, and involves a lot of rote memorization. A study was carried out to compare the performance of two groups of students. The first group was given traditional instruction, and the second group received task-based instruction (TBI), which is more engaging and helps students make connections to real-life learning and situations. "In TBI, the tasks are used to achieve goals like fostering real-life communication and meaningful language use" (Page & Mede, 2017, p. 372).

Furthermore, unlike in TI, with task-based instruction students initiate and actively engage in most communication, and while the teacher offers feedback at each stage as needed, the students remain in charge of their own learning. The TBI model also offers students opportunities to observe and learn from how their classmates express ideas. Similar to involvement in small group work, students showed more interest and motivation in TBI due to the social and interactive nature of the environment (Page & Mede, 2017). According to Ames (1992), students show more motivation and are more engaged when learning is meaningful and

relevant to their lives. The TBI model helps students to gain confidence in their language abilities. Furthermore, in a similar study done by Kasap (2005), the oral and speaking skills of students involved in the TBI group improved significantly in comparison to the TI group. Having ample opportunities for speaking and sharing ideas most likely gave the students more opportunities for speaking that a regular TI classroom would have offered. Another study by Muhaimeed (2013), also indicated that students involved in the TBI had more significant gains in their reading comprehension compared to the TI group. While some other studies indicated mixed or inconclusive results on the positive effects of TBI over TI, just like with any other aspect of vocabulary instruction, it remains important to strike a balance. There should be some time for project-based learning, but also for whole class instruction.

Instructional content. Besides making considerations for the type of instruction, the content needs to be considered. Fluency is the ability to read clearly, with appropriate speed and expression. While not exactly related to vocabulary instruction, in order for students to develop strong reading comprehension skills, they also need to obtain reading fluency. Fluency is important to comprehension partially because decoded material will not be comprehended if it is forgotten before being decoded (Hirsch, 2003). Fluency helps to make it possible for the reader to grasp the meaning of the text. In order to help students with reading fluency strategies such as decoding can be used. Studies have shown that if a child is able to sound out a series of nonsense words with accuracy and speed, then they are skilled at decoding (Hirsch, 2003).

Explicit instruction is crucial for students to gain an understanding of strategies and important vocabulary for unlocking content. However, if the students are also lacking in background knowledge, then the strategies being taught are fairly ineffective (Hirsch, 2003).

Especially when teaching in multilingual and multicultural classrooms, teachers need to consider that their students might not have the prior knowledge presumed for full comprehension of some content. Therefore, it is very important for teachers to also focus on teaching students' knowledge of the world. Students who already have low-level vocabulary often come to school lacking domain knowledge, which is needed to help with providing an understanding of word meaning. Possessing content knowledge also helps learners to be able to make better decisions about word meaning for words that have multiple meanings based on an understanding of the context (Hirsch, 2003). One possible way to introduce and teach world knowledge is by relating units by a theme, and in this way students can make connections between the presented concepts in order "to create strong lexical representations" (Dickinson et al., 2017, p. 353). Within the learning environment students should have access to a diverse array of contexts and genres, with a greater emphasis on non-fiction materials. It is especially important to provide enough access to non-fiction material to be able to gain knowledge of the world at large. (Hirsch, 2003). The fiction chosen should also help students to "build a knowledge and understanding of peoples, lands, times, and ideas that are important but (possibly) totally unknown to children" (Hirsch, 2003, p. 21).

Metacognitive and self-regulated learning (SRL). Recent research and studies indicate teaching metacognition can aid with vocabulary, reading, and writing for EL students (Teng & Reynolds, 2019). Metacognition is "an awareness of cognitive processes, related-tasks and strategies, an ability to regulate cognitive processes, monitor, and assess one's understanding and performance" (Teng & Reynolds, 2019, p. 4). The two parts to metacognitive learning then are knowledge and regulation of metacognition. Though the research provided by Teng and

Reynolds (2019) indicated that metacognition supported EL learners, it is presumed that this knowledge would be beneficial to any and all learners.

Other considerations. To provide successful learning opportunities and outcomes, the environment, approaches for delivering information, student motivation, and multiple intelligences should also be considered. If students do not feel safe and respected, then meaningful engagement in learning will not be as likely. Additionally, some students may be more likely to learn content when it is presented in different ways, for example through auditory, oral, or visual learning. According to Ranalli (2013), studies have shown that generally when information is presented through multimedia, it is more likely to be remembered, since it includes multiple ways of representing and delivering information. Hence teachers should ensure that content is always delivered in different ways, to account for multiple intelligences and learning preferences.

Differentiated Instruction

Why is it important? Most current literature and research agree that differentiation is crucial for delivering effective instruction. Differentiation refers to changing how the curriculum is taught, teaching methods, processes for learning, or the environment to help meet all learners' needs (Watts-Taffe et al., 2012). Creating differentiated curriculum is important since some teaching strategies and curriculums are more effective and appropriate for some students, while other strategies are less supportive or effective (Watts-Taffe et al., 2012). Even though current vocabulary instruction may try to include lessons and content for all learners, material from textbooks or a set curriculum is not extensive enough without differentiation. Considering all of

the components that come together for creating instruction tailored to each individual student, it is logical that one instructional method cannot be functional for all learners (van Geel et al., 2019). According to Tomlinson and Imbeau (2010), the curriculum-related components that can and should be differentiated are content, process, outcome, and affect. While sources agree on the necessity of differentiated curriculum, "it remains unclear what 'high-quality' adaptations are, how this is enacted in the classrooms, and what is required from teachers" (van Geel et al., 2019, p. 52). This tells us there is a need for more research to be done regarding high quality, effective differentiated instruction.

