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Poverty In Education: The Impact On Academic Vocabulary And Need For Early Interventions

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POVERTY IN EDUCATION: THE IMPACT ON ACADEMIC VOCABULARY AND

NEED FOR EARLY INTERVENTIONS

by

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To my mom

For your unwavering support through it all. I'll never be able to thank you enough for always believing in me.

To Sam

For your endless love and your ability to make me laugh when I need it most.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

Some of my fondest childhood and adolescent memories are centered around literacy. My rich reading and writing experiences gave me the tools to build the strong literacy skills that helped me excel throughout my education. However, not everyone is this fortunate. When I began my professional career, I quickly understood the tremendous negative impact that lack of literacy skills can have on a student's education. My experiences in the classroom have led me to the following research question, which I will attempt to answer through an extended literature review: How does poverty impact academic vocabulary skills and how can early vocabulary interventions be used effectively in order to strengthen the academic vocabulary skills of students living in poverty?

Early Literacy Experiences

As far back as I can remember, reading has been one of my favorite pastimes. My mom was a teacher, and many of our Friday nights consisted of trips to Barnes and Noble to pick out books for her students. She and I would sit on the floor of the children's section for hours and pour over contenders for her classroom library. I would make my picks and pass them on for her to review, waiting with bated breath as she mulled over my choices, hoping that they might make the cut. They usually did, and many days after school I would wander to the back of her classroom and pick one of them out, flop on a bean bag chair, and get lost in a story while she graded papers and made lesson plans. At home, we read everything together, from Little Golden Books to my very favorite series as a child, Junie B. Jones.

One summer day when I was ten, I spent the majority of the daylight hours at our bright blue Mac typing out my very first book. I cannot remember what the novel was about, only that the main character's name was Ellie. I thought that when my book was published, I would be rich and famous. While that dream never came to fruition, my passion for writing grew even stronger in high school and served as an outlet for many of the words I could not manage to speak. While reading and writing came pretty easily to me, I realized in college that this is not the case for all students. During my sophomore year I changed my major to special education with a focus in learning disabilities, and later graduated from Winona State University with a bachelor's degree in teaching, determined to be an advocate for students who struggled academically.

My Beginnings as an Educator

I began my career in education as a special education teacher at a high school in Minnesota's south metro. The call I got from the district's Supervisor of Special Education offering me the job is one that I will never forget. Almost immediately, I took to Facebook to post a status that I, fresh off of graduation from Winona State University, had landed a position as an actual teacher. I was elated, penning something to the effect of being overjoyed to begin my career and proclaiming my love for teaching and learning. I had an overwhelming sense of confidence that on the first day of school, my students would be enamored by me and would be singing my praises to all of their friends. They would love me, I would love them, and I would change their lives with the ridiculously awesome research-based instructional techniques that I had learned in college.

Five years later, I continue to hold the same teaching position at the same high school. Many of my students have loved me, I have loved them, and I would like to think that I have changed some of their lives through my teaching. What I did not predict five years ago, however, was the prevalence of poverty in my district, and the academic underachievement that resulted from it. I did not know the weight that my students would carry as a result of not having anything to eat on the weekends or needing to sleep on air mattresses because their families could not afford beds. I had no idea that students would fall asleep in my class because they had been up late working the previous night in an effort to help support their family. Five years ago, I simply could not have fathomed that many of my students would struggle so immensely to make educational gains because of the basic resources that they and their families lacked. What has become clear in my short time as an educator is that it can be incredibly difficult for some students to make academic progress due to factors outside of school. While I would quickly become accustomed to all of these unfortunate realities, one seemingly unanswerable question remains: How do I fix this?

I have attended many professional development sessions put on by my school and district on the impacts of poverty and how to best meet the needs of these students. Usually, a member of administration will review data about students in poverty in our district, and small groups of teachers and other school employees will spend the majority of the day brainstorming strategies for working with these students. While these sessions often offer the opportunity to learn from colleagues about how they are successfully working with low-income students, I often feel like we are playing catch up. We have determined that these students are academically behind their peers due to circumstances

outside of their control, and now we must figure out what to do to get them up to speed, all while hoping that they do not fall behind again. Since these same professional developments are no doubt happening at the elementary and middle school levels as well, I often wonder, are we really solving the problem at hand?

In my time as a special education teacher, I have held close to one hundred Individualized Education Program (IEP) plan meetings with my special education students and their parents or guardians. More often than not, a topic of discussion in one of these meetings is the child's need to improve their reading comprehension skills. Consequently, when a student struggles with reading comprehension, academic vocabulary is also difficult. Teacher feedback usually indicates that these students struggle with determining what a question or academic prompt is asking them to do, and that comprehending what they have read is very difficult. My high school students who struggle with reading comprehension and vocabulary are often reading at elementary grade levels. When I write IEP goals for these students related to reading comprehension, I often think about the grade-level assignments they are being asked to complete, their current reading levels, and the skills they will need in order to discern the meaning of vocabulary words and comprehend what they have read. There is, without question, a sizable gap between their reading abilities and the texts they are being asked to comprehend. Watching so many of my students struggle so immensely with reading and vocabulary has pushed me to pursue a career in which I could devote my days working with children to strengthen their literacy skills.

In January of 2019, I began my coursework at Hamline University in order to obtain my Master's degree in Literacy Education. I aspire to become a Reading Specialist

so that I can provide effective interventions to students that will improve their literacy skills. Throughout my coursework and my teaching experiences, it has become very evident to me that there are many outside factors in a student's life that impact their ability to be successful in school. While it can be argued that children do not end up using some of the things they learn in school, the ability to read and comprehend information is a skill that students will need to develop and use for the rest of their lives. As an educator, I believe that I have both an ethical and professional responsibility to ensure that students are mastering this skill at an early age so that they are able to reach their full potential. The aim of my research is to determine effective academic vocabulary interventions to use with low-income students at an early age, before they are forced to carry the burden of not possessing the literacy skills they need to be an independent, successful, and contributing member to society.

Summary

This introductory chapter provides insight into my professional experience thus far, which has led me to my current research. The timely issue of poverty and education, with attention to literacy skills, has been briefly explored. The ineffectiveness of professional development models concerning poverty have been detailed, as well as the importance of early academic vocabulary interventions. In Chapter Two, the literature on poverty and academic vocabulary is reviewed. In Chapter Three, the methodology for the systematic literature review is provided. The extended literature review in Chapter Four includes an in-depth review of research articles related to vocabulary interventions for low-income students. The final chapter, Chapter Five, discusses how the extended literature review addressed the research questions.

CHAPTER TWO: LITERATURE REVIEW

Introduction

I am researching the impact of poverty on academic vocabulary development because I want to determine how poverty affects the acquisition of vocabulary, in order to help readers understand the importance of early vocabulary interventions. Review of literature confirms that disparities in vocabulary skills is not a new issue, and that factors outside of school are often a strong predictor of a child's success or failure in progressing through school with grade-level or above grade-level vocabulary skills (Carlisle, Kelcey, & Berebitsky, 2013; Corcoran Nielsen & Dinner Friesen, 2012; Goldstein et al., 2017; Hemphill & Tivnan, 2008; Lervag et al., 2018; Marulis & Neuman, 2013). Through my research, I have identified a number of important themes in the correlation between low socioeconomic status and vocabulary skills. The impacts of poverty on learning will be discussed in the section "Poverty and Education". In the section "Poverty and Vocabulary Development", student experiences with vocabulary will be examined, with attention to the implications resulting from lack of vocabulary exposure. The section "Vocabulary Interventions" will detail the importance of early interventions for students living in poverty as well as implementation and results of effective interventions. Research on the aforementioned topics directly supports my research question: How does poverty impact academic vocabulary skills and how can early vocabulary interventions be used effectively in order to strengthen the academic vocabulary skills of students living in poverty?

