

Designing Effective Professional Development for Teaching Students in Poverty:
Impact on Teacher Beliefs and Classroom Practice

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ABSTRACT

Poverty has a consequential impact on student achievement. The No Child Left Behind Act and more recently the Every Student Succeeds Act put pressure on educators to close the achievement gap that exists for economically disadvantaged students. While this gap remains, high-poverty, high-achieving schools do exist. The purpose of this study was to discern the impact of practitioner-designed professional development (PD) on teacher beliefs about students from poverty. This study focused on the creation and implementation of PD designed to help teachers explore their beliefs, and investigated whether these beliefs changed after teachers received PD addressing teaching students from poverty. This PD was based on research from multiple studies on educators' perspectives and effective teaching strategies for poor students. The study was conducted using action research, with a mixed-methods approach, incorporating the quantitative analysis of surveys and the qualitative analysis of professional learning experiences and interviews. Findings from the study indicate that practitioner-designed PD can impact teachers' beliefs and lead to changes in their instructional practices. This research could provide guidance for school administrators and higher education leaders who seek to develop and implement PD that addresses teaching students in poverty.

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GENERAL AUDIENCE ABSTRACT

Poverty has a consequential impact on student achievement. The No Child Left Behind Act and more recently the Every Student Succeeds Act required educators to close the achievement gap that exists for students from poverty. After nearly two decades of efforts to implement the requirements of these main laws for K-12 public education in the United States, the gap remains. Yet, high-poverty, high-achieving schools do exist. The purpose of this study was to discern the impact of practitioner-designed professional development (PD) on teacher beliefs about students from poverty. Practitioners are defined in this study as practicing educational leaders in public schools. The study focused on the creation and implementation of PD designed to help teachers explore their beliefs and investigated whether these beliefs changed after teachers received PD addressing teaching students from poverty. Findings from the study indicate that practitioner-designed PD can impact teachers' beliefs and lead to changes in their instructional practices. This research could provide guidance for school administrators and higher education leaders who seek to develop and implement PD that addresses teaching students in poverty.

Dedication

This work is dedicated to my husband, Doug Wickham. Your support allows me to pursue my dreams. This accomplishment is not mine alone; it is our accomplishment. I would also like to dedicate this work to my children, Drake and Dane. May you always seek to help others in need, dream big, and persevere to accomplish your goals. To my seventh-grade teacher, Mrs. Virginia Marshburn, thank you for planting seeds that enlightened me and encouraged me to pursue a college education. I dedicate this work to my parents who did not have the opportunity to complete their educational goals. I thank them for instilling in me the importance of work ethic, grit, tenacity, integrity, and character. Finally, I dedicate this accomplishment to my sister, Deborah. Thank you for your encouragement along life's path. May you and our father rest in peace.

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Chapter 1

Introduction

Poverty may be one of the most significant factors influencing student achievement (Jensen, 2009). The No Child Left Behind (NCLB) Act of 2001 mandated annual testing in reading and math, with student data reported at the subgroup level for minority students, students with special needs, students with limited English proficiency, and students from low-income families, and it required that schools work to close the achievement gap (§201). The pressure of federal accountability has resulted in educators spending a tremendous amount of time identifying how groups of students differ in order to reduce discrepancies in student test performance. Yet, after almost 20 years of implementing NCLB measures to close the achievement gap between poor and non-poor students, the disparity remains (Ladd, 2017; Lee & Reeves, 2012).

Focusing on overcoming the limitations imposed by poverty may be more useful in influencing the lives of children than focusing on how students differ (Burney & Beilke, 2008). Despite the continued disparity in achievement, high-poverty, high-performing schools do exist (Suber, 2012). What are the characteristics of those schools? What role can teacher professional development play in translating the success of high achieving schools to schools that are failing students from poverty? Helping students from poverty achieve academically is increasingly important because the economic and educational gap continues to increase between rich and poor families in the United States (Budge & Parrett, 2018; Ladd & Fiske, 2011; Mullen & Kealy, 2013).

NCLB was reauthorized in 2015 as the Every Student Succeeds Act (ESSA). While the newer law provided relief from unrealistic federal timelines and objectives, it maintained the

provisions for annual testing and subgroup data reporting that were at the heart of NCLB (McGuinn, 2016). The implementation of subgroup data reporting under ESSA began with the 2018-19 school year. Recent testing in the Commonwealth of Virginia shows that the gap still exists for economically disadvantaged students, indicating that NCLB did not eliminate it. Pass rates demonstrate this gap in achievement in every content area of Virginia’s 2016-17 Standards of Learning (SOL) tests for all students, which includes students in poverty, compared to the disaggregated scores for the subgroup of economically disadvantaged students (Virginia Department of Education [VDOE], 2017, tables). Table 1 provides a list of the scores by content area.

Table 1				
<i>Percent of Students Who Passed the 2016-2017 Virginia Standards of Learning Tests</i>				
<u>Student Type</u>	<u>Reading</u>	<u>Math</u>	<u>Science</u>	<u>History</u>
All Students	80	79	82	86
Economically Disadvantaged	67	68	69	75

Despite educators’ efforts to implement NCLB requirements, the achievement gap between poor and non-poor students continues to increase in the United States (Ladd & Fiske, 2011; Mullen & Kealy, 2013). Obstacles to increasing the achievement of students in poverty include teacher beliefs, instructional strategies, and effective professional development. Teacher beliefs and perceptions about students in poverty impact the academic achievement of low socioeconomic status (SES) children (Archambault, Janosz, & Chouinard, 2012; Bomer, Dworin, May, & Semington, 2008; Budge & Parrett, 2018; Dell’Angelo, 2016; Gorski, 2008). There are essential instructional strategies that must be implemented when teaching students in poverty and

that are also effective for all students (Budge & Parrett, 2018; Jensen, 2009; Schlechty, 2011). However, there are problems with teacher preparedness and a knowledge–implementation gap (Guskey, 2000, 2009). This gap indicates the need for professional development.

Background

To help impoverished students succeed, educators must have a true understanding of what it means for students to live in poverty and how this impacts a child’s ability to thrive socially, emotionally, and academically in the classroom (Jensen, 2009). It may be difficult for some teachers from a middle-class background to understand why students from poverty behave the way they do (Payne, 2005), but it is essential that teachers have knowledge of their students’ culture. It is important to provide teachers with information about the ways students are affected by poverty (Jensen, 2009). Payne (2005) insisted that educators must learn and teach students the hidden rules of the middle class to help students achieve, asserting that educators have little experience with poverty outside of what they encounter in the classroom.

I am compelled to explore this topic because I grew up in poverty, and I know the impact that teachers can have on their students and the power they have to help children break the cycle of poverty. I experienced both biases and high expectations from my K-12 teachers, and it was a conversation with my seventh-grade teacher about the possibility of earning a college scholarship - a conversation that no one else had ever had with me before - that changed the path of my life.