According to Jones et al. (2016), too many differentiated programs lack efficiency and fail to help students to make timely advancements. This might be partially due to the fact that many schools and learning programs group struggling learners together for interventional learning, despite an understanding that learners struggle for numerous reasons and so have different needs (Jones et al., 2016). Connor et al. (2014), stated that students in classrooms deemed high quality in more artificial ways (well-organized, having an agreeable environment) received comparable amounts of effective meaning-focused instruction to students in classrooms deemed as low-quality. Effective differentiated instruction cannot be derived from ready-made lesson plans (Valiandes et al., 2018) or basal readers or any single specific technique (Watts-Taffe et al., 2012). Effective differentiation cannot include limited assessment leading to static differentiated groups of students. The factor that is truly essential to successful differentiation is the ability of the teacher to create and deliver fitting differentiated instruction.

To apply strategies for differentiation successfully, the teacher's ability to make decisions about the techniques, materials, and environment plays a highly vital role. (Watts-Taffe et al.,

2012). van Geel et al. (2019) also states how the teacher's knowledge and choices concerning what and how to differentiate the curriculum are fundamental to success. According to Watts-Taffe et al. (2012), effective differentiation "is found in the decisions the teacher makes based on their understanding of the reading process, consideration of an array of effective instructional practices supported by research, and an ability to select models, materials, and methods to suit particular students as they engage in literacy acts" (p. 306). In other words, teachers need to be capable of adapting the curriculum and the strategies based on their students' progress and abilities. Furthermore, the teacher should have knowledge of the students' academic needs and abilities, as well as their interests and motivations (van Geel et al., 2019). Since the students' skills and abilities are always changing and growing, it is important that the teacher monitor this development through continuous feedback and assessment in order to adjust the student's instruction and grouping as needed (Watts-Taffe et al., 2019). The teacher should have considerable content knowledge to be able to establish suitable goals, make text connections, and to adjust the curriculum to be within the students' zone of proximal development (ZPD) (van Geel et al., 2019).

Differentiation should be applied to all aspects of the curriculum, and also at all stages of planning, executing, and assessing lessons (van Geel et al., 2019). When developing curriculum, the teacher needs to make adjustments based on the outcome of prior lessons. The teacher chooses what objectives to focus on for each student for the lesson, and then evaluates the students' learning to both check for understanding and for mastery of the content (van Geel et al., 2019). The teacher should group students based on their reading level and targeted learning goals. The groups should be highly flexible and allow for reorganizing as needed (Valiandes et

al., 2018). According to Jones et al. (2016), effective differentiation entails "brief, systematic interventions targeting the students' most pressing need" (p. 307). When it comes to the particulars of differentiated reading instruction within the framework described, consideration needs to be made for some more complex factors including lesson content, diversity of the student population, school organization and environment, and data concerning student ability and development (van Geel et al., 2019).

Curriculum adjustments. According to research done by van Geel et al. (2019), around half of the studies researched focused on the differentiation of the curriculum. For the most part, students in a differentiated class will all continue to learn the same content, but they may learn at different rates or within different time frames, complete different assignments or tasks, receive scaffolded questioning or writing support, or focus on different strategies. The teacher might choose to instruct the whole class, small groups, or individual students. All decisions should be deliberately chosen based on standard-based research for their effectiveness and appropriateness for the students (van Geel et al., 2019).

Literacy instruction should include time spent reading in different groupings working on varied texts and genres, reading skills and strategies, and explicit vocabulary instruction. Additionally, teacher read-alouds can be highly beneficial to improving vocabulary and comprehension. For read-aloud, it is recommended that the texts include a wide variety of contexts and genres, and, according to Cunningham (2005) should be about two or three grade levels above the students' independent reading level. Books used for independent reading should be books the students can read with high accuracy and understanding. This way learners can focus on building their comprehension skills and strategies and on making text connections to

their lives (Watts-Taffe et al., 2012). Shared reading consists of the teacher and students reading together. Generally the teacher reads with the students (choral reading) or the teacher reads and the students follow (echo reading). These techniques can be helpful to students who need to focus on improving their reading rate, especially when accompanied by the teacher modeling using the strategies (Jones et al., 2016). For shared reading, high quality texts that are both fiction and non-fiction should be included. Non-fiction texts are most helpful for building content knowledge.

Literacy instruction should include both general academic vocabulary as well as discipline specific vocabulary, or "specialized, advanced, discipline-specific thinking and language practices" (Jang et al., 2018, p. 45). Coxhead (2000) developed a word list consisting of 570 word-families, which accounts for 10% of words in academics. While instructing learners on all of these words would be impossible, this could be a good source to use to identify vocabulary for targeted instruction. When considering vocabulary for targeted instruction, another consideration is the 3-tier system. Tier one words are general knowledge words, tier two words might appear in multiple contexts throughout all academic areas, and tier three words are more highly specialized and content-specific (John & Vance, 2014). Montgomery (as cited in German et al., 2012, p. 147) suggests that learners should be taught some words from all three tiers. Though it is the teacher's prerogative to determine how many vocabulary words to focus on for explicit instruction, it is worth noting that Dickinson et al. (2017) found improved learning of explicitly taught words (over control words) when instructed on sixteen words for each text. Focusing on more words means risking a sacrifice of gaining a deep understanding of words

(Padak, 2006), so it is important to make sure that vocabulary words are thoughtfully limited and chosen in advance of instruction.