Poverty and Education

My research aims to determine the relationship between poverty and vocabulary skills in order to determine effective interventions to use with students whose literacy skills have been impacted by poverty. This section will provide information on poverty as well as an overview of the issues related to poverty and education. Poverty is broadly defined as lack of resources required to maintain a minimal standard of living (Van der Berg, 2008). Those living in poverty often struggle to obtain shelter, employment, and enough food to adequately sustain all family members (Silva-Laya et al., 2020). While there are people living in poverty that are unemployed, it is important to note that many of those impacted by poverty are underemployed. They may be working jobs that are not providing high wages, or they may not be able to obtain full-time employment (Ullucci & Howard, 2015). When basic needs are not met due and gainful employment is not easily attainable, there are both social and educational implications for people of low socioeconomic status. Research shows that children living in poverty are more likely to experience educational delays and lower academic achievement than their peers (Johnson et al., 2016). This may be because children in poverty do not have a space at home that is conducive to studying and learning, and because these children are less likely to receive assistance with their academic work than their middle and upper-class peers (Silva-Laya et al., 2020). Low socioeconomic status can also contribute to poor school attendance.

Poverty and Attendance

Inconsistent school attendance and failure to value or understand formal education can also inhibit poor students from experiencing academic success (Van der Berg, 2008). Research indicates that children living in poverty are absent from school twice as often as

their peers who are of middle or upper-class, and that poor children in elementary school demonstrate worse attendance than those in secondary schools. Elementary-age students living in poverty often display higher rates of absenteeism than secondary students as they require more support from parents and guardians in getting to school (Zhang, 2003). Poor attendance can also be the result of parents or guardians not being able to obtain employment, forcing the family to move frequently, resulting in a child not being able to attend school consistently (Ullucci & Howard, 2015). Students in poverty may be frequently absent from school due to responsibilities with caring for their siblings or helping their parents out at work (Lervåg et al., 2018). Poor or unsafe housing conditions can also cause children to be sick more often, resulting in excessive absences (Naven et al., 2019). When students who live in poverty are not able to make sufficient educational gains, they fall behind academically.

Achievement Gap

There are substantial gaps in educational achievement between poor and socioeconomically advantaged students in the United States, and research indicates that students who live in poverty consistently perform worse academically than their peers (Lacour & Tissington, 2011). Though research does show that children living in poverty are able to achieve what would equal one or two years of academic growth during a school year, their middle- and upper-class peers are also able to make these gains (Tienken, 2012). This is problematic for poor students, as they are often at a lower starting point than their peers, meaning that the gap in achievement is still present. What is even more concerning is that during the summer, middle- and upper-class students usually maintain their academic progress while poor students often lose two or three

months of learning and skills (Tienken, 2012). If sufficient resources are not dedicated to these students, the gap in educational performance between poor students and their middle and upper-class peers will continue to grow. While some believe that schools have the power to reduce the achievement gap by implementing various strategies, others are firm in their opinion that poverty is a powerful force that cannot be taken on by schools alone (Levin, 2007). This puts teachers and school officials in difficult positions, as they are often left struggling to comprehend their responsibility in mitigating the effects of poverty on a child's education.

In discussing instructional techniques for working with poor students, researchers underscore the importance of a teacher's need to reject any implicit biases that may be present regarding students and families living in poverty (Ullucci & Howard, 2015). Failure to do so can reinforce the common belief that in order to get out of poverty, and for students to increase educational outcomes, poor families and children simply need to work harder. Teachers and school administration should instead concentrate on the complex reasons for persistent poverty, and how the cycle of poverty is so challenging for some families to escape from. In working to close the achievement gap between poor students and their middle- and upper-class peers, teachers must work actively to value and motivate these students (Ullucci & Howard, 2015). School programs that support student-teacher relationships and a child's social-emotional development are important for increasing motivation in students who experience poverty (Silva-Laya et al., 2020). Researchers indicate that it is also important for teachers to remember that values and beliefs about education differ among various racial and socioeconomic populations (Lacour & Tissington, 2015). Teachers should engage in instruction that allows students

to use their experiences and prior knowledge in the classroom. Schools can also work to lessen the adverse effects of poverty on education by creating a partnership with families, especially for students who are considered at-risk due to lack of educational achievement (Lacour & Tissington, 2011). Since families living in poverty lack many of the resources socioeconomically-advantaged families have access to, schools should be aware of community resources and connect families with them whenever possible (Ullucci & Howard, 2015). While there are many things that educational professionals can do to address the impacts of poverty on a child's education, challenges may arise when schools are largely comprised of students living in poverty.

High-Poverty Schools

Students living in poverty often attend schools labeled as high-poverty schools, meaning that over half of the student body is impacted by poverty (Samuels, 2019). High-poverty schools are the result of large groups of poor people living in a concentrated area. This often occurs due to the location of affordable or government-assisted housing (Machtinger, 2007). Additionally, poverty does not impact all racial groups equally, which has resulted in the unintentional resegregation of schools. Research indicates that approximately 38% of Black children and 34% of Latino children live in poverty (Ullucci & Howard, 2015). Children attending high-poverty schools are more likely to have negative educational experiences, as they are mainly surrounded by other poor students in school (Van der Berg, 2008).

Children living in poverty are met with a number of disadvantages in school. Many students living in poverty are unable to participate in extra-curricular activities because they can not afford the participation fee or the clothing and equipment required

(Naven et al., 2019). Financial instability can also result in families not being able to afford school uniforms, impacting a child's feelings of belonging (Naven et al., 2019). Low-income parents experience a high amount of stress, resulting in harsher disciplinary practices that can increase behavioral and cognitive issues in their children (Naven et al., 2019). There are also negative implications for teachers and other educational professionals who work in schools with predominantly poor students.

High-poverty schools tend to have fewer resources than schools that serve middle and upper-class students (Samuels, 2019). A review of national funding for K-12 schools shows that when cuts are made in educational funding, the budgets of high-poverty schools are more severely impacted than schools whose population is primarily socioeconomically advantaged students. Since students living in poverty are often already falling behind academically, these schools also have the responsibility of providing remedial programming, but with limited funding (Knight, 2017). Funding is not the only variable impacting the success of high-poverty schools. When compared to schools with mainly middle and upper-class students, schools that serve predominantly poor students often have fewer highly qualified teachers. There also exists a higher rate of teacher turnover in high-poverty schools. In addition to lack of qualified instructors, high-poverty schools lack basic resources such as books, technology equipment, student support systems, and functional physical spaces (Machtinger, 2007). While it is evident that there are many factors that impede the success of high poverty- schools, it is also worth mentioning that some viewpoints of these schools are more optimistic. The first is that educational achievement can be improved through equal distribution of resources. The

second is that some high-poverty schools have found ways to be successful, so poverty should not be seen as a barrier to educational attainment (Machtinger, 2007).

The impacts of poverty on education are complex and interwoven. From the start, students living in poverty are often behind academically due to lack of basic resources, and poor attendance by low-income students further exacerbates this issue. Negative school experiences continue for students forced to attend high-poverty schools, which are the result of large groups of poor people living in a concentrated area. Although research on poverty in education has tended to focus on the adverse effects of poverty on education, less attention has been given to minimizing the impacts on students' ability to make educational gains, especially in the area of vocabulary development.

Poverty and Vocabulary Development

Successful reading comprehension, necessary for a majority of learning outcomes, depends on vocabulary skills (Lervåg et al., 2018). A child's knowledge of words in kindergarten is a predictor of later reading comprehension skills, which correlates with a child's ability to graduate from high school (Overturf, 2014). This section will explore how vocabulary is acquired, and the consequences that result from children not having adequate experiences with vocabulary.

Language development occurs well before children can even speak. Research indicates that from the time a child is born, they are aware of the changes in the units of sound in a spoken word, or phonemes (Morse & Cangelosi, 2017). At around ten months of age , babies are able to repeat sounds that they have heard, and by eighteen months, children are able to produce about ten item-specific words. When a child is about two years old, they begin to understand that when speaking, it is necessary for words to go in

a certain order, while also beginning to incorporate more abstract concepts into their speaking. Around two and a half years old, children begin to use spatial and emotional concepts in their language (Morse & Cangelosi, 2017). Research shows that children living in poverty have difficulty with a number of literacy skills, including knowing letter names, being aware of letter-sound correspondences, word recognition, and phonological awareness (Nancollis et al., 2005). As it is evident that the development of language occurs from a very young age, Morse & Cangelosi's (2017) research supports the assertion by Goldstein et al. (2017) and Lervåg et al. (2018) that children begin learning vocabulary through interactions with their parents and caregivers.