Despite the potential positive impacts that teachers can make on students from poverty, and the importance of providing teachers with specific training on how to support those students, the school division in which I work does not currently have a formal professional development plan for working with students from poverty. This division’s test scores show

achievement gaps for students from poverty similar to those at the state level, indicating a clear need for this training (Virginia Department of Education [VDOE], 2017, tables). Table 2 provides a list of scores by content area.

Table 2				
<i>Percent of Montgomery County Students Who Passed the 2016-17 Virginia Standards of Learning Tests</i>				
<u>Student Type</u>	<u>Reading</u>	<u>Math</u>	<u>Science</u>	<u>History</u>
All Students	83	83	85	86
Economically Disadvantaged	69	68	68	71

We must act to research and provide effective professional development that will impact teachers' beliefs about students from poverty, to implement instructional strategies that will be most successful in helping students achieve, and to ensure that policies are in place to support this work.

In my current role as Director of Elementary Education, it is my responsibility to review, study, recommend, and implement effective programs that will increase student achievement. As I work with principals to help them close the achievement gap for students from poverty, I rely on my experiences as a former principal who led a distinguished Title 1 school that was recognized for closing this achievement gap. My personal and professional experiences have prompted me to hold strong views about good instruction. However, I will be open to the results that emerge from this study.

Statement of the Problem

Several studies have been conducted of Ruby Payne's commercially developed program for teachers working with students from poverty (Magee, 2005; Swan, 2011), but Payne's work presented only one perspective on the causes of poverty. Professional development incorporating additional perspectives on the causes of poverty, for example, those presented by Gorski (2008; 2018) and Budge and Parrett (2018), have not been studied.

While Payne's program has been shown to be successful when implemented with fidelity (Magee, 2005; Swan, 2011), it requires intensive technical assistance from paid consultants over several years. In contrast, practitioner-designed professional development avoids the cost barrier of purchasing a commercially developed program (Garet, Porter, Desimone, Birman, & Yoon, 2001), but there has been limited research on the impact of practitioner-designed professional learning experiences on teacher beliefs about students from poverty. Additionally, Gorski (2008; 2018) and Budge and Parrett (2018) asserted that Payne's culture of poverty professional development caused more harm than good for educators by training teachers to focus on students' deficits. Therefore, the need for an alternative teacher training program is evident.

To avoid the cost barrier, successful professional learning experiences may be designed by local practitioners, provided that these practitioners ensure that the training incorporates the characteristics of effective teacher professional development. Effective staff development must address teachers' beliefs and values, must be connected to the needs of educators, must take place during the scheduled workday, and must focus on improving student learning (Beavers, 2009; Croft, Coggshall, Dolan, Powers, & Killion, 2010; DuFour, 2004). A 2014 Gates Foundation study of professional development suggested that teachers more positively value training activities that directly support their practice (such as planning and reflecting on

instruction), help them to better know their students, and take place during the daily schedule, as these activities tap into teachers' motivation to help students learn. Unfortunately, many teachers view professional development more as a compliance exercise than an opportunity for increased learning (Gates Foundation, 2014).

It is important to study teacher beliefs because of the impact of these beliefs on student success. Teachers must reflect on their own beliefs and values to determine what shapes their perspectives on poverty (Budge & Parrett, 2018). Rubie-Davies, Flint, and McDonald (2012) asserted:

There is a plethora of research around student beliefs and their contribution to student outcomes. However, there is less research in relation to teacher beliefs. Teacher factors are important to consider since beliefs mold thoughts and resultant instructional behaviors that, in turn, can contribute to student outcomes. (p. 270)

Rubie-Davies et al. (2012) recommended further investigation of teacher beliefs, citing their potential impact on student achievement.

Leadership is important to this work. Professional development is most effective when strong leaders develop a culture in which continual learning is considered essential (Moore, Kochan, Kraska, & Reames, 2011). Because leaders can create policy and be the impetus for change (Schlechty, 2002), they need to be involved in supporting professional learning experiences for educators. Grant, Stronge, and Popp (2008) maintained that the teacher is the single most influential school factor affecting student achievement, and a relationship exists between continuing teacher professional development and student learning. Practitioners (practicing school leaders) are well-positioned to design, develop, implement, and study the

impact of professional development on teachers' beliefs and their knowledge about increasing the achievement of students from poverty.

Purpose of the Study

The purpose of this mixed-methods study was to discern the impact of practitioner-designed professional development (PD) on teacher beliefs about students from poverty. Beliefs are important because they mold teachers' thoughts and impact the instructional strategies they choose to implement in the classroom (Rubie-Davies et al., 2012). Existing studies do not explore multiple perspectives on poverty. So, this study focused on the creation and implementation of PD designed to help teachers explore their beliefs about students from poverty, because beliefs impact classroom practices, which impact student achievement.

The study investigated whether teachers' beliefs changed after they received PD addressing teaching students from poverty. This PD was based on research from multiple studies on educators' perspectives and effective teaching strategies for poor students. The study also examined whether changes in teachers' beliefs led to changes in their instructional practices. Results from this investigation address the current gap in the literature regarding the impact of practitioner-designed professional learning experiences on teacher beliefs about students from poverty. This research could provide guidance to administrators seeking to plan teacher training to improve the achievement of students in poverty.

Research Questions

The central research question for this study was: To what extent does practitioner-designed professional development impact teacher beliefs regarding students from poverty? I also attempted to address the following sub-questions:

1. What did teachers believe about students who live in poverty prior to participating in targeted PD?
2. How did teacher beliefs change after participating in targeted PD?
3. How did teachers adjust their use of instructional strategies after participating in targeted PD?

Significance

The United States Census Bureau (U.S. Census Bureau, 2013) states that there are 45.3 million people in the United States living below the poverty line. This number represents 14.5% of the US population and has increased by over 8 million since 2008. Thirty-three percent of the population, or 97.3 million US residents are low-income, meaning they have an income below twice the federal poverty line, or \$47,700 for a family of four. Taken together, these figures mean that 48% of the US population, or 1 in every 2 people, is poor or low-income. More than 1 in 5 children in the US (21.8%) are living below the poverty line. Poverty impacts all the subgroups defined first by NCLB and more recently ESSA.