Once the text and vocabulary for instruction have been chosen, the teacher must decide how to present and teach the words. Archer (as cited in German et al., 2012) states that using practices such as having the students create definitions or illustrating words can be helpful to retaining new vocabulary. According to Beck et al. (2002), teaching the definitions of words, context, and having students say the target words all helped with learning new vocabulary. The skills targeted will depend on the areas of need of the learners. Decoding is one of the first skills readers need to master, since being able to accurately identify words makes comprehension possible (Jones et al., 2016). A decoding inventory can be used to determine which decoding skills need to be targeted. For most learners struggling with decoding, they will need to work on blending (putting sounds together to form a word) or morphology. Teachers can model how to blend words to gain improved proficiency. For morphology, the student is taught complex-word families, which are derivatives of root words. Hiebert (2015) proposes that there 2,500 complex morphological word families to which learners should be familiarized. If the learner has mastered decoding and fluency, but still struggles with comprehension, then scaffolding techniques can be used. Scaffolded instruction can help provide knowledge and background useful for comprehending the context and main ideas important to the text (Ilter, 2019).

While it is important to teach instructional strategies, this should not be the main focus of literacy instruction. The students should be given instruction on strategies more as a reminder. That being said, explicit instruction of reading strategies is crucial to developing success as a reader. One of the skills many learners struggle with is inferencing. Part of the reason this is

challenging is that it can be difficult to make connections within and outside of the text if the learner lacks the assumed background knowledge for that text (Jones et al., 2016). A strategy that could be beneficial to building inferencing skills could be to provide sentence frames, which is a structure that provides a partially completed sentence for students to complete. For building comprehension, students need to spend a lot of time reading and re-reading a text, while discussing and considering questions about the text. At first, the teacher might model think-alouds while reading, to show learners what it looks like to question what is being read. Then, the teacher might ask open-ended, progressively more challenging questions to students about what is being read. Finally, the students are expected to learn how to ask themselves questions of what they are reading to gain clarity and to build independence (Jones et al., 2016).

Student diversity. Tatum (2011) described nine categories of diversity that are pertinent to teachers. These categories are gender, ethnicity, language, race, socioeconomic status, and exceptionalities (physical, mental, emotional, and intellectual). According to Tatum, "there are many interactions that can exist within and across each of the categories, and each is affected by dynamics of power and privilege" (as cited in Watts-Taffe, 2012, p. 305). Additionally, Page and Mede (2017) found that learners who were more advanced use different strategies when reading than lower level learners. There was also a noticeable difference in how older learners employ strategies than younger students. Additionally, studies have found that girls are typically able to use more varied strategies for reading than boys (Page & Mede, 2018). The curriculum adjustments recommended when keeping student diversity in mind are much the same as the recommendations for differentiated curriculum. However just as there is no single method or instruction that is effective for differentiating curriculum, there is not a single effective method

for addressing the diverse and varied needs and abilities of all students (Watts-Taffe et al., 2012). The teacher is the one who needs to decide how best to deliver the content based on their students' needs.

Much research has indicated the importance of helping learners make connections to the text, which can be particularly problematic for English Language Learners, but can also be a skill that proves the most useful once mastered. One reason that text connections can be particularly difficult for immigrant and ELL students is that "the type of knowledge valued at school is not always consistent with the wealth of knowledge students bring" (Jones et al., 2016, p. 313). Being able to form personal connections to the text, and connect the text to the world at large, is important for facilitating learning new vocabulary as well (Barnes et al., 2017). Santisteban (2014) also indicates the importance of helping refugee and displaced students to make connections to the text, and providing a curriculum that is accessible and inclusive of their prior knowledge (Santisteban, 2014). To be able to understand and make sense of vocabulary, it is helpful that students can connect the knowledge of the new words to prior knowledge (Gonzalez et al., 2010). To help students build the necessary content knowledge, teachers should ensure that learners are given ample reading time and instruction in a wide range of texts and genres, with emphasis placed on informational non-fiction texts. It could also be helpful for the teacher to provide background information on a subject before reading the text, taking care not to detract too much time for reading comprehension (Jones et al., 2016).

Given the increasing number of EL students in schools nation-wide, it is particularly important to consider the needs of EL students when planning vocabulary instruction. Gallagher et al. (2019) state that today there are over 17 million children of immigrants enrolled in schools

across the U.S. Additionally, it is known that there continues to be a negligible difference in the performance of EL students and students whose native language is English in U.S. schools (Gallagher et al., 2019). Children with higher vocabulary skills and abilities can likely make use of more advanced and different approaches to learning new vocabulary than learners with smaller vocabularies. (Barnes et al., 2017). Additionally, immigrant students who are refugees or are displaced tend to face additional discrimination and financial obstacles while also trying to master the new language (Santisteban, 2014). "Governments in charge of refugees are unprepared for fulfilling refugees' educational, psychological, and economic needs" (Santisteban, 2014, p. 35). Research has shown that differentiated instruction is highly beneficial for EL students, by helping with learning language along with more general academic success (Valiandes et al., 2018). When lower level students were provided literature and targeted instruction that was reflective of their ability and knowledge, Jang et al. (2018) found that students were more likely to gain proficiency in reading and comprehension skills.