Vocabulary and Parent Involvement

As previously posited, a child's vocabulary development is greatly influenced by their interactions with their family (Corcoran Nielson & Dinner Friesen, 2012). Both the quality and quantity of language heard by children living in poverty is less than that heard by children from middle- and upper-class families (Malin et al., 2014). Since children in poverty do not experience adequate language interactions, they enter school knowing an average of 6,000 less words than students from middle-class families (Goldstein et al., 2017). Research also suggests that language interactions between parents and children should be warm and positive in order to foster expressive and receptive vocabulary skills. When these types of interactions are not consistent or present, a child's expressive and receptive vocabulary skills are lower than those of their peers (Perkins et al., 2013).

Low-income parents are also less likely than socioeconomically advantaged parents to read to their children, placing children at a disadvantage as reading is shown to aid in the development of a child's vocabulary skills. When these parents do read to their

children, they are less likely than middle- and upper-class parents to have discussions related to the book while or after reading (Malin et al., 2014). Less reading also occurs in low-income homes as parents and guardians lack access to books (Naven et al., 2019). Additionally, many children who live in poverty speak a different language at home than at school. Many research studies have shown that bilingual children have lower vocabulary and reading comprehension skills than their peers who speak only one language. English language skills of bilingual parents may not be proficient, which impacts their ability to read to their child or assist with reading assignments that are in English (Lervåg et al., 2018).

In order for children to develop language-processing skills, which help with vocabulary development, parents and guardians need to engage in child-directed speech. That is, parents need to spend an ample amount of time talking to their children, while simultaneously using complex vocabulary words (Weisleder & Fernald, 2013). Children with less educated mothers tend to score lower on tests that measure word knowledge than children whose mothers possess higher levels of education (Marulis & Neuman, 2013). Parent involvement and parental language skills are a strong predictor of a child's success or failure with academic vocabulary, however, these factors do not always dictate a child's social language skills.

Informal Language versus Academic Vocabulary

Words can be categorized into tiers in terms of their frequency and difficulty in an academic setting. Tier 1 words are more common words that do not require instruction, Tier 2 words are used in both social and academic settings, and Tier 3 words are content specific, are usually not known by students, and require instruction in order

for understanding. Academic vocabulary words are those that occur commonly in various content areas, in both writing and spoken language, and is made up of Tier 2 and 3 words. A multitude of educational policies assert that proficiency in academic vocabulary is necessary in order for a student to obtain academic success across various contexts (Goldstein et al., 2017). While students in poverty may struggle with academic vocabularies, they often possess a strong understanding of social vocabulary, or sometimes more commonly known as casual language.

In the academic setting, both casual and formal language are used. Research shows that when people live in poverty for long periods of time, they tend to use formal language less and instead rely heavily on casual language, which can be described as the language used between friends (Payne, 2008). Many students, regardless of socioeconomic status, use social media platforms to communicate with each other. Students are given ample opportunities to use casual language when using social media, as this type of communication is commonplace on these sites. Use of social media by students also makes them privy to words that are often present in conversational vocabulary (Alm, 2015).

It is well-established by research that a child's vocabulary instruction and development begins far before they begin their schooling (Goldstein et al., 2017). The amount of early vocabulary exposure a child receives is dependent on their family's socioeconomic status and level of education (Malin et al., 2014). Children living in poverty often become more comfortable with casual vocabulary, and have difficulty with incorporating academic vocabulary into their speech and writing (Alm, 2015). Based on

these findings, it would be of interest to further pursue effective vocabulary interventions for students who are impacted by poverty.

Vocabulary Interventions

It is apparent to researchers and teachers alike that there are vast differences in word knowledge among students, with socioeconomic status as a contributing factor (Marulis & Neuman, 2013). This section will review effective interventions for these students, including suggested ages and grades for implementation. In order to increase vocabulary skills, poor students need direct instruction in academic vocabulary that is more individualized than the instruction that is given in the classroom (Goldstein et al., 2017). When interventions are targeted for students based on need, children are more likely to make gains in their vocabulary skills, which in turn furthers their success in reading (Marulis & Neuman, 2013). In order to address gaps in vocabulary that result from low socioeconomic status, students need to receive interventions in their early elementary school years (Carlisle et al., 2013).

Explicit Vocabulary Instruction

Explicit vocabulary instruction is an instructional strategy in which a teacher clearly explains the meanings of words to students, gives students multiple examples of the word in different contexts, models how to use the word in a sentence, and then allows the students multiple opportunities to practice using the word (Goldstein et al., 2017). For students who struggle with vocabulary due to poverty, explicit instruction is crucial, as these students often do not have implicit knowledge of academic vocabulary words (Rupley & Nichols, 2006). A meta-analysis by Marulis & Neuman (2013) confirms this, citing research from the National Reading Panel Report (2000), which recommends that

vocabulary interventions should provide direct instruction and repetition, as children with vocabulary difficulties require much more explicit and supportive instruction than the majority of students. Additionally, explicit instruction of academic vocabulary words allows students to make associations between words and their experiences, increasing the chance of vocabulary retention and moving beyond rote memorization of words (Goldstein et al., 2017). Carlisle et al. (2013), argue that while explicit instruction is an effective teaching strategy, it should not be used in isolation when working with students who have deficit vocabulary skills due to poverty.

Shared Book Readings

When children are able to engage in shared book reading with an adult or other proficient reader, they are able to hear vocabulary words and gain phonological awareness as they learn that certain sounds correspond with certain letters (Malin et al., 2014). Engaging in discussions with children while reading is a way to strengthen a child's vocabulary skills, the adult or skilled reader is able to draw on a child's current vocabulary knowledge and ask questions which may further their understanding of a word (Malin et al., 2014). To ensure that book readings are effective in providing vocabulary instruction to students in need of interventions, researchers recommend that teachers do three things. First, the teacher should give students the definition of a word from the text they are reading. Next, the teacher should provide students with examples of how to use the word. Last, the teacher should ask the students to create their own sentences using the word. When this instructional technique is used consistently, students receiving vocabulary interventions have shown to make more progress than students who were merely read aloud to (Carlisle et al., 2013).

Shared book readings commonly occur with fiction novels and short stories, but research shows that informational texts should also be used, especially with students in early elementary grades. Shared book readings of informational text with younger children is an effective way to introduce academic vocabulary. Researchers posit that while informational texts might be scarce for elementary school students, news articles are a type of expository text that can be used. In news articles, a story typically develops over time, and shared readings of these articles can be beneficial for students who struggle with vocabulary as articles that are written progressively on a particular event will likely use many of the same vocabulary words and concepts. This enables students to have repeated exposure to academic vocabulary words while also allowing them to construct valuable background knowledge that can be used for subsequent educational tasks (Roessingh, 2019).

Repeated Readings

Repeated readings is an intervention strategy that involves reading through a text multiple times. When paired with word-meaning explanations, children have shown to make significant gains in their vocabulary skills (Carlisle et al., 2013). Research shows that repeated readings with word-meaning explanations results in students being able to acquire more words than repeated readings alone. When a teacher is engaging in repeated readings with world-meaning explanations, they are making a conscious effort to help children attend to the meaning of a word while they are listening to a story, which may not be possible if the child is left to independently determine the meaning of an unknown word that appears in a text. When selecting texts for repeated readings, teachers should select texts which include words that are likely to be unknown by a majority of students

in the class. Before engaging in repeated readings with word-meaning explanations,

teachers should pre-select words from the text that they will explain during reading.

Pre-selection allows for teachers to assess student understanding of words at a later date.

In order to effectively teach the meanings of selected vocabulary words, teachers should

engage in repeated readings twice in the first week of instruction with the selected text,

and up to four times in the second week of instruction (Biemiller & Boote, 2006).