Brooks-Gunn and Duncan (1997) asserted that “children who experience poverty during their preschool and early school years have lower rates of school completion” than students who experience poverty only in later years (p. 55). Their research suggests that interventions during early childhood may be most important in reducing poverty's impact on children. Budge and Parrett (2018) wrote, “As teachers and educators, we have an extraordinary opportunity to influence the course of our students’ lives and the future of the country,” (p. 12). Elementary teachers, in particular, have the opportunity to address the needs of students who are lacking readiness skills. Budge and Parrett (2018) declared the following:

Educators must have the knowledge and skills (ability) to recognize the conditions that too often deny students in poverty equal access to the educational opportunities provided their more affluent peers, and the disposition (willingness) to address and correct those conditions. (p. 21)

Why do some teachers and some schools help students in poverty learn and achieve at high levels while others struggle? Budge and Parrett (2018) suggested, “Stereotypes about people in poverty are deeply embedded in our society and influence our mental maps,” (p. 21). Thus, the impact of teachers’ beliefs on teacher learning and student achievement must be explored. Teachers who have success with students from poverty focus on factors that they can control rather than those that they cannot (Haberman, 1995). Strategic professional development along with on-the-job support that gives teachers specific strategies that they can implement, monitor, adjust, and control may yield improved student results. To increase the achievement of children in poverty, educators must have both a clear understanding of the impact of poverty on their students and the necessary tools to reach and teach them.

Results from the current study will address the gap in the literature regarding the impact of practitioner-designed professional learning experiences on teacher beliefs about impoverished students. This new research into effective, practitioner-based professional development will be beneficial for school boards and administrators as they continue to seek ways to increase the achievement level of their students from poverty. At the collegiate level, school leadership and teacher preparation programs could potentially use these results to better prepare their graduates for working with and increasing the success of students from poverty.

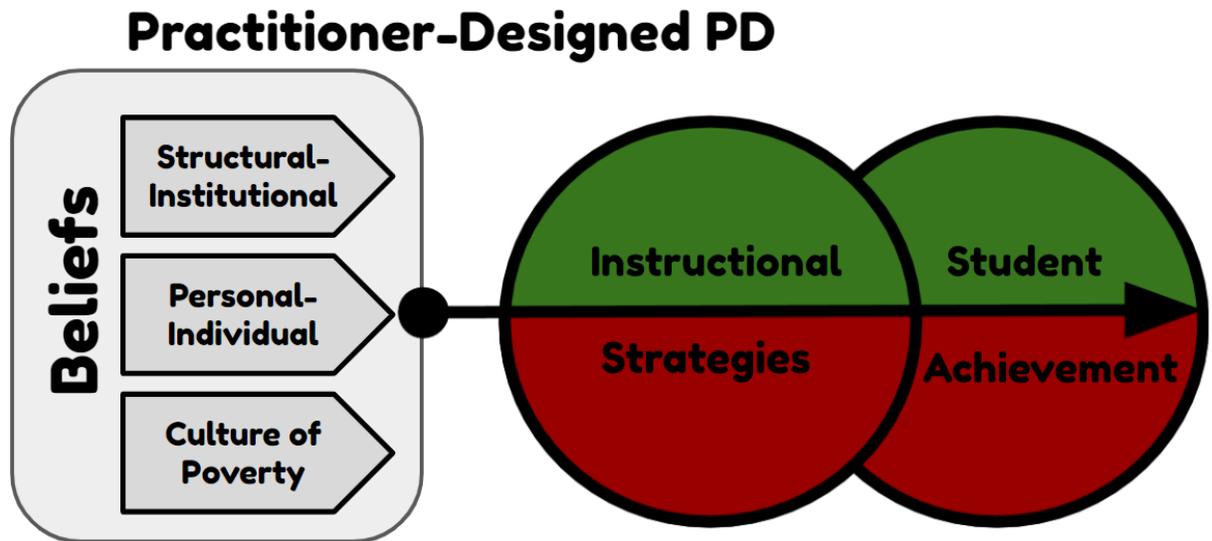
Conceptual Framework

Poverty “can have a rippling effect on a student’s well-being, including his or her educational performance and attainment” (Mullen, 2014, p. 158). For nearly two decades, NCLB and more recently ESSA mandates have put pressure on educators to close the achievement gap that exists for economically disadvantaged students. Educators have focused on improving instructional strategies to increase achievement, but seldom examined the importance of teacher beliefs in the classroom (Rubie-Davies et al., 2012). Ruby Payne’s training only offered teachers one perspective to explain poverty (Gorski, 2018).

Teachers’ beliefs about students impact and predict student achievement (Archambault, Janosz, & Chouinard, 2012; Bomer, Dworin, May, & Semingson, 2008; Budge & Parrett, 2018; Dell’Angelo, 2016; Gorski, 2008). Helping teachers explore what shapes their beliefs about students in poverty may impact the strategies they choose to implement in the classroom (Gorski, 2018; Rubie-Davies et al., 2012). Implementing effective instructional strategies such as holding high expectations and building relationships with students will yield an increase in achievement (Budge & Parret, 2018; Gorski, 2008; Jensen, 2009).

The research questions of this study combine the following concepts: practitioner-designed professional development; teacher beliefs; instructional strategies; and increased student achievement. According to Miles, Huberman, and Saldana (2019), a conceptual framework is a map of a researcher’s work that becomes a template for data collection and analysis. Figure 1 displays the connections among the concepts of this study.

Figure 1. Conceptual framework for practitioner-designed professional development impacting teacher beliefs.



Note. PD represents professional development.

Description of Terms

1. No Child Left Behind Act (NCLB) – enacted in 2002 with the major focus being to close student achievement gaps by providing all children with a fair, equal, and significant opportunity to obtain a high-quality education. The act required states to develop assessments in basic skills and to administer these assessments to all students at select grade levels to receive federal education funding.
2. Every Student Succeeds Act (ESSA) – an education law signed on December 10, 2015 by President Obama as a reauthorization of the Elementary and Secondary Education Act (ESEA). ESSA went into effect in 2017, with the identification of schools for support and improvement beginning during the 2018-19 school year. The enactment of ESSA was intended to provide relief from the prescriptive requirements of NCLB.

3. Poverty – living without the basic necessities of life – food, clothing, or housing. For school-age children, the federal free and reduced-price lunch program is frequently used as a proxy indicator of poverty (Burney & Beilke, 2008).
4. Economically disadvantaged – for the purpose of this study, economically disadvantaged students will be defined as those who qualify for free or reduced-price lunch, corresponding to the subgroup title used in state reporting.
5. Subgroup – NCLB named specific student subgroups to be monitored for academic achievement. ESSA maintains the practice of monitoring the performance of student subgroups.
6. Instructional strategies – techniques that are implemented by teachers to increase student achievement and to help students accomplish learning objectives (Marzano & Pickering, 2001).
7. Professional development – the process and activities designed to enhance the knowledge, skills, and attitudes of educators so that they might increase learning outcomes among their students (Guskey, 2000).
8. Socioeconomic status - one’s relative standing with regard to income, education, employment, health, and access to resources (Burney and Beilke, 2008).
9. High achievement - a level of performance that is higher than one would expect for students of the same age, grade, or experience (Burney and Beilke, 2008).