Valiandes et al. (2018) take differentiated instruction a step further for multicultural learning, by suggesting an intercultural education. According to Valiandes, this approach is created both "to sustain collective identities and to facilitate individual academic success" (Valiandes et al., 2018, p. 384). Part of the reason why this might be considered a more successful model is based on the knowledge that the context of curriculum is important to learning, and if a students' cultural and language background is not considered, they might have lower chances of success. (Itler, 2019). According to Gregory and Burkman (2012), respecting the cultural and language diversity should also be cultivated through the teacher's interactions with learners, along with a welcoming and supportive learning environment.

Effective Assessment

Learner assessment. Assessments occur with increasing regularity in most schools today. One might conclude this indicates an increase in informed instruction based on all of the data and results of these assessments. Unfortunately, this does not seem to be the case. Bourke and Mentis (2014) state that most assessments given in schools are poor indicators of student achievement, ability, and learning needs. Bol and Strange (as cited in Abosalem, 2016, p. 3) specify that there is a "misalignment between instructional goals and the types of tests used to measure skills and learning" (p. 3). Thus, it is necessary for further research to be done in order to develop and implement assessments that are accurate and effective at measuring diverse student needs within a differentiated learning environment (Bourke & Mentis, 2014). Learner assessments serve two main purposes: to "describe, analyze, and facilitate learning", and "to measure the outcomes of learning" (Bourke & Mentis, 2014, p. 385).

Although this may be true, determining frequency and types of assessments can be difficult, given some discrepancies in guidance from literature and the vast selection of assessment options available. According to Bourke and Mentis (2014), one study found teachers within a mainstream classroom used upwards of twenty-four assessment methods with their students with high needs. Teachers frequently create their own assessments to determine student ability and learning. Unfortunately, studies indicate that most teacher created tests do not emphasize the learning process or give an opportunity to show a deeper level of understanding. (Abosalem, 2016). Most teacher-created tests focus on recall, and "encourage the impression that answers are always right or wrong" (Abosalem, 2016, p. 4). Given the importance of ensuring appropriate measurement of student ability and performance, along with student

understanding and teacher improvement, more clarity is needed on the most effective assessment techniques.

When determining which assessments to use, teachers should consider the objective of the assessment and how the outcome will be used (Dixson & Worrell, 2016). Furthermore, assessment should not be done solely at the end of a unit of study, but a continuing process that is conducted frequently using several methods (Abosalem, 2016). It is just as important for the teacher to have a clear understanding of their students' learning needs, abilities, strengths, and interests to provide adequate assessments (Watts-Taffe et al., 2012) as it is when planning differentiated vocabulary instruction.

Summative vs. formative assessment. Most assessments are either formative or summative in nature, but can also be both. Formative assessments are used throughout a learning unit, can be planned or unplanned, and are used to gather information to help guide and improve learning opportunities (Dixson & Worrell, 2016). Examples of formative examples include exit tickets, analyzing student work, posing questions, observations, or taking a class poll. Summative assessments are typically planned and used at the end of a unit of study to determine how much a student has learned. Examples of summative assessments include an end of unit test or a standardized test. Summative assessments can be useful for evaluating what a student knows at a given point in time. However, the lack of flexibility of many summative assessments means that the results will lack accuracy for any students who cannot perform well on that exam (Dixson & Worrell, 2016). Most research suggests that the majority of assessments should be formative in nature. According to Cauley and McMillan (2010), studies indicate that there is a correlation between using formative assessments and student motivation. "Effective

teachers use formative assessment during instruction to identify specific student misunderstandings, provide feedback to students to help them correct errors, and identify and implement instructional correctness" (Cauley & McMillan, 2010, p. 1). Formative assessment shows what a student has learned and can comprehend, should offer clear expectations from the teacher and constructive feedback for learners, and should help to lead to an improved ability to self-guide and assess learning for the future (Cauley & McMillan, 2010). Other studies and bodies of research refer to this as authentic assessment. Authentic assessment uses academic content in a way that draws connections to real-world circumstances and problems. (Abosalem, 2016). This type of assessment helps ensure that learners are given opportunities to show their abilities and how they can apply their knowledge in meaningful ways, and are not misjudged as having low performance or understanding by a less forgiving paper-based test (Abosalem, 2016). Hence, teachers should promote mostly formative assessments, though it is still important to involve both types of assessment.

Assessment function. According to Bourke & Mentis (2014) assessments are not fundamentally summative or formative in nature. The purpose of the assessment determines its form. Bourke and Mentis (2014) determined there are four main functions for an assessment-normative, criterion-referenced, ipsative, and self-assessments. These functions should be considered when choosing the most suitable one. Normative tests compare the results of an individual learner to the results of other learners of a similar age. Normative assessments can be problematic because they tend to focus on what the student does not know, rather than on their achievements. However, normative assessments can also be useful for helping the teacher to plan learning objectives. Criterion-referenced assessments are usually connected to the

curriculum being directly taught to the learners. These assessments can help the teacher to be more targeted in choosing areas to focus on in learning, and to help them to see the learners' understanding at the start of a unit. Assessments that are ipsative involve the teacher and learner analyzing the results of many different types of assessments to track variations in learning or results over time. Self-assessments allow the learner to take part in recognizing their learning needs, strengths, motivations, and interests (Bourke & Mentis, 2014). Using assessments for many different functions and from different approaches can "show how that learner is valued and contributes to a learner's sense of being 'important' and included" (Bourke & Mentis, 2014, p. 392-393).