Assisted Repeated Readings

For younger students, assisted repeated readings may be necessary when the goal

is increased vocabulary development. Research shows that beginner readers are able to

acquire more receptive vocabulary with assisted repeated readings than with unassisted

repeated readings (Serrano & Huang, 2018). Assisted repeated readings also allow

beginning and struggling readers to understand the correct prosody of texts, which

increases their comprehension, which may in turn increase their learning of unknown

words. Researchers suggest that if a teacher is concerned with students reaching

immediate vocabulary goals, assisted repeated readings can occur over a short period of

time, but stronger retention of vocabulary results from assisted readings that are repeated

every seven or more days (Serrano & Huang, 2018).

Research confirms that explicit instruction is necessary when addressing the

deficit vocabulary skills of students living in poverty. Shared book readings, repeated

readings, and assisted repeated readings have been shown to be effective interventions for

students who struggle with academic vocabulary. Research, however, has tended to focus

on interventions for students in upper-elementary grades, rather than interventions for

students in preschool and early elementary grades. Therefore, more attention is needed in

the area of early interventions, as interventions are not usually introduced until a problem with reading comprehension is noticed (Carlisle et al., 2013).

Summary

This chapter provides an overview of the impacts of poverty on education. A plethora of research exists which confirms that children living in poverty are often academically behind their peers. A review of literature on the effects of poverty on vocabulary shows that children living in low-income homes know significantly less words than their middle- and upper-class peers, and that these differences can be seen before children begin schooling. Vocabulary interventions employing explicit instruction are among the most effective for increasing vocabulary skills of students living in poverty.

While much of the literature reviewed presented the educational problems that result from a child living in poverty, more research is needed regarding solutions for addressing the impact of poverty on education. The goal of my research is to determine vocabulary interventions that are effective for use with students in early elementary grades in order to answer my research question: How does poverty impact academic vocabulary skills and how can early vocabulary interventions be used effectively in order to strengthen the academic vocabulary skills of students living in poverty? Chapter Three will detail the methodology used to analyze current research that assesses the effectiveness of vocabulary interventions used with low-income students.

CHAPTER THREE: METHODS

Introduction

The literature reviewed in chapter two clearly illustrates that poverty negatively impacts a child's literacy skills. To determine appropriate vocabulary interventions for students living in poverty, I am completing an extended literature review to explore various vocabulary interventions that are intended to increase the academic vocabulary skills of students with vocabulary deficits, particularly those living in poverty. The following questions guide the research: How does poverty impact academic vocabulary skills and how can early vocabulary interventions be used effectively in order to strengthen the academic vocabulary skills of students living in poverty?

This chapter will detail the procedure for selecting and analyzing articles for this extended literature review. The criteria for inclusion of research will be explained. Key search terms will be included, with explanation of their effectiveness in ascertaining articles that meet the criteria of inclusion, and the data collection process will be given in the event that others would wish to replicate the process of collecting and reviewing literature.

Parameters for Data Collection

I began gathering literature by completing some preliminary searches on Hamline's Bush Library database, Hamline Catalog. After determining a narrower focus for my research, I gathered articles for review through the internet, using the following search engines available through Hamline University's Bush Library databases: Academic Search Premier, Education Full Text (EBSCO), Educational Resources Information Center (ERIC), Journal STORage (JSTOR), and Teacher Reference Center. I

also used Google Scholar, however, some articles were difficult to obtain through this search engine, so I resorted to looking up the same articles in the aforementioned databases.

To gather research on vocabulary interventions that have been implemented in low-income schools or with low-income students, I used the following search terms:

- poverty and vocabulary instruction

- reading interventions and poverty

- vocabulary and low income

- vocabulary interventions and low income

- academic vocabulary and poverty

- vocabulary interventions and poverty

I chose to use "low income" as a search term in addition to "poverty", as I found that these terms were often used interchangeably when I gathered my preliminary research for review in Chapter Two.

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Criteria for Inclusion

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Socioeconomic Status

Articles were only included that focused on adverse impacts of poverty on vocabulary skills, as it is not relevant to the research question to look solely at the vocabulary skills of socioeconomically advantaged students. Additionally, research that included information on parental vocabulary skills and education was included in this extended literature review, as research shows that a parent's level of education impacts their ability to participate in activities that promote academic vocabulary development (Marulis & Neuman, 2013).

School Setting

Information on the vocabulary skills of children not old enough to attend school was included in Chapter Two and highlighted the vast differences in these skills, which are shown to be strongly correlated with socioeconomic status. For the purpose of this extended literature review, research in vocabulary interventions was only selected if the interventions took place in preschool or kindergarten through twelfth grade. Studies that included interventions for children ages birth to three years were excluded as they do not align with the research question. Studies that focused on interventions for students in post-secondary grades were also rejected as the aim of the research is to determine effective interventions that can be used with children in early elementary school in order to strengthen skills before students begin to receive more demanding coursework.

Types of Interventions

Literature on interventions was included in the review only if the interventions were proven effective in improving academic vocabulary skills. As the research aims to determine effective vocabulary interventions, it would not be beneficial to include information on interventions that did not result in vocabulary gains for students. In the event that a reader would wish to replicate the interventions in their own educational setting, only interventions that included a comprehensive procedure were included.

Peer-Reviewed Status

To ensure that information included in this literature is accurate, only literature that is peer-reviewed was included in the literature review. Peer-reviewed articles are written and reviewed by several experts, making the included information more reliable.

Dates

Research articles were only included if the research was conducted after the year 2000, as it was important to focus on current educational issues that low-income students are facing. Research on effective instructional strategies continues to evolve, so it was imperative that only current research on teaching methods was included in the extended literature review.

Data Analysis

The intent of this literature view is to determine the impacts of poverty on academic vocabulary skills and effective interventions that can be used to strengthen vocabulary skills of students living in poverty. The impacts of poverty on education and vocabulary skills are complex, and therefore, could not simply be represented in charts and tables. Data in this literature review was analyzed qualitatively and quantitatively. There is value in presenting vocabulary gains from interventions in quantitative form, but it is also essential to discuss varying vocabulary skills and effective interventions in paragraph form. Google Sheets, a computer spreadsheet program, was used to keep track of study results and to compare and contrast results from different studies.

Appraisal of Studies

Studies included in this literature review were evaluated based on their ability to effectively address the research question. Both primary research studies and meta analysis studies were included in the extended literature review. Studies reviewed and included reported findings quantitatively, qualitatively, and through a mixed methods approach of reporting data both quantitatively and qualitatively within the same study. Studies were reviewed that included interventions using various explicit versus embedded vocabulary instructional models. The extended literature review is concerned with the

effectiveness of vocabulary interventions for students in poverty, so studies were evaluated to ensure they included the following:

- An appropriate population of participants

- Evidence of interventions being effective with study participants

- Effectiveness of the interventions was proven in the research results

- Follow-up for the interventions over time to ensure that interventions were successful in sustaining academic vocabulary skills

- Research and rationale to support chosen interventions

Summary

This chapter provided an explanation of the process used to collect and review research. The criteria for inclusion of research, including school setting, intervention types, and peer-reviewed journal articles. Data analysis methods were reviewed and reflect the complexity of the research issue. In Chapter Four, the results of the literature review will be presented.

CHAPTER FOUR: EXTENDED LITERATURE REVIEW

Introduction

Before we even begin formal schooling, we are all exposed to words in some capacity. If we are fortunate, books are read to us, we are able to repeat the words we hear others use, and we spend ample time doodling nonsense squiggles on paper before we learn how real letters are formed. When formal schooling does begin, literacy skills quickly become an integral part of our everyday academic lives. Being able to decode words, read a text fluently, ascertain meaning from the reading, and having the ability to express thoughts through writing becomes increasingly important as one progresses through their education. Reading and writing can bring relaxation, allow us to gain and express necessary information, or simply satisfy our sense of curiosity. While this may be the case for many of us, it is not the reality for all. Children living in poverty often have limited literacy experiences, and as a result, have smaller vocabularies when compared to their middle and upper class peers (Beck & McKeown, 2007; Kennedy, 2018; Oslund et al., 2018; Spencer et al., 2012; Tivnan & Hemphill, 2005; Wasik & Hindman, 2020).