Delimitations

Researchers use delimitations “to narrow the scope of a study” (Creswell, 2003, p. 148). This study examines the implementation of practitioner-designed professional development in one Southwest Virginia school division. The sample population is comprised of elementary

teachers who are new to the division. A delimitation of the study, then, is the choice to conduct the study with new elementary teachers one division in Southwest Virginia. Since other counties and states were not studied, the results cannot be generalized to other locations nor to other populations. While no claim of generalizability of this study should be assumed due to its setting and sample population, practitioners may determine for themselves if the learning experiences and results described here have the potential for transferability to their settings.

Potential Limitations of the Study

Researchers provide limitations to identify potential weaknesses of a study, to place boundaries on the investigation, and sometimes to point to directions for future research (Creswell, 2003). Rossman and Rallis (2012) asserted that limitations may be weaknesses of a study that arise from its research design and methodology. A potential limitation of this study is the possibility of researcher bias impacting the study. I serve as the Director of Elementary Education for Montgomery County Public Schools. I will train the professional development design team using research from my review of the literature. The study sample may be limited by the willingness of respondents to participate in the study. Data will be collected in the form of survey responses, interviews, and analysis of teacher documents and may be limited by the participants' honesty and willingness to share their true beliefs.

McMillan and Wergin (2010) asserted:

Qualitative researchers do not believe that bias is always a problem and must be controlled at all costs; the position, rather, is that bias reflects ways in which people make meaning of the world and thus it must simply be acknowledged, allowing room for others to make meaning differently. (p. 91)

By first acknowledging the limitations, Rossman and Rallis (2012) suggested that the researcher encourages the reader to judge the results of the study with the limitations in mind.

Chapter 2

Literature Review

The following review addresses the literature on teaching students in poverty. I have examined sources related to teachers' beliefs and perceptions about students living in poverty. The review describes the literature investigating how teacher beliefs impact student achievement. I have also reviewed the literature relating to instructional strategies that help students from poverty succeed academically, and the literature examining the characteristics of effective teacher professional development. This review will make it possible to build training that changes teachers' beliefs and helps them learn strategies that work to increase the achievement of students in poverty. The impact of poverty on student achievement is also addressed. The literature review closes with a synthesis of research findings described in the literature relating to beliefs, instructional strategies, and characteristics of effective teacher professional development.

Search Procedures for Identifying Literature

The process for identifying literature to review involved multiple search procedures. I scanned numerous studies, books, and articles pertaining to teacher beliefs about children in poverty, effective professional development, and instructional strategies that work well for impoverished students. An initial search of the key term *effective professional development for teachers*, conducted using Education Research Complete from EBSCOHost, yielded 237 full-text, scholarly peer-reviewed journal articles. Adding *characteristics* as a field and applying related words yielded 23 additional results. I then conducted a search of the same terms in ERIC from EBSCOHost which yielded 35 results. Next, a search of the terms *instructional strategies* combined with *students in poverty* using the ERIC database from EBSCOHost yielded 23 full-text, scholarly peer-reviewed journal articles. Another search using the terms *impact of poverty*

combined with *student achievement* and applying related words, conducted using Education Research Complete from EBSCOHost, yielded 31 full text, scholarly peer-reviewed journal articles.

As I began the literature review, common themes, patterns, dissenting views, and resource-rich texts guided my consideration of what to include in the evaluation. Practitioner literature describing work in the United States was also included in the review. Educators Ruby Payne and Eric Jensen have been associated with improving achievement for students in poverty for over two decades and are familiar due to their commercial professional development programs; therefore, their work defined the starting point for my literature review. Payne (2005) explained the culture of poverty and the hidden rules of the middle class in *A Framework for Understanding Poverty*. Similarly, Jensen (2009) wrote about how chronic exposure to poverty can result in detrimental changes to the brain in *Teaching with Poverty in Mind*.

My analysis of sources from Gorski's 2008 article revealed widespread disagreement with Payne's and Jensen's work. A review of the most current literature revealed that researchers tended to warn against stereotyping, which leads to a deficit mindset, while also supporting some of Payne's work regarding effective instructional strategies (Budge & Parrett, 2018). These studies helped to define the search timeframe and led to identifying other key studies. Based on the work of salient figures such as Payne, Jensen, and Gorski, and of more current sources including Budge and Parrett, I identified a search timeframe of 1995–2018. I also reviewed works related to the topics of poverty, professional development, and effective instructional strategies that were repeatedly cited by other researchers. I cited 16 sources referenced by Budge and Parrett (2018), 8 authors cited by Jensen (2009), and 16 sources used by Magee (2005).

Beliefs Related to Students Who Live in Poverty

This section of the literature review addresses the following questions: 1) What do teachers believe about students who live in poverty? and 2) How do teacher perceptions and/or beliefs impact the achievement of students who live in poverty? Dissenting opinions exist regarding the culture of poverty; however, there is agreement that poverty has an adverse impact on student achievement. Eric Jensen (2009) proposed that teaching students from poverty is the primary challenge for teachers and suggested that educators should address this issue by changing the school culture from pity to empathy. The ways teachers think about barriers to student learning are strong predictors of academic achievement (Dell'Angelo, 2016; Gorski, 2018; Jensen, 2009). Jensen (2009) further explained that a common mentality of sympathy develops that leads to lowered expectations and a "bless their hearts" mentality (p. 160).

Payne (2005) asserted that understanding the culture of poverty is key to working with poor students. According to Payne, service providers such as teachers can more effectively work with students in poverty after gaining knowledge of the culture of poverty and the hidden rules of economic class. Hidden rules are described as "the unspoken cues and habits of a group" (Payne, 2005, p. 37). Payne's work identified the hidden rules that have the largest impact on student success. According to Payne, people make assessments of others' capabilities based on their understanding of the hidden rules of an organization. Payne encouraged educators to teach the hidden rules of middle class that impact school and student achievement. Schlechty's (2002) work showed some connection to Payne's studies regarding hidden rules and relationships; he asserted that, "Part of the task of schooling is to introduce students to the culture in which they will function and provide them with the tools they will need to negotiate that culture in ways that benefit themselves and others" (p. xxix).

Gorski (2008) strongly disagreed, flatly stating, “There is no such thing as a culture of poverty. Differences in values and behaviors among poor people are just as great as those between poor and wealthy people” (para.8). He maintained that the culture of poverty is a myth that distracts educators from the real culture of classism that leads teachers to hold lower expectations for poor students. This deficit theory is shaped by educators defining their students in terms of weaknesses rather than strengths. Gorski suggested that when educators believe that impoverished people do not value education, they will not take responsibility to address the educational inequalities that exist (2008). The achievement gap should be seen as an opportunity gap for educating students in poverty, and teachers must stop trying to “fix” poor students. Teachers should “commit to working with, rather than on, families in poverty” (Gorski, 2013, p. 132).