Learner goal alignment. Despite the fixation on assessment outcomes, in most situations the signs of learning cannot be easily quantified. Instead learning is observed "through participation in new and challenging aspects of the curriculum" (Bourke & Mentis, 2014, p. 386). The learner's attitude towards learning affects the ability to make progress in their learning. According to Stiggins (2005) learners have to be motivated and decide that learning is worthwhile, otherwise they may not have confidence in their abilities and give up. According to Cauley and McMillan (2012), goals for achievement are either performance or mastery oriented. This kind of objective may unwittingly demotivate students by signifying low expectations and a lack of confidence in the learner's ability to achieve (Cauley & McMillan, 2012). In contrast, objectives focusing on mastery encourage development, grasping new concepts, and taking risks in learning. Making mistakes is encouraged and considered a necessary part of learning. Mastery objectives are more motivating and give learners a sense of control over their learning (Cauley & McMillan, 2012). Assessments that encourage mastery over performance are linked

to progress towards individual goals. They also take into account active engagement in learning. Teaching learners to pursue mastery over performance helps them use higher level cognitive strategies, be more persistent when faced with challenges, and also more intrinsically motivated. (Cauley & McMillan, 2012). In contrast, "students pursuing performance goals tend to procrastinate, use superficial strategies, and sometimes display cheating behaviors" (Cauley & McMillan, 2012, p. 3).

Providing constructive feedback is an important component to guiding students towards their goals and helping to encourage mastery over performance. Studies have shown that "task-specific comments influence students' interest and commitment more positively than grades or praise" (Cauley & McMillan, 2012, p. 4). This feedback should occur regularly throughout the learning process, since the point is to help students focus and improve their efforts. If the only feedback students receive is in the form of a final score or comment at the end of a unit, they cannot identify how to improve for the next time, and they then might have lower expectations for their abilities (Cauley & McMillan, 2012).

Assessing assessment methods. Ensuring valid methods of assessment are being used is crucial to a quality learning program. The means for differentiation, strategies, and also the appropriateness of the content and curriculum should be measured for effectiveness. According to Jones et al. (2016), there is currently limited research done on assessment of differentiation techniques. While it is therefore important that more research be done on producing tools that are effective and dependable to measure differentiation, this is not an easy undertaking (van Geel et al., 2019). "The assessment of professional competencies is very complex, as a competency comprises the complex integration of knowledge, skills, and attitudes" (Baartman, as cited in van

Geel et al., 2019, p. 63). According to van Geel et al. (2019), the available tools for measuring the effectiveness of differentiation instruction include self-reports, classroom observations, and questionnaires. In order to ensure that differentiated instruction is best suited for each individual learner, it is crucial that more research is done on how to match the adaptation to the student.

Summary

When researching best practices for vocabulary instruction, differentiation, and assessment, there are certain commonly accepted conventions. Instruction should be differentiated at each stage, including during planning and assessment. The teacher needs to be knowledgeable about their students and the content to plan instruction that is effective and appropriate with whole-class, and, preferably, small group instruction. This gives learners a chance to collaborate and also get more targeted instruction on their learning needs. These small groups should be impermanent, and be reorganized as needed so that students are continuing to receive focused instruction as more growth and learning occurs. It is important to include both explicit and implicit vocabulary instruction. Through explicit teaching, teachers can focus on directly showing students how to use reading strategies, and also focus on some important academic vocabulary. While explicitly teaching strategies is important, it should not be the main focus. More time needs to be spent doing wide reading of different texts and genres. This also helps students build their vocabulary through implicit means, while exposing them to a lot of content knowledge. Teachers should also focus on teaching students inferencing skills and also help to build students' background knowledge. For many learners who lack background knowledge, it can make learning new vocabulary difficult since they cannot connect this new information as readily. Teaching students how to use metacognitive learning strategies can help

learners to become more independent and feel they have more control of their learning. Helping students to be motivated by mastery over performance is also important in giving learners a feeling of control of their learning. Providing authentic assessments gives a more complete picture of a learner's progress than only using summative assessments at the end of learning units or standardized tests. They can also help learners to be more motivated.

There is a lot of data here which will be considered when planning the research project. In the next chapter, an outline of a vocabulary program will be presented which incorporates aspects of vocabulary learning discussed in this chapter, such as small group work, explicit whole-class instruction. Varied literacy activities, including read-aloud, independent reading, choral or echo reading, and literature circles will be discussed. In chapter three, the action research project will be presented, including an outline of the participants, setting, and methods used to collect data. A time frame for the research will also be included.

CHAPTER THREE

Project Description

Overview

The purpose of this project was to create a collection of effective research-based vocabulary materials that are widely applicable and easy to differentiate for learners. My guiding research question was, *How can I develop effective differentiated vocabulary instruction materials for upper elementary classrooms?* This chapter will first outline the rationale for selecting the chosen content and activities as formative assessments. Next, a detailed explanation of the project components including recommended instructional routines and teaching strategies will be provided. Finally, a brief description of the setting, target audience, and timeline will be given, followed by a summary of the key points of this chapter.