These disparities can be problematic for several reasons. The first is that the reading levels of children of low socioeconomic status are commonly well below grade-level (Tivnan & Hemphill, 2005). Because these children have reading levels that are lower than what is expected for their age, they have trouble reading and comprehending classroom texts (Wasik & Hindman, 2020). These comprehension difficulties are most often related to a child's inability to determine the meaning of words within a passage (Kelley et al., 2010). Lastly, when interventions are not implemented to address deficit vocabulary skills, the gap in achievement between children living in

poverty and their socioeconomically advantaged peers continues to grow (Noltemeyer et al., 2019; Oslund et al., 2016).

Extensive research exists on the factors that contribute to poverty and the negative impacts that it has on a child's academic attainment, while research on effective vocabulary interventions is less prevalent. As schools become increasingly diverse, ensuring that students have equitable educational opportunities is of the utmost importance. To address the gap in research on vocabulary interventions for low-socioeconomic students, I conducted an extended literature review to further explore current research on academic vocabulary interventions for students living in poverty. Review of this research will also allow me to address the research question: How does poverty impact academic vocabulary skills and how can early vocabulary interventions be used effectively in order to strengthen the academic vocabulary skills of students living in poverty?

This extended literature review will be organized in the following manner. First, articles selected for the extended literature will be briefly described, including the type of intervention and the study's research methodology. Articles that were excluded from the extended literature review will also be introduced, and reasons for exclusion will be identified. Second, the research articles will be summarized, with similar findings grouped together to illustrate themes in the research. As a middle school Reading Interventionist, determining appropriate interventions to strengthen the academic vocabulary skills of my low-income students is crucial in order to minimize the achievement gap between them and their socioeconomically advantaged peers. The conclusion of the extended literature review will be a discussion of the relevant

vocabulary interventions to use with students experiencing poverty who also demonstrate deficits in their academic vocabulary skills.

Articles on Vocabulary Interventions for Low-Socioeconomic Students

Education Full Text (EBSCO), Academic Search Premier, and Educational Resources Information Center (ERIC) were the databases searched to obtain peer-reviewed articles that relate to academic vocabulary interventions for students living in poverty. Of the sixteen articles that were selected for this extended literature review based on the inclusion criteria defined in Chapter Three, two were excluded because while they contained information on poverty and literacy skills, and the studies followed students who struggled with vocabulary skills and were impacted by poverty, the researchers did not implement any vocabulary interventions with their study participants (Herbers et al., 2012; Oslund et al., 2018). A third article was excluded because claims made regarding effective vocabulary interventions were not supported by outside research (Hansel, 2014). A fourth article was excluded as the researchers conducting the meta-analysis on vocabulary interventions reviewed studies that included participants with multiple risk factors, rather than the singular risk factor of poverty (Marulis & Neuman, 2013). A fifth article was excluded because the study examined reading motivation in students impacted by poverty, but the results of the study failed to mention if vocabulary gains were made (Kennedy, 2018). A sixth article was excluded as it was a meta-analysis which did not include original research, and the interventions studied were not described in specific terms (Marulis & Neuman, 2010). The ten remaining articles shared a common research goal: to implement vocabulary interventions with students living in poverty in order to determine their effectiveness (Apthorp et al., 2012; Beck &

McKeown, 2007; Gonzalez et al., 2010; Jones et al., 2019; Kelley et al., 2010; Neuman et al., 2021; Noltemeyer et al., 2019; Spencer et al., 2012; Tivnan & Hemphill, 2005; Wasik & Hindman, 2020).

Types of Interventions Implemented

Two general types of interventions were employed in the ten articles that were reviewed. Eight of the articles used some type of explicit instruction in an attempt to increase the academic vocabulary skills of students from poverty. Explicit vocabulary instruction, a practice in which the teacher gives students an explicit definition of a target word prior to reading, was used in eight of the studies (Apthorp et al., 2012; Beck & McKeown, 2007; Gonzalez et al., 2010; Jones et al., 2019; Kelley et al., 2010; Neuman et al., 2021; Tivnan & Hemphill, 2005; Wasik & Hindman, 2020). Additionally, three of the articles that used explicit instruction in their interventions also included discussions as a tool for word learning (Gonzalez et al., 2010; Jones et al., 2019; Kelley et al., 2010).

Embedded instruction was the instructional strategy used in two studies. Tivnan & Hemphill, 2005, compared the effectiveness of three literacy interventions, Literacy Collaborative (LC), Developing Literacy First (DLF), and Building Essential Literacy (BEL), which were centered around embedded phonics instruction, in which generalizations regarding spelling patterns are taught informally as students encounter words while reading. In another study, information about the target word's meanings were provided through story events, illustrations, and through multiple exposures to the target words within the story (Spencer et al., 2012).

Methodologies Used in the Research on Academic Vocabulary Interventions

The studies examined in this extended literature review used two methodologies to collect the data necessary to evaluate the effectiveness of their interventions. Five of the studies used a mixed methods approach, collecting both qualitative and quantitative data to assess their interventions. Two studies used vocabulary test scores to determine the number of words learned while simultaneously evaluating the success of their intervention by collecting teacher feedback through written logs (Kelley et al., 2010; Tivnan & Hemphill, 2005). Three articles evaluated vocabulary gains through vocabulary test scores, and reading comprehension skills through student responses to open-ended questions which were evaluated by trained research assistants (Apthorp et al., 2012; Jones et al., 2019; Wasik & Hindman, 2020). The final study that employed a mixed methods approach scored student responses to vocabulary and comprehension questions according to a criterion-referenced rubric, and calculated words learned by comparing pre- and post-test vocabulary scores (Spencer et al., 2012).

The remaining five studies used quantitative data to measure whether or not students made vocabulary gains while participating in vocabulary interventions. Three studies assessed participants' vocabulary skills through standardized and researcher-generated assessments where students either chose the correct or incorrect answer (Beck & McKeown, 2007; Neuman et al., 2021; Neuman & Marulis, 2010), while one study collected data on vocabulary skills solely through the use of standardized assessments (Gonzalez et al., 2010). One study assessed participants' ability to identify words through correct or incorrect identification of words printed on flashcards (Noltemeyer et al., 2019).

Study Demographics

The ten articles reviewed were written on studies that varied in participant age, study size, intervention length, and percentage of participants that were experiencing poverty at the time of the study (Table 1).

Table 1 - Study Demographics

Reference	Participant Grade	Number of Participating Classrooms/Schools	Participants Qualifying for Free/Reduced Price Lunch	Intervention Length
Apthorp et al., 2012	Kindergarten - 5th grade	46 schools	75%	2 school years
Beck & McKeown, 2007	Kindergarten - 1st grade	Study 1: 8 classes Study 2: 6 classes	Study 1: 82% Study 2: 81%	9 weeks
Gonzalez et al., 2010	Pre-Kindergarten	28 classrooms 9 schools	90%	18 weeks
Jones et al., 2019	4th - 7th grade	25 schools	Not identified	2 school years
Kelley et al., 2010	6th grade	12 classrooms 7 schools	58-100%	18 weeks
Neuman et al., 2021	Pre-Kindergarten - 1st grade	74 classrooms 12 schools	91-100%	21 weeks
Noltemeyer et al., 2019	Kindergarten	7 students	60%	5 weeks
Spencer et al., 2012	Kindergarten	3 classrooms	Not identified	Not identified
Tivnan & Hemphill, 2005	1st grade	16 schools	87%	1 school year
Wasik & Hindman, 2018	Pre-Kindergarten	20 classrooms	87%	1 school year

Important Findings on Vocabulary Interventions for Low-Income Students

A majority of the current research on the impacts of poverty on academic vocabulary seeks to determine what can be done to improve language skills of low-income students. Many researchers agree that intensive interventions need to be in place to close the gap between these students and their socioeconomically advantaged peers (Apthorp et al., 2012; Kelley et al., 2010; Noltemeyer et al., 2019; Tivnan & Hemphill, 2005). Research shows converging themes of explicit instruction, embedded instruction, discussions, and guided and shared reading as effective interventions for students living in poverty. Explicit instruction offers a way for educators to directly convey definitions of words to students, which is necessary for children who have gaps in their vocabulary skills (Apthorp et al., 2012; Beck & McKeown, 2007; Gonzalez et al., 2010; Kelley et al., 2010; Neuman et al., 2021; Noltemeyer et al., 2019; Tivnan & Hemphill, 2005; Wasik & Hindman, 2018). Embedded instruction is a less direct instructional strategy for word learning that uses certain text structures to convey the meaning of words (Spencer et al., 2012). Discussions have shown to increase motivation in struggling learners, aiding in the word learning process (Beck & McKeown, 2007; Jones et al., 2019; Neuman et al., 2021). Guided and shared reading are interventions that allow teachers and students to work together throughout the reading process, with word learning activities integrated to promote gains in vocabulary knowledge (Gonzalez et al., 2010; Neuman et al., 2021; Tivnan & Hemphill, 2005). Each of these topics will be further examined in this extended literature review.