Parrett and Budge (2009) agreed with Gorski, maintaining that “too many educators continue to believe that people who live in poverty share a common set of beliefs, values, attitudes, and behaviors such as a poor work ethic” and apathy toward school (p. 26). While educators need to know and understand their students, formulating stereotypes about them and their families leads to an inability to develop appropriate relationships. Bomer, Dworin, May, and Semingson (2008) also questioned Payne’s findings, writing that:

Our critical analysis of Payne’s characterizations of people living in poverty indicates that her work represents a classic example of what has been identified as deficit thinking. We found that her truth claims, offered without any supporting evidence, are contradicted by anthropological, sociological and other research on poverty. We have demonstrated through our analysis that teachers may be misinformed by Payne’s claims. As a consequence of low teacher expectations, poor students are more likely to be in lower

tracks or lower ability groups and their educational experience more often dominated by rote drill and practice. (p. 2498)

It is important to understand these conflicting theories of poverty because educators' beliefs about poverty impact the strategies they implement in their classrooms and schools. Budge and Parrett suggested that there are three common perspectives used to explain poverty (2018). The first is characterized by the personal-individual ideology that equates poverty with personal character and poor choices, as well as a "lack of genetic qualities such as intelligence" (Bradshaw, 2006, p. 6). The second perspective is the culture of poverty theory. Budge and Parrett (2018) proposed that the culture of poverty perspective is connected to the personal-individual theory described by Jordan (2004), "in that people in poverty are thought to create, sustain, and transmit a culture that reinforces their social, moral, behavioral, and intellectual deficiencies" (p. 19). Bradshaw (2006) suggested that individuals may not be to blame but rather are victims of their culture. This third perspective that Budge and Parrett outlined is the structural-institutional perspective (2018). Bradshaw (2006) described this perspective as consisting of confines placed on individuals by limited opportunities and resources imposed by the economic, political, and social system in which they live. It is critical for educators to examine their beliefs because of the impact of their perceptions on student success.

It is important that education leaders understand how students may internalize teachers' beliefs and perceptions. While low-income children may believe that people are poor because of a lack of material resources and that this deficit causes a barrier to school achievement, they also believe that people who are poor are less competent than non-poor people (Heberle, Kaplan-Levy, Neuspiel, & Carter, 2018). Table 3 provides a comprehensive listing of the sources reviewed regarding teacher beliefs about students living in poverty.

Table 3

A Review of Sources on Teacher Beliefs About Students Living in Poverty (Wickham, 2019)

Author and Year	Methods/Data Sources	Perspective on Poverty	Findings	Pedagogical Implications
Jensen (2009)	Case study/ researcher field notes	Chronic exposure to poverty causes the brain to change	The brain can adapt and change	Emphasize empathy, not pity
		Several key factors impact the success of students in poverty	Feelings of pity for students lead to lowered expectations	Promote a school culture of caring and respect
Payne (2005)	Action research/ researcher notes	Generational poverty can create its own culture with hidden rules	Understanding the culture of poverty is key to working with impoverished students	Teach students the rules that will make them successful at school and work
		Many people stay in poverty because they do not know their choices	Relationships are key motivators for students in poverty	Build relationships and identify role models
		Poverty is the extent to which someone does without resources	Emotional resources determine achievement	Analyze students' resources before seeking solutions and offering advice
		Learning hidden middle-class rules will make students successful at school or work	People judge others' abilities based upon their understanding of the hidden rules of the organization	Teach students hidden rules of the middle class
Schlechty (2002)	Action research/ researcher notes and interview transcriptions	Educators should focus on what they can control	Introduce students to the culture in which they will function and provide them with the tools they need to be successful	Design classroom activities to engage students in schoolwork

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Author and Year	Methods/Data Sources	Perspective on Poverty	Findings	Pedagogical Implications
		Teachers cannot choose the students they have or the parents of their students	Improving student schoolwork will increase student achievement	Connect the work students are doing to a product that is meaningful to them
Gorski (2008)	Action research/ descriptive narrative records	<p>Culture of classism results in poor students attending schools with less funding, lower teacher salaries, and more limited technology access than their wealthier peers</p> <p>There is no culture of poverty</p> <p>Culture of poverty is deficit thinking which causes educators to focus on students' weaknesses instead of strengths</p>	<p>False culture-of-poverty thinking distracts educators from the real culture of classism</p> <p>Deficit thinking leads to stereotyping poor people and focusing on students' weaknesses</p> <p>Differences in values and behaviors exist among poor people</p>	<p>Teachers should hold high expectations for learning for all students</p> <p>Educators should reject deficit theory</p> <p>Educators should help colleagues unlearn misperceptions about poverty</p>
Gorski (2008)	Case study/ interview transcriptions	<p>Some policies and practices manufacture low achievement for students in poverty</p> <p>Students in poverty must overcome economic and educational inequities to learn</p> <p>Poor people disproportionately suffer the impacts of social ills</p> <p>Deficit theory suggests people are poor due to their own deficiencies</p>	<p>Many educators believe that people who live in poverty share a common set of beliefs, values, attitudes, and behaviors such as poor work ethic and apathy toward school</p> <p>Formulating stereotypes about students and their parents leads to an inability to develop appropriate relationships</p> <p>PD is necessary for making data-based decisions, establishing measurable goals,</p>	<p>Confront policies and practices that reinforce low expectations such as retention, tracking, and inappropriately assigning students in poverty to special education</p> <p>Foster caring relationships</p> <p>Use data to guide instructional decisions, targeted interventions, and to develop literacy skills</p>

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Author and Year	Methods/Data Sources	Perspective on Poverty	Findings	Pedagogical Implications
			and developing aggressive timelines to achieve them	Extend learning time for students who need it
			Underachieving students living in poverty require additional instructional time to catch up to higher-achieving peers	
Bomer, Dworin, May, & Semingson (2008)	Qualitative research study/ test results	Payne's characterizations of people living in poverty represent deficit thinking Payne's claims are offered without supporting evidence and are contradicted by anthropological, sociological, and other lines of research on poverty	Payne's representations of the daily lives of poor people emphasize depravity or criminality Teachers can advocate for the basic needs of their students	Deficit thinking leads to lower teacher expectations which result in lower student achievement Poor students are more likely to be in lower tracks or lower ability grownups
Budge & Parrett (2018)	Case study/ researcher field notes and video transcriptions	Personal-individual ideology perspective of poverty maintains that people are poor because of personal character and poor choices Culture of poverty theory suggests that people living in poverty share common beliefs and hidden rules Structural-institutional perspective maintains that poverty is caused by limited opportunities and resources	Teachers' perspectives on explaining poverty impact their approach to students in the classroom Successful high poverty schools implement common instructional strategies Educators need more than moral conviction to increase the achievement of poor students	Teachers must reflect on their own beliefs and values to determine what shapes their perspectives Focus on disrupting poverty through relationships, high expectations for all students, equity, and understanding that poverty is caused by limited opportunities and resources