Project Rationale

This research question felt significant due to my experience teaching in new school settings every year or two, and often finding the provided vocabulary materials to be inadequate. Often there would be vocabulary lists intended for target instruction included within the reading textbooks, but the lists would focus on vocabulary specific to each text, not tier two words or other vocabulary that is more broadly useful. If the reading textbook was not being used, the word lists felt particularly irrelevant and not beneficial to focus on during direct instruction. Frequently I was finding that time was needed in order to compile adequate and effective vocabulary materials and strategies with each particular grade and group of students. Eventually some activities and strategies came together which seemed effective and easy to differentiate for

most learners in upper elementary classrooms, since that is where the majority of my teaching experience had been thus far. I presumed that other educators would benefit from the accumulated resources and strategies. Therefore the objective of this project was to assemble a streamlined outline of suggested differentiated explicit and implicit vocabulary activities, interventions, and assessments which could theoretically be readily adapted for any unit of study.

Furthermore, many of the activities could be used as formative assessments. I chose to focus on formative assessments because they are not only useful for assessing learning, but also providing ongoing feedback and continuously checking for understanding while informing future instruction (Cauley & McMillan, 2010). Additionally, "an emphasis on task goals improves students' intrinsic motivation and, when combined with other formative assessment practices, also further supports the adoption of mastery goals" (Cauley & McMillan, p. 3., 2010).

Project Description

This project consisted of a collection of vocabulary activities and games, an outline for a student vocabulary notebook, direct instruction templates, several optional supplemental materials, and recommendations for implementation. The curriculum was designed to provide choices of differentiated activities and assessments which support learning for multiple intelligences, EL learners, and gifted learners. The examples outlined were specifically created for grade five as a component of a larger 6-week novel study of *Wonder* (2012) by RJ Palacio. The teacher provides a vocabulary pre-assessment each Monday, and a post-assessment each Friday on the target vocabulary. Students work with their vocabulary notebooks each day for at least 15 minutes, both on the target vocabulary and words from their personal dictionaries. The vocabulary activities and games should be carried out at least two or three days per week for

20-30 minutes at a time, but could be carried out every day if desired as a literacy station. The Vocabulary Journal is meant to be used as a tool for students consistently throughout the school year.

For maximum effectiveness, ideally the teacher reads the book *Wonder* aloud, while each student reads along with their own copy of the book. The teacher provides audio of the book on a Google Drive, etc., so that students might reread through passages of the text later while listening to the audio. Alternatively, the teacher might instead record the selected text, and make the recording available for students.

While the examples given were based off of a literacy unit to use with *Wonder* (2012) , the materials can easily be adapted to be used regularly within any literacy unit and with any text throughout the school year. The fifteen vocabulary activities could readily accommodate all upper elementary students, and were intended to be completed independently or in small groups. The four games are played in small groups or with the whole class, and could also be used as formative assessments or as review. These activities and games were designed to support different learning styles, including verbal, kinesthetic, auditory/musical, interpersonal, intrapersonal, and visual. The engaging nature of the activities promotes student motivation. Each activity provides a suggestion for how many vocabulary words to focus on based on whether students are working independently or in small groups. Additionally, there are three choice boards with outlines of activities intended for three different ability levels.

The next piece is the student vocabulary notebook. The notebook was intended to be used and incorporated into vocabulary instruction throughout the school year. The notebook has sections for a student dictionary, target vocabulary, roots and affixes, figurative language, and

word study. As students read through a novel, they will add new vocabulary to the student dictionary section, separated into pages for words with one page for each letter A-Z. Padak (2006) and Crosson et al. (2019) discuss the value of including the study of word parts in vocabulary instruction, especially for EL learners (Crosson et al., 2019). Additionally, the teacher presents some target vocabulary words each week, and those words are added to the vocabulary notebooks. While the exact number varies, one recommendation by Beck et. al (2002) would be to directly teach about 400 vocabulary words per school year, which comes out to roughly 12-16 words per week for direct instruction. Students would also add the page number and source of each vocabulary word so that if they need to go back to reference the context of the word they can. When it is time to work on vocabulary, students choose target vocabulary and some vocabulary words from their personal student dictionaries that they have not yet mastered to study. The number of words they choose will depend on their vocabulary ability as well as the chosen activity. The teacher will make a determination based off of observations and assessments about which level the students will work on, though the levels can change as the students advance. As the students master words in their student dictionaries, they highlight the words. Fellow students can periodically quiz each other on the words they have mastered, to ensure they retain the meaning of the words. The idea is that the teacher asks students to either find words with roots or affixes, or try to find words with specific roots and affixes, and these will be added to that section of the notebook. In a similar fashion, the teacher asks students to find examples of a certain kind of figurative language, or any figurative language examples while reading, for students to study in more depth later.

Following this is a Google Slides outlining components of effective direct instruction of target vocabulary. Additionally, there is a sample handout included of target vocabulary words, a summative target word pre-assessment and post-assessment, and a graphic organizer to aid with determining which vocabulary words to cover during direct instruction. Additionally, there are guidelines for determining vocabulary ability, and how to differentiate the instruction and implement the included materials effectively. Recommendations are provided for effectively implementing and integrating these materials within a literacy unit.

Setting and Audience

The setting for this project was the preK-8 public school where I currently work in Minneapolis. The school currently serves 180 students, of which approximately 93% are Black or African American, and 7% are Hispanic or Latino. One hundred percent of the students are eligible for free or reduced lunch. Additionally, all students come from homes where English is not the first spoken language, and at least one third of the students are eligible for ELL services. The preK and kindergarten classrooms are separate, but starting in first grade, teachers co-teach combined grade levels (grades 1-2, 3-4, 5-6, and 7-8 are combined). Each teacher is responsible for teaching math or English and social studies for the students in their assigned mixed-level class.