Explicit Instruction

Explicit instruction is an instructional technique in which educators provide content through highly structured activities, while simultaneously giving students direct,

guided instructions for completing the lesson activities (Kelley et al., 2010; Gonzalez et al., 2010). In determining whether or not their chosen interventions would improve the vocabulary skills of participants, seven of the studies turned to various methods of explicit vocabulary instruction (Apthorp et al., 2012; Beck & McKeown, 2007; Gonzalez et al., 2010; Kelley et al., 2010; Neuman et al., 2021; Noltemeyer et al., 2019; Tivnan & Hemphill, 2005; Wasik & Hindman, 2020), and one study employed explicit phonics instruction (Noltemeyer et al., 2019).

Explicit Phonics Instruction

Explicit phonics instruction begins with instruction on letters, or graphemes, and their associated sounds, or phonemes. After these basic principles are taught, students learn how to blend sounds into syllables, and eventually are able to blend syllables into words (Messmer & Griffith, 2005). One study identifies that a majority of children living in poverty enter kindergarten with low basic reading skills, and that explicit phonics interventions are necessary in order for these children to understand letter-sound correspondences, which enables them to read and spell unknown words (Noltemeyer et al., 2019). This study used flash cards to present words to students. The instructor would read the word to the students, point to each letter and identify the sound that the letter made and ask students to repeat the sounds. Students were then led in blending the sounds together to make the word. After all words were presented in this fashion, the teacher would show the students the cards a second time, asking students to identify and blend the sounds on their own. Results of this study indicate that students were able to recall more words than students who did not receive explicit phonics instruction. Based on these results, researchers ascertained that students who can identify letter-sound

correspondences are also able to represent the objects they see with written and spoken words.

Another study used explicit phonics instruction to teach students letters (Tivnan & Hemphill, 2005). In this study, researchers implemented a scripted reading program called Success For All (SFA), and presented students with cards that had individual letters printed on them. The teacher would pronounce the letter, ask students to repeat the letter, and then would ask students to identify the sound that the letter made. The teacher and students would then proceed to read words that contained that specific letter. Results from this study show that students who participated in the SFA intervention earned higher scores in measures of word identification, decoding, and oral reading than students who did not. While primarily younger students benefit from explicit phonics instruction, explicit vocabulary instruction is appropriate for students of all ages who struggle with academic vocabulary due to poverty.

Explicit Vocabulary Instruction

Five of the studies that investigated the effects of explicit instruction also incorporated teaching target words to students (Beck &McKeown, 2007; Jones et al., 2019; Kelley et al., 2010; Neuman et al., 2021; Wasik & Hindman, 2020). The researchers hypothesized that giving study participants explicit definitions of vocabulary words that would be present in their reading materials would improve both understanding of the words in context and reading comprehension. Findings from two articles indicate that teachers' frequent use of target vocabulary words during instruction has positive impacts on student's receptive vocabulary skills, the skills needed to comprehend written and oral information (Kelley et al., 2010; Wasik & Hindman, 2020).

The Gonzalez et al. (2010) study used the following criteria to determine which words within a text qualified as target words: (a) the words were relevant to concepts being taught, (b) not likely to be known by students or heard in regular conversations, (c) the words would be important as students moved through their education, and would assist students in understanding content while reading. To teach target words, this study gave students explicit definitions of the target vocabulary words before, during, and after reading with the theory that multiple exposures to the words would elicit deep processing of the vocabulary and related concepts. Results of this study report significant gains in both receptive and expressive vocabulary skills by participants.

Three studies found that when students are able to use target words in structured discussions, they demonstrate stronger comprehension of the vocabulary words than if learning of target words was limited to rote memorization (Beck & Mckeown, 2007; Jones et al., 2019; Neuman et al., 2021). Another study confirmed this while also determining that students are able to understand all the ways a target word can be used when they are able to attach personal meaning to the words, and through incorporation of the words in their writing (Kelley et al., 2010).

Some of these target words are what researchers refer to as 'high utility words', or general academic vocabulary words that students are likely to see throughout their academic careers (Apthorp et al., 2012; Beck & Mckeown, 2007; Gonzalez et al., 2010; Kelley et al., 2010). One study taught high utility words to students by reading aloud challenging texts and teaching the meaning of the high utility words after the reading. In this study, high utility words were taught following the read aloud to encourage general vocabulary development, rather than to improve reading comprehension (Beck &

McKeown, 2007). Students in this study were also given opportunities to practice using high utility words in classroom discussions. Results from this article indicate that students who received this type of instruction on high utility words made stronger vocabulary gains than those who did not. Another study introduced high utility words and gave students the definitions of these words via pictures and student friendly definitions prior to students reading a passage (Apthorp et al., 2012). Students in this study participated in different teacher-guided word learning activities, which resulted in gains made word meaning, listening comprehension, and passage comprehension skills. A third study on vocabulary interventions, including instruction on high utility words also found that multiple exposures to these words results in word retention. These studies involved teachers posting visual cues of high utility words, asking students to incorporate the words into their writing, facilitating discussions in which students use high utility words, and providing students the opportunity to connect the words to personal experiences (Gonzalez et al., 2010; Kelley et al., 2010).

In summary, there is ample evidence to support that explicit instruction is an effective strategy for teaching academic vocabulary. Researchers agree that clearly defining words for students and giving them multiple exposures to the words through various word learning activities allows for retention. Beck and McKeown (2007) identify that when students are engaged in discussions, they are given the opportunity to process the academic vocabulary that teachers are intending for them to learn. When compared with explicit vocabulary instruction, embedded vocabulary instruction is an instructional strategy in which words are taught in a more indirect manner.

Embedded Vocabulary Instruction

While explicit instruction has been widely researched, embedded instruction has received much less attention. When students are taught the meaning of vocabulary words through embedded instruction, definitions are conveyed through illustrations, pictures, and multiple exposures to a word within a text (Spencer et al., 2012). The Spencer et al. (2012) research study assessed the effectiveness of an embedded vocabulary intervention with pre-kindergarten students using a set of ten books written about events that are likely to happen to students this age, and each book contained embedded lessons centered around two vocabulary words, with three questions to assess comprehension. Students who participated in this intervention listened to an audio recording of a book one time without embedded vocabulary instruction, and then three times with embedded vocabulary instruction. The embedded instruction consisted of the narrator pausing during the reading and asking the students to play a word game using one of the target vocabulary words or answer a question about the story. The audio recordings included pauses, which allowed students time to answer the prompts, and following their answers, the narrator would model the correct response to the posed question. Word learning activities used in this study included at least three opportunities to use each vocabulary word, two opportunities to give the definition of the word, and one opportunity to connect the word to personal experience. Results of this study show improvements in students' ability to learn vocabulary words, and less drastic improvements in students' ability to correctly answer comprehension questions related to the story.

Use of embedded vocabulary instruction with low-income students is a seldomly researched topic. This instructional strategy offers ways for students to learn the meaning of words through various parts of a story, and allows readers to hear what fluent oral

reading sounds like. Discussions offer a more direct way for students to practice using words in conversations, which can be beneficial for word learning.

Discussions

Discussions are another instructional technique that may support student learning of academic vocabulary. Prior to implementing any interventions, one study hypothesized that if the instructional goal is deep word learning, discussions need to be a focus of instruction (Kelley et al., 2010). To do this, the researchers in this study selected texts that would be relevant to students' lives, with the idea that there would be a higher probability of student engagement. Teachers who participated in the study confirmed this, noting that the texts often inspired new thinking, and students were motivated to share their ideas. This intervention was implemented at the middle school level, and each unit began with a whole-class discussion regarding the text they were about to read, paired with partner discussions and mock interviews after reading. Researchers in this study found that these discussions promoted the use and retention of the academic vocabulary from the text, as students were motivated to talk about what they had read, and were able to connect the text to personal events and social issues.