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Author and Year	Methods/Data Sources	Perspective on Poverty	Findings	Pedagogical Implications
				Teachers must have professional accountability for learning
Gorski (2018)	Meta-analysis/ researcher notes	<p>Deficit ideology is the belief that poverty is the result of ethical, intellectual, and other shortcomings among people in poverty</p> <p>Grit ideology maintains that some people in poverty have personal attributes that allow them to overcome adversity</p> <p>Structural ideology is the belief that educational outcome gaps are the result of structural barriers such as the unfair distribution of opportunity and access</p>	<p>Deficit ideology leads to assigning negative attributes to students experiencing poverty</p> <p>Grit ideology leads to the idea that children in poverty should be fixed</p> <p>Structural ideology leads educators to reflect on and work to address barriers for families in poverty without stereotyping</p>	<p>Reject deficit ideology</p> <p>Reject grit ideology</p> <p>Embrace structural ideology</p>
Dell'Angelo (2016)	Multiple regression/ survey	<p>Poverty predicts student achievement</p> <p>Social constructivist perspective maintains that beliefs create reality between teachers' thoughts and their students' performance</p> <p>The way teachers perceive obstacles to learning impacts student achievement</p>	<p>The ways teachers think about barriers to learning are strong predictors of student achievement</p> <p>Student achievement is higher when teachers perceive fewer obstacles</p> <p>Teachers with an internal locus of control believe that they impact student achievement</p>	<p>Help teachers see the power of their perceptions</p> <p>Help teachers reframe how they think about students in poverty</p> <p>Help teachers develop an internal locus of control and take personal responsibility for their students' learning</p>

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Author and Year	Methods/Data Sources	Perspective on Poverty	Findings	Pedagogical Implications
Heberle, Kaplan-Levy, Neuspiel, & Carter (2018)	Thematic analysis/ interview transcriptions	Protestant work ethic leads to a belief that hard work produces positive outcomes	Low-income children believe people are poor because of a lack of material resources	Help young children develop more empathy (toward self and others) relating to poverty
		Attribution theory is concerned with individuals' causal reasoning about their own and others' behavior	Low-income children believe people who are poor are less competent than non-poor	Ensure educators are aware that young children hold some stereotypical beliefs about people in poverty
		External, uncontrollable attributions control early-school-age children's understanding of the causes and consequences of poverty	Low-income children believe that a lack of material resources is a barrier to school achievement for children in poverty	Implement strategies to help students develop resiliency

Note. PD represents professional development.

Instructional Strategies that Increase Achievement of Students in Poverty

This section of the literature review addresses the question, what are the most effective instructional strategies for improving the achievement of students who live in poverty?

Educational research has not reached a consensus on exactly which teacher characteristics enable educators to bring about increased student achievement (Budge & Parrett, 2018; Palardy & Rumburger, 2008). Jensen (2009) asserted that empathy and cultural knowledge are essential for teachers to be successful in increasing the achievement of impoverished students. He maintained that “students raised in poverty are especially subject to stressors that undermine school behavior and performance” (p. 27). To be successful with students from poverty, educators must understand that stress adversely affects cognition and can be debilitating for these students (Jensen, 2009).

In addition, educators must know their students. Relationship building is especially important for students in poverty (Budge & Parrett, 2018; Gorski, 2008; Hattie, 2009; Jensen, 2009; Mullen & Kealy, 2013; Payne, 2005, 2008). Harris wrote, “The relationships that teachers build with students form the single strongest access to student goals, socialization, motivation, and academic performance” (as cited in Jensen, 2009, p. 285). Jensen (2009) contended the following:

Strong, secure relationships help stabilize children's behavior and provide the core guidance needed to build lifelong social skills. Children who grow up with such relationships learn healthy, appropriate emotional responses to everyday situations. But children raised in poor households often fail to learn these responses, to the detriment of their school performance. For example, students with emotional dysregulation may get so easily frustrated that they give up on a task when success was just moments away. (p. 18)

Jensen (2009) maintained that the best way to deal with these deficits “is to first understand students' behavior and then to lay out clear expectations” (p. 18). Payne (2008) also indicated that a meaningful relationship must be present for substantial student learning to occur. She believed that building relationships of respect is a key intervention in raising achievement for low-income students and asserted that students from generational poverty need direct instruction to build cognitive tools necessary for learning. Relationships that motivate students must be established, and the hidden rules must be taught so that students can choose appropriate responses (Payne, 2008).

Understanding students' backgrounds and relationship building are important strategies for helping students from poverty achieve academic success. Budge and Parrett (2018) wrote the following:

There is no specialized set of instructional strategies designed specifically to meet the needs of students who live in poverty. Good teaching for all students is good teaching for students who live in poverty. Caring relationships with each student serve as the basis for understanding each child's unique assets and challenges. (p. 21)

They also asserted that, “The nature of the student-teacher relationship is fundamental to everything else that happens in our classroom” (p. 51). Hattie (2009) supported this belief as well and found a strong correlation between student-teacher relationships and student achievement. Teachers who implemented “person-centered” practice had fewer discipline problems in their classrooms and higher student achievement.

Schlechty (2002), who focused primarily on student engagement, also noted the importance of relationships in which a nurturing environment fosters mutual respect between educators and students. He explored the impact of instructional strategies on student learning,

posing the question, "What characteristics of schoolwork do students find engaging?" (Schlechty 2011, p. 51). He identified several characteristics of engaging student work, including product, performance, or exhibition; clear and compelling standards; protection from adverse consequences; affiliation or learning with others; affirmation of performance (the task matters to others); novelty and variety (the work is fun); choice; and authenticity (the work is of real interest to students).

Like Schlechty, Antonetti and Garver (2015) believed that student achievement will increase when teachers plan lessons that include engaging qualities. They proposed that strategies for improving achievement must focus on student learning. Antonetti and Garver wrote,

Teachers sometimes protect their most stressed students from tasks that require high levels of thinking. We call this the "bless their hearts" mentality. Ironically, the exact opposite would be beneficial to a chronically stressed learner. Providing a student with an emotionally safe activity that requires him or her to identify patterns, argue, and defend his or her thinking may actually provide a sense of cognitive control and a break from stress outside of the classroom. (p. 39)

The trite phrase "good instruction is good instruction" may be true for teaching all students. Bransford, Derry, Berliner, Hammerness, and LePage (2007) argued that teachers who succeed with students in poverty use teaching strategies and methods that are consistent with what research tells us about how people learn. They further contended that teachers' knowledge of child development and cultural backgrounds is imperative for them to be student-centered teachers. What research defines as best classroom practice for students in general is also what is

best practice for students in poverty (Antonetti & Garver, 2015; Bransford et al., 2007; Budge & Parrett, 2018).