These activities were specifically designed with grade five in mind while working on a 6-8 week literacy unit about *Wonder* (2012) by RJ Palacio. As a result, I especially considered the needs of ELL students and students with limited vocabulary knowledge. However, as mentioned previously, the materials were still designed to be geared for all upper elementary students, and adaptable to any literacy unit.

Timeline

I started developing these materials when I was teaching abroad in Asia, and so some pieces of the project have been created over the past few years. When I had to redesign my thesis and change it to a project in Fall of 2020, that is when I chose to make my project about vocabulary activities and materials for teachers to use with upper elementary students. Then at the start of this year, I started specifically formatting these activities and outlining the activities described for the capstone project.

Summary

In this chapter I presented an outline of the project I designed based on the research question: *How can I develop effective differentiated vocabulary instruction materials for upper elementary classrooms?* First, a description of the project and project rationale were explained in detail, including the components of the project and recommendations for implementation. Then, I described the audience and setting that the materials were initially modeled for, and a timeline of how frequently the materials were meant to be used and for what kind of length literacy unit.

Chapter four first explores the process of creating this project, and then will reflect on what was learned when researching and writing the literature review. Next, there will be discussion of implications and limitations of this research, and finally possibilities for future research.

CHAPTER FOUR

Conclusion

Introduction

This project was developed due to my interest in developing, and sharing, vocabulary resources that were research-based and practical for vocabulary instruction for all upper elementary grades and a variety of texts throughout the school year. It is common for teachers to feel that they do not have the desired time to research and gather resources to help inform and improve every aspect of instruction. In my experience, vocabulary materials in particular are inadequate for all learners. Provided textbooks often include word lists to go along with anchor texts, but the word lists often include words that are context specific to that text. Furthermore, there is a lack of well-researched straight forward guidance on including affixes and roots in vocabulary instruction, but through my experience and research, it seems prudent that it be included. Additionally, not all teachers include enough direct instruction of the right vocabulary words or vocabulary strategies for solving unfamiliar words. That is why I developed the guiding research question: *How can I develop effective differentiated vocabulary instruction materials for upper elementary classrooms?*

Next I will outline what I have learned through development of this project, reflect on key understandings from the literature review, describe implications and limitations of this research project, opportunities for further research, and finally the benefits of this project on the field of education.

Major Learnings

This process has not been a short one for me, but I feel that I learned a great deal during this time. I started my masters degree in 2017, and was supposed to finish this capstone over one year ago. Originally, I was doing a capstone thesis, not a project. When I was going to do my research, I was teaching literacy in an upper elementary classroom. However, when covid happened, I changed schools and continents, and found myself distance teaching middle school math to middle schoolers. After trying and failing to find a classroom to work with to complete the research for my thesis, I changed to a thesis project about six months ago. So, I guess one thing I know and that was reiterated through this process was the importance of perseverance and also being adaptable. This thesis looks a lot different than it did when I started, but I am content with and proud of the finished product.

While I have quite a bit of experience now working as a teacher, it has been quite awhile since I have been a student. Being in the student role again gave me a newfound appreciation for the importance of: receiving ongoing quality feedback, having time for reflection, opportunities to apply what I am learning, and for discussion and collaboration. I plan to be more mindful of including these types of practices into my teaching.

The next thing I learned is the importance of taking the time to investigate the ways in which I might improve my teaching techniques and expand on my abilities. This project was a fortunate opportunity to take the time to seek out new ideas, and become more comfortable with conducting professional research. While I had already used some of these activities and strategies in my own classes, I was able to add more strategies that I know are effective and that will be beneficial to all of my students. Further developing my effectiveness as an educator is

something that is important to me, and I have realized that I want to be more intentional about carving out the time to do action research and collaborate with others.

I knew going into this project that it might be a challenge for me to stay motivated during distance learning, and I was right. While I was usually very interested in the topics being discussed during this program and this research process, it is clear that I need to work on finding ways of being more disciplined in order to carry out my goals effectively. There will not always be a class or instructor to keep me centered. While I am good about making time to create lessons for my students, I have to also ensure I am using that same discipline to continue to work on professional development.

Finally, I learned that I am not as fond of independent work as I previously thought. I liked collaborating with and learning from the professors and other students during this process. I learned that is more than acceptable to ask for and receive help, and how big of a difference it can make.

Revisiting the Literature Review

There were three resources that were particularly helpful to my research. The first was Dickinson et al. (2017), which gave me a better understanding of the importance for both direct and implicit instruction, as well as teaching for depth and breadth of understanding. All students can benefit from targeted vocabulary instruction, but it is important to be selective about which words to focus on. Generally, targeted instruction should focus on tier two words, and the targeted instruction should occur as a pre-reading activity (Dickinson et al., 2019). Teachers also need to make time to explicitly teach vocabulary strategies, starting with the most basic and progressively focusing on more complex strategies. Approximately six lessons is enough for

most learners, but ELL students in particular might benefit from additional explicit instruction of strategies. Implicit instruction is where students will learn most new vocabulary words. For implicit instruction to be as effective as possible, a wide range of texts and genres should be made available, and teacher-guided activities and structured opportunities to work with the vocabulary should be provided (Dickinson et al., 2019).

The second source I used often, Hirsch (2003) also emphasized the importance of teaching for depth and breadth, but also the importance of building on students' prior knowledge. The article talked about how the discrepancies in domain knowledge are a major factor that can hinder vocabulary acquisition and reading comprehension, since background knowledge is the foundation for students to map their learning (Hirsch 2003). Another learning from this article was the understanding that vocabulary is learned incrementally through repeated exposure. Students are not going to learn vocabulary simply through a single introduction to the word, but by repeated exposure through engaging activities.