A second study in this extended literature review also tested the effects of discussion on word learning (Jones et al., 2019). Researchers in this study sought to determine the effectiveness of a vocabulary intervention called Word Generation (WG), which claims to employ analysis, synthesis, critique, and problem solving to build academic language skills in upper-elementary and middle school students. Each lesson in the WG intervention began with an engaging question, and other lesson activities included teaching of target words and a classroom debate. Results of this study indicate

that students were able to increase their vocabulary, perspective taking, and reading comprehension skills through their participation in this intervention.

Two other research studies implemented discussions with much younger students in an effort to improve academic vocabulary skills of low-income students (Beck & McKeown, 2007; Neuman et al., 2021). Preschoolers and kindergarteners were the student participants in both studies. In the Neuman et al. (2021) study, discussions followed shared book readings. Discussions were structured by the teacher, who gave students turns to express their thinking regarding the text, and to respond to what other students had said. To help students stay focused on discussing the text they had read, teachers began by asking students comparison and contrasting questions, posing more open-ended questions toward the end of the discussion. Results of this study indicate that these turn-taking interactions had a positive impact on children's ability to learn more words. Beck & McKeown's (2007) tested a vocabulary intervention called Text Talk, and their study involved asking students to make judgements about the target words they had learned through reading, and to verbalize those judgements in class discussions. Teachers in this study facilitated discussions by using questioning techniques to help students with expanding on their thinking and responding to their classmates. Results of this study show that significantly more vocabulary learning occurred in classrooms where the Text Talk intervention was carried out.

Research agrees that children of all ages benefit from opportunities to use academic language in conversations with their peers. For younger students, it may be beneficial for teachers to employ more structured discussions, while older students may need less teacher prompting. Regardless of the level of teacher involvement, research

shows that discussions are fueled by engaging texts. Students who struggle with vocabulary skills can also be engaged in the reading process through shared reading and guided reading interventions, which give students the opportunity to be active participants in the reading process while simultaneously allowing for teacher assessment.

Guided and Shared Book Reading

Shared Book Reading

As previously mentioned in Chapter Two, shared book reading allows students to be active participants in the reading process, as allocating time for student predictions, reading aloud, and oral re-reading with student participation are key elements of the shared reading process (Gonzalez et al., 2010). In the Neuman et al. (2021) study, each lesson contained five read aloud books that build off of each other and are designed for shared reading, along with scripted questions. Teachers who implemented this intervention spent more time enacting post-reading reflection and vocabulary word learning activities, as compared to teachers in the control group of this intervention. Students who participated in this intervention made gains in curriculum-based vocabulary and concept knowledge.

A second study on shared book reading sought to improve academic vocabulary skills of low-income preschoolers in the subjects of science and social studies (Gonzalez et al., 2010). Books in this study were chosen if there were a sufficient number of vocabulary words related to science and social studies topics, if students could determine the definitions of target words through book illustrations or photographs, and if the books could be read and discussed within a twenty minute reading session. Participants in this intervention engaged in twenty minutes of the shared reading process each day for

eighteen weeks. At the conclusion of this study, student participants demonstrated significantly higher receptive language skills.

Guided Reading

In contrast with shared reading, guided reading requires students to be more active in the reading process. Guided reading typically consists of a small group of students with similar reading abilities reading a text independently with some teacher prompting, before, during, and after reading to provide cues on the reading strategies that students should be engaging in (Tivnan & Hemphill, 2005). In the Tivnan & Hemphill (2005) study, three literacy interventions were examined that used guided reading. Building Essential Literacy (BEL), Literacy Collaborative (LC), and Developing Literacy First (DLF) use guided reading with leveled books with the goal of improving academic vocabulary skills. BEL and LC mandate the use of specific leveled reading books, while DLF recommends, but does not require specific reading materials. BEL and LC also suggest that as part of the guided reading process, small groups should engage in writing activities to support the acquisition of academic language. Lessons in all of these programs began with the teacher reading a text aloud to the students, followed by a discussion of the text. After the whole class read aloud, students were divided into reading groups, and the teacher worked with one reading group at a time while the other groups rotated through other literacy related activities. While working with the groups, teachers would ask students questions about any background knowledge they had related to the text, would prompt for use of decoding strategies, and would ask questions about the text when the group was finished reading. These interventions were effective in improving students' skills in the areas of letter-word identification, decoding, and

vocabulary, but researchers do identify that these programs did not bring students close to grade-level expectations in these areas.

While shared book reading is a more structured process than guided reading, both instructional strategies require students to be active participants. Research indicates that shared book reading may be more useful with younger learners, as they benefit from teacher-directed activities. Guided reading, on the other hand, requires that students are able to read a text mostly independently, with some teacher prompting. Both shared and guided reading give students opportunities to apply background knowledge prior to reading, and to engage in post reading reflection.

Summary of Findings

All of the articles in this review show evidence of improving the vocabulary skills of low-income students through vocabulary interventions. Multiple researchers agree that regardless of the vocabulary intervention, target vocabulary words should be selected prior to the beginning of a lesson so that they can be taught with intention and fidelity (Beck &McKeown, 2007; Jones et al., 2019; Kelley et al., 2010; Neuman et al., 2021; Spencer et al., 2012; Wasik & Hindman, 2020). Explicit instruction, which involves direct teaching of vocabulary words and their definitions, was a type of intervention assessed by eight of the ten reviewed articles, and all articles reported that students made gains in their vocabulary skills (Apthorp et al., 2012; Beck & McKeown, 2007; Gonzalez et al., 2010; Kelley et al., 2010; Neuman et al., 2021; Noltemeyer et al., 2019; Tivnan & Hemphill, 2005; Wasik & Hindman, 2018). Modest improvements in word learning and reading comprehension were made by student participants through embedded instruction, an instructional strategy in which definitions are conveyed in a more indirect manner,

leaving students to form their own conclusions about the meaning of target vocabulary

words. Discussions, guided reading, and shared reading were interventions that

incorporated different word learning activities, and allowed students to increase their

skills in the areas of receptive vocabulary, decoding and understanding of definitions. In

the following chapter, an analysis of research findings will be provided, including

limitations, implications, recommendations for future research, and how I plan to use the

research that has been reviewed in both Chapter Two and Chapter Four.

CHAPTER FIVE: CONCLUSION

The questions that guided the research were: How does poverty impact academic vocabulary skills and how can early vocabulary interventions be used effectively in order to strengthen the academic vocabulary skills of students living in poverty? First, I will review major findings of the literature review. Second, I will discuss the limitations of the research and review process. Third, I will summarize the implications of the literature review, with attention to possible implementation strategies for educational professionals. Fourth, I will make recommendations for future research in the area of poverty and academic vocabulary. Finally, I will communicate my plan for use of the extended literature review results.

Major Findings

Prior to conducting the extended literature review, it was evident that there is a correlation between poverty and lack of academic vocabulary skills, based on the research reviewed in Chapter Two. Research reviewed in Chapter Four confirms that there are a number of key findings confirming the positive impact of using explicit instruction, discussions, guided reading, and shared reading as vocabulary interventions for low-income students. Some interventions have been more widely researched, with explicit instruction as an intervention that has received much attention by researchers.

Explicit instruction was an instructional strategy initially introduced in Chapter Two, and was further reviewed in Chapter Four. In Chapter Two, explicit vocabulary instruction was explained as giving students the definition of a word, providing students with opportunities to use the word in word learning activities, and modeling correct word use (Goldstein et al., 2017). In Chapter Four, this notion was expanded upon, with

researchers agreeing that an important element of explicit instruction is pre-teaching of target vocabulary words, as this practice is associated with gains in word recognition (Beck &McKeown, 2007; Jones et al., 2019; Kelley et al., 2010; Neuman et al., 2021; Wasik & Hindman, 2020). Another important finding regarding explicit instruction is that of explicit phonics instruction for younger students, or with students who have difficulty with recognizing sound-letter correspondences. Effective explicit phonics instruction that involved directly teaching letter sounds and blending of sounds to produce words resulted in students' improved ability to read and recognize words (Noltemeyer et al, 2019; Tivnan & Hemphill, 2005).