Instructional strategies that help students make meaning of complex material are necessary for academic success. When students are taught mental models, they can create internal representations of information. Senge, Kleiner, Roberts, Ross, and Smith (1994) defined “mental models as the images, assumptions, and stories” that individuals carry in their minds about their world, institutions, others, and themselves (p. 235). Payne (2002) described mental models as the stories, metaphors, analogies, and two-dimensional drawings that help the mind hold abstract information. All contents can be taught through mental models, and when students are taught these mental models, learning increases.

Payne (2003) also emphasized the importance of systematic interventions in her research. She described an approach that includes reasonable expectations, growth assessments, benchmarks to indicate progress, and modification of interventions. When researching the common traits of six high-performing/high-poverty schools, Parrett and Budge (2009) identified interventions as a success strategy. Data from assessments guide the implementation of interventions. Bransford et al. (2007) proposed that teachers must utilize learning assessments as an effective instructional strategy that both makes students’ thinking visible and guides further learning through feedback. Gamoran and Long (2007) found that NCLB requirements for evidence-based practice and intervention did little on their own to close achievement gaps, but that when these interventions are directed primarily toward schools serving high proportions of students from poverty, they may make a difference.

Believing that all students can learn and achieve at high levels is an instructional strategy that sets the tone and classroom climate for learners. Researchers agree that holding high

expectations for student work and curriculum is an instructional strategy that communicates what teachers believe about students and impacts student achievement (Bomer et al., 2008; Budge & Parrett, 2018; Gorski, 2008, 2018; Jensen, 2009). Gorski (2013) emphasized the importance of expectations and stated that when teachers believe that all their students are capable of reaching equal heights, their eyes are opened to the unique capabilities of each child as well as to their potential struggles. High expectations can impact students' future success in school. Budge and Parrett (2018) wrote, "What we believe about our students' potential influences both what we attend to and how we interpret events" (p. 77). Budge and Parrett (2009) explained that students can experience the effects of the self-fulfilling prophecies of their teachers' beliefs. Other researchers agree. This occurs "when an initially erroneous belief leads to its fulfillment" (Rubie-Davies, Hattie, & Hamilton, 2006, p. 430). When students in poverty are struggling in school, they may choose to internalize a teacher's belief in their potential as a way to protect themselves and their pride or to offset other risk factors in their lives (Gregory & Huang, 2013).

Having low expectations for students contributes to the achievement gap. Good and Nichols (2001) proposed that teachers can be reluctant to ask challenging questions of students for whom they hold low expectations for fear of embarrassing them. Also, they can be too quick to provide the answer or to call on another student without allowing these students to engage in a productive struggle to understand the content and make meaning. Fullan (1993a) maintained that teachers must be diligent in ensuring that no attitudes, beliefs, or practices prohibit students from access to knowledge.

According to Budge and Parrett (2018), students from poverty usually come to school with fewer readiness-to-learn skills than other children who have had more experiences. As a result, the achievement gap usually widens as students go through school. Budge and Parrett

(2018) asserted that children of poverty often experience failure and must be taught that making mistakes is part of the learning process. Fostering a growth mindset, as opposed to a fixed mindset, by encouraging effective efforts and providing specific feedback can help students understand that making mistakes is part of the learning journey. Johnston (2012) explained that providing specific feedback that recognizes effort is critical to increasing the feedback's value to students and its impact on their achievement. Feedback must be process-oriented, not person-oriented, to avoid making it seem as if the praise is about pleasing the teacher. Similarly, Dweck (1999) proposed that educators should "teach students to focus on their potential to learn"; they should instruct students "to value challenge and learning rather than looking smart;" and should teach students to "concentrate on effort and learning processes in the face of obstacles" (p. 4).

She wrote,

Students who value learning and effort know how to make and sustain a commitment to valued goals. Unlike some of their peers, they are not afraid to work hard; they know that meaningful tasks involve setbacks; and they know how to bounce back from failure. (p.

5)

Conversely, Dweck maintained that when praise is person-centered and not process- or product-oriented, students receive the message that intelligence is fixed and that poor performance means they are dumb.

Understanding students in poverty and holding high expectations for their work is crucial to their success (Gorski, 2008; Jensen, 2009). Marzano, Pickering, and Polluck (2001) confirmed that reinforcing effort and holding high expectations are high-yield strategies for increasing student achievement. Additionally, they emphasized these specific strategies: identifying similarities and differences, modeling, and clearly communicating and assessing mastery

objectives. Similarly, Budge and Parrett (2018) proposed that educators should differentiate, scaffold, and model, but they should not “dumb down” (p. 116). Educators should ensure that expectations are clear and consistent and should establish routines and structures for students. Budge and Parrett (2018) wrote, “For students who live in poverty, a teacher’s expectations can make or break them” (p. 94). Thus, clearly communicating expectations, feedback, routines, and procedures are key to students’ success. Table 4 indicates sources related to effective instructional strategies that increase achievement for students who live in poverty.

Table 4

Instructional Strategies that Increase Impoverished Students' Achievement (Wickham, 2019)

Author and Year	Methods/Data Sources	Findings	Pedagogical Implications
Jensen (2009)	Case study/ researcher field notes	Stress adversely affects cognition	Use data to guide instruction
		Stressors undermine school behavior and performance	Understand students' behavior, lay out clear expectations, and build relationships
		Many teachers cannot understand why poor students behave the way they do	Embody respect and embed modeling and instruction of social skills into the school culture
Payne (2005)	Action research/ researcher notes	Poor students' use of casual register impacts achievement	Teach students vocabulary and story structure
		Students from poverty focus on the short term	Teach students how to predict and identify cause and effect
		Understanding the culture of poverty is key to working with impoverished students	Use data to guide instruction and specific interventions
		Children from poverty do not understand abstract concepts and have limited vocabulary	Teach mental models for abstract information
Payne (2008)	Action research/ researcher notes	Significant relationships must be present for major student learning to occur	Relationships that motivate students must be established first
		Students from poverty have less background knowledge and fewer family supports	Direct instruction is needed to build cognitive tools necessary for learning

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Author and year	Methods/Data Sources	Findings	Pedagogical Implications
Budge & Parrett (2018)	Case study/ researcher field notes and video transcriptions	Good teaching for all students is good teaching for students who live in poverty Specific principles in classroom culture are needed to help students from poverty succeed	There is no specialized set of instructional strategies designed to specifically meet only the needs of students who live in poverty Student-teacher relationships are fundamental to everything else that happens in classrooms
Hattie (2009)	Meta-analysis/research studies	Strong correlation between student-teacher relationships and student achievement	Student-centered practice yields fewer classroom discipline problems and higher student achievement
Schlechty (2002)	Action research/ researcher notes and interview transcriptions	Quality work increases student engagement A nurturing environment fosters mutual respect between educators and students	Redesign classroom activity so that students are highly engaged in schoolwork Build relationships with students
Schlechty (2011)	Action research/ interview transcriptions	Identified characteristics of engaging student work	Consider what makes student work engaging: product, performance, or exhibition; clear and compelling standards; protection from adverse consequences; affiliation or learning with others; affirmation of performance; novelty and variety; choice; and authenticity
Mullen & Kealy (2013)	Document analysis/ matrix categorizing documents	Disproportionate number of poor students receive special education services Teachers can advocate for students experiencing poverty Teachers can learn about their students' cultures	Socially responsible teachers and principals should serve as role models for addressing inequality Build relationships with students and parents When students are learning new things, provide support and a collaborative culture