The third source that was significant to my research was Jones (2016). Some of the same ideas shared by Hirsch and Dickins were also outlined in Jones, such as the importance of building background knowledge and providing a balance of direct and indirect instruction. This source was also of particular importance to decisions I made when designing vocabulary materials for my project. Jones discusses how vocabulary instruction should "move away from decontextualized comprehension strategies" (p. 312, 2016), to more active learning opportunities, while using scaffolding to aid with comprehension. Additionally, Jones promotes the use of shared reading to encourage student engagement and motivation, and comprehension.

This is part of why I emphasized that ideally the teacher should read the chosen text aloud to and with the students as part of the vocabulary activities I designed.

While the sources listed above provided much of the information for my research, it was mostly concepts that I was already familiar with. One new idea I learned about was the importance of metacognition on student learning. Students who are "able to regulate their cognitive processes to plan, monitor and assess" (Teng, 2019, p.3) have been shown to have better comprehension. Activities that promote metacognition include self-assessments and peer-assessments, reflection, along with student engagement and interaction. It should be noted that student interaction should be directed by the teacher using guided metacognitive questions to complete authentic assessments and activities (Bourke, 2014), while providing opportunities for reflection and self assessment (Teng, 2019). Additionally, another component important to the learning process is continuous teacher feedback on progress and comprehension (Valiandes, 2018). While I already knew feedback to be important, this research made its importance evident, and I plan to be more intentional about providing continuous feedback to my students in the future.

One final concept that was new to me was discussed in Watts-Taffe (2012). Through this process, my original plan was to provide activities that were at different levels, and already differentiated for us. However, Watts-Taffe argues that differentiated instruction cannot be made in advance, because the adjustments that need to be made are based on continuous monitoring and assessment of progress, and depends also on student interest and motivation. While there are certain strategies teachers can use, you can not plan for differentiation before assessing learning outcomes.

Implications and Limitations

While the process of choosing my guiding question and creating these materials initially stemmed from an interest in materials to use with my own students, I feel that they will be very beneficial to other educators as well, especially those working with upper elementary students in mainstream classrooms. The example provided was in the context of studying the book *Wonder*(2012) with fifth grade students. However, the materials could easily be adjusted for use with other grades and texts, and also used continuously throughout the school year.

One implication of this research is that teachers ensure they are making time for direct instruction and guiding implicit instruction of vocabulary. The activities provided should be engaging, and allow time for students to self-assess and reflect on their learning. These activities should include wide reading, which means exposure to varied texts and genres during independent reading, and for students to have repeated chances to learn about each word. Furthermore, teachers should be intentional about the vocabulary chosen for direct instruction. Additionally, teachers should focus a little less on direct instruction of vocabulary strategies, and more time on providing continuous feedback and building background knowledge.

When considering the limitations of my research, a few things come to mind in regards to integrating these resources into the classroom. Teachers may not have as much flexibility with the curriculum as I have had over the years. Therefore it may be difficult to integrate into an already existing curriculum, especially the time to read aloud a novel to and with students. There might be constraints on time for literacy, which make it difficult to work on vocabulary every day. Also, schools may lack the resources to provide books to read aloud for every student, which is something I had taken for granted at the past two schools I worked at. While many of

the resources I created require few resources, I feel this piece might create the largest possible obstacle.

Future Research

After conducting this research, there were a few concepts that interested me for possible further research. While the research presented here focused on vocabulary instruction for upper elementary students, I am curious about the effective vocabulary instruction for younger students. Several sources I worked with discussed how students should already be reading to learn and not learning to read by the upper grades, and therefore I would also like to know more about effective research-based strategies and conclusions for these learners, so that they might fall as far behind by upper elementary. Another topic of interest would be looking into how to adapt these strategies to be more appropriate for non-fiction texts. Many sources discussed the importance of emphasizing reading of non-fiction texts. In my experience, it can be more difficult to find appropriate sources that students are motivated to read, so I would like to research more ways to incorporate engaging lessons for nonfiction. Finally, through the courses I took for my masters program, I learned more about the importance of developing culturally responsive instruction. I feel that besides doing more research into how to adapt culturally responsive practices in my classroom, just more research in general should be done in this area.

In addition to further research into developing a culturally responsive curriculum, some sources I gathered pointed out the need for further research into assessment methods and also developing students' higher order thinking skills. According to Bourke (2014), "there is a growing need to ensure classroom teachers have frameworks to support their understanding of assessment in order to meet the diverse learning needs of their students within inclusive

classrooms" (p. 385). This sentiment is shared in Abosalem (2016), which argues that learner goals are often misaligned with assessment measures. In order to ensure learner goals are being met, assessment choices and options need to be reevaluated.

Summary

This capstone research and question was created in response to the guiding question: *How can I develop effective differentiated vocabulary instruction materials for upper elementary classrooms?* This question became of interest because while I already felt that I had an idea of important components of vocabulary instruction, I did not feel like a coherent curriculum existed, at least not that I had encountered. Although this was a challenging process for me, overall it was a positive learning experience that taught me about the research process, and reminded me of what is like playing the role of a student. The process gave me the opportunity to reflect on areas of growth in my own teaching practices, and also ideas for further research. I look forward to applying what I have learned to my teaching practices, and also to sharing my project and what I have learned with others.

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