The second major finding regards discussions and their effectiveness as a vocabulary intervention for low-income students. In Chapter Two, discussions between child and adult are referenced as a way to build word knowledge as the adult is able to ask questions related to a word that may further a child's understanding of the definition (Malin et al., 2014). Discussions were looked at more in-depth in Chapter Four, and researchers found that discussions are appropriate for use with students of all ages. Neuman et al. (2021) asserted that for younger students, it may be appropriate to incorporate structured discussions into lessons as a way to promote use of target vocabulary words. In the study by Kelley et al. (2010), it was found that pairing engaging texts with discussions when working with low-income middle school students resulted in use and retention of academic vocabulary.

Finally, shared reading and guided reading were instructional practices found to be beneficial for students with deficits in vocabulary skills due to poverty. In Chapter Two, it was cited that shared reading allows struggling readers to hear what fluent

reading sounds like, while also being able to hear the correct pronunciation and use of target vocabulary words (Malin et al., 2014). In Chapter Four, articles that reviewed shared reading determined that shared reading that includes oral re-reading with student participation and scripted teacher questions resulted in gains in receptive language and content area vocabulary (Gonzalez et al., 2010; Neuman et al., 2021).

Research from Chapters Two and Four indicate that when working with students in poverty, interventions that involve direct teaching are the most beneficial. Students with low vocabulary skills due to socioeconomic status require intense interventions in which definitions are clearly communicated, word use is modeled, and opportunities for practice through word learning activities are given. While this literature review found ample evidence to support the above claims, there were some limitations in the research and review.

Limitations

There were multiple limitations that impacted the research and literature review process. First, it was evident in preliminary research that poverty impacts much more than just academic vocabulary skills. However, it was not feasible to address all of these issues as this would have been too wide of a focus for the initial and extended literature review, given the time constraints for completion. Thus, the effects of poverty on other aspects of a student's life are not included in this paper. Therefore, those looking to gain insight on these topics may not find this research useful.

Another limitation of this study was the result of the specificity of the research question: How does poverty impact academic vocabulary skills and how can early vocabulary interventions be used effectively in order to strengthen the academic

vocabulary skills of students living in poverty? The aim of this literature review was to determine poverty's impacts on academic vocabulary, versus all types of vocabulary. As such, the adverse effects of poverty on other types of vocabulary fall outside of the scope of this review. Findings from some of the research articles included in Chapter Four were rejected as they did not align with the research question.

Implications for Educators

There are a number of important findings from the extended literature review that are relevant for educators. The first is that in general, explicit instruction is a necessary strategy to employ when working with learners who exhibit deficit literacy skills due to poverty. To use explicit instruction effectively, teachers should pre-select the vocabulary words from texts that they plan to read with students. Definitions of these words should be given prior to reading, and teachers should pause throughout reading to point out instances of the target vocabulary words. Prior to reading, the vocabulary words should be discussed with regards to how they were used in the story, as this will aid students in comprehending the text. When using the explicit instruction strategy to teach phonics, teachers should begin by teaching students individual letter sounds, and then move to sound blending exercises. Appropriate awareness of sound-letter correspondences, or phonological awareness, is necessary to recognize vocabulary words while reading, so explicit phonics instruction should be used with readers who are struggling with this concept.

Educators should also use discussions to their advantage when working with learners who are struggling with vocabulary skills due to poverty. In the classroom, teachers can structure discussions by giving students a prompt to discuss, posing

questions throughout the discussion to further thinking, and prompting students to use target vocabulary words, modeling appropriate word use if necessary. Teachers should also be mindful to select engaging texts when incorporating discussions in their lessons. This allows students to make connections between what they have read and their own lives and to expand on the thinking of their peers while incorporating predetermined vocabulary words in their speech.

When readers have needs in fluency in addition to vocabulary, guided reading and shared reading are effective teaching practices. When employing guided reading, teachers should compose small groups of students with similar reading abilities. This allows learners to work together when reading, while also allowing the teacher to assess student vocabulary skills within a small group setting. The teacher should create other word learning activities for student groups to do, so that all groups have a task during guided reading time. When engaging in shared reading, the teacher should read through the selected text orally, modeling appropriate rate, expression, and accuracy for students. The teacher should then encourage students to read along orally, with the expectation that they are matching the prosody of the teacher. Word learning activities should be integrated into shared reading through the use of discussions regarding vocabulary words and student-generated sentences that exemplify appropriate vocabulary word use.

There are a number of implications for educational professionals regarding vocabulary interventions to use with students in poverty. While the procedures for each intervention may vary, all interventions share a commonality in that they include multiple exposures to vocabulary words and opportunities for student practice. It is important that

these interventions are implemented with fidelity, and that further research is conducted in order to ensure that these vocabulary interventions remain effective.

Further Research

This literature review demonstrates that there is room for further research in the area of academic vocabulary interventions used with students living in poverty. The lengths of the interventions included in the research ranged from five weeks to two school years, but research that investigates use of interventions over three or more years may be of use. Research of this length would enable researchers to determine whether or not lasting impacts are made on student learning by use of various vocabulary interventions. Educational leaders would also benefit from this research when determining appropriate curriculum, class sequence, staffing, and class structure for reading intervention and support classes.

Student participants in all of the studies reviewed remained in poverty throughout the duration of the study. It would be interesting to research the impacts of interventions on students whose families are able to eventually move out of poverty. The rationale for this research is to determine if improved socioeconomic status and increased parent involvement positively impact a child's vocabulary skills. It is important to note that there may be limitations to this type of research, as it can be difficult for families to make advances in socioeconomic status with limited resources.

Throughout the literature review process, it was difficult to obtain articles on the motivation of low-income students in relation to academic vocabulary tasks, and thus, more research is needed in this area. It was noted by Kelley et al. (2010) that engaging texts encourage student discussions, but articles on other interventions failed to address

whether or not teachers encountered difficulty with student motivation when completing word learning tasks. As an educator, I recognize that when a student struggles with an academic skill, they are often reluctant to engage in any tasks that require use of that skill. Therefore, it would be beneficial for researchers to address the issue of motivation when implementing interventions, so that strategies for increasing motivation could be assessed, and eventually implemented by educational professionals.

There are many opportunities for future research in the area of academic vocabulary interventions. Completion of this research would be mutually beneficial for researchers and educators alike. Results from ruther research could be implemented in classrooms with learners who demonstrate needs in academic vocabulary due to poverty.

Communication and Use of Results

This literature review will be made available through Hamline's Bush Library Digital Commons. As other students research the topic of poverty and academic vocabulary interventions, it is my hope that my findings and references will be useful in furthering their professional learning.

In August of 2020, I will begin my career as a Reading Interventionist. I plan to use my research findings in my classroom, as I will be working with struggling readers. In addition to the reading curriculum provided by my school district, I will incorporate explicit instruction, discussions, and guided and shared book reading into my lesson plans. Doing this will enable me to partner with students as we work toward improving their academic vocabulary skills.

Conclusion

Research included in this review clearly shows a child's vocabulary development begins at home, and is very dependent on the vocabulary skills of those living in the home. When students who live in poverty do not experience quality interactions with language, delays in vocabulary skills develop. If early interventions are not provided, the gap between a low-income student's vocabulary skills and their socioeconomically advantaged peers continues to grow. Researchers assert that vocabulary instruction for these students needs to be explicit and highly supportive.

From a young age, I have had a passion for all things literacy, and have since worked to turn those interests into a career. In my experience as a special education teacher, I know that many students struggle with literacy skills due to outside factors. As a Reading Interventionist, I plan to be mindful of these factors while creating opportunities for my students to improve their academic vocabulary skills. Through my research, I have learned that creating instructional opportunities that allow students to make these gains can be a complex process. With my professional training and through continued research, I am confident that this is a challenge that I am prepared to take on. All students deserve quality literacy experiences and the opportunity to build sufficient academic vocabulary skills, regardless of socioeconomic status.

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