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Author and Year	Methods/Data Sources	Findings	Pedagogical Implications
Gorski (2018)	Meta-analysis/ researcher notes	<p>Educators must have the ability to recognize biases in the classroom, respond to them, remedy them, and create a bias-free learning environment</p> <p>What teachers believe about people experiencing poverty informs how they teach and interact with students</p> <p>An achievement gap exists due to inequities in distributions of access and opportunity, not deficiencies in mindsets, cultures, or grittiness of people experiencing poverty</p> <p>Strategies for creating equitable classrooms must be based on evidence of what works</p>	<p>Ensure curriculum contains stories about working-class and poor families</p> <p>Ensure students experiencing poverty have certified, experienced teachers who offer student-centered, rigorous learning opportunities</p> <p>Ensure that all students have access to movement, music, art, and theater opportunities</p> <p>Use data to inform instruction</p> <p>Prioritize literacy instruction</p> <p>Make real-world connections for students experiencing poverty</p>
Antonetti & Garver (2015)	Case study/ interview transcriptions	<p>Strategies for improving achievement must focus on student learning</p> <p>Rigorous work in an emotionally safe environment may engage students</p> <p>Teachers make student work more engaging through the planning process</p>	<p>Shift PD outcomes from what teachers will do to what students will learn</p> <p>Students in poverty must have access to rigorous curriculum</p> <p>Plan lessons with engaging qualities</p>
Marzano, Pickering, & Polluck (2001)	Meta-analysis/coding instrument	Some research-based teaching strategies yield a higher effect on student learning than others	Plan and implement lessons that include research-based strategies that have a positive effect on student learning

Note. PD represents professional development.

Characteristics of Effective Teacher Professional Development

This section of the literature review addresses the following question: What are the characteristics of effective professional development for teachers? The literature I reviewed regarding professional development and its impact on teacher and student learning was inconclusive. Researchers and practitioners have worked to identify characteristics of high-quality professional development and to increase the potential impact on teacher practice and student learning (Guskey, 2009; Lieberman, 1995). According to Guskey (2000), multiple studies have been conducted to determine the impact of professional development but with little success. In a more recent study (Gates Foundation, 2014), stakeholders reported that few decisions about offering professional development are made based on rigorous evidence of effectiveness. A consensus has consistently emerged regarding the elements needed for effective, next-generation professional development; it must be relevant, practical, hands-on, and sustained over time. Having key focus areas, including improving collaborative and personalized models, will enhance professional development (Gates Foundation, 2014). Successful professional development must focus on subject matter that impacts teachers' emotions and brings impetus for change.

Professional development is key to helping teachers learn and achieve success with their students (Guskey, 2000). However, Sparks (2002) described most teachers' professional development opportunities as "woefully inadequate" to help them address the needs of students today (pp. 1-1). Guskey concurred, bemoaning that some educators view their professional development as a waste of time, participating only because their contract requires them to do so. In Guskey's study, teachers reported that the training they received had little impact on their daily experience in the classroom. Guskey attributed the teachers' opinions of the training to

experiences that were meaningless, wasteful, unplanned, and based on educational fads and trends rather than research.

The single most influential school factor affecting student achievement gains is the teacher (Grant, Stronge, & Popp, 2008). Bransford et al. (2007) contended that a central part of being a professional teacher is holding a commitment to helping all students succeed. Educators who have made such commitments have demonstrated that it is indeed possible to do so.

Bransford et al. (2007) wrote the following:

Students in today's classrooms pose a wide range of diverse learning needs that teachers must be prepared to address. Part of this process is learning how to understand and reach out to children who have a wide range of life experiences, behaviors, and beliefs about themselves and what school means to them. When teachers develop a "sociocultural consciousness," they understand that individuals' worldviews are not universal but are greatly influenced by their life experiences, gender, race, ethnicity, and social-class background (Banks, 1998; Villegas and Lucas, 2002). This kind of awareness helps them better understand how their interactions with their students are influenced by their social and cultural location and helps them develop attitudes and expectations—as well as knowledge of how to incorporate the cultures and experiences of their students into their teaching—that support learning. (p. 36)

Bennett (2008) agreed and proposed that public school educators, rather than avoiding this major issue, should study poverty and its impact on the school and community, thus changing their thinking and prompting them to action. Lindsey, Karns, and Myatt (2010) concurred, asserting that poverty should be a visible topic in schools. They also wrote, "Considering socioeconomic issues separate from other demographic groupings provides

educators with the opportunity to accurately assess needs and develop programs” (p. 15). The challenge facing leaders is how to tackle this study of poverty within the public school setting and in accordance with a calendar that has little time for such study.

Guskey (2000) defined professional development as the process and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students. If educators are going to bring about the changes that must take place to close the achievement gap for students of poverty, it is clear that they must be given the tools necessary to do so. Developing teachers’ abilities is identified as an essential process for creating and sustaining academic success (Jacobson, 2011). Reeves (2003) asserted that effective teachers and teaching strategies, rather than programs, obtain results. Appropriate training can provide the avenue for developing effective educators and growing their skillsets.

Teacher development activities that will improve student learning must occur during the school day (Croft et al., 2010; Guskey, 2000; Morewood & Bean, 2007). Corcoran (1995) acknowledged that many traditional approaches to professional development have little impact on teacher practice because they are too isolated from the classroom. Likewise, Lieberman (1995) described most teacher staff development as disconnected from the classroom with little attention paid to changing practice or continuing learning.

Effective professional development must include support mechanisms and must allow for learning to take place over time. Fullan (1993b) suggested that people change their practice after they have developed mastery, and that mastery takes time:

People behave their way into new visions and ideas, not just think their way into them.

Mastery is obviously necessary for effectiveness, but it is also a means for achieving deeper understanding. New mind-sets arise from mastery as much as the reverse.

It has long been known that expertise is central to successful change, so it is surprising how little attention we pay to it beyond one-shot workshops and disconnected training.

(p. 13)

Therefore, professional development that takes place over time is needed to develop mastery and promote change in skills and habits.

“In-school learning” is connected to sustained strategies intended to change teaching practice and school culture (Lieberman, 1995). DuFour (2004) confirmed Lieberman’s research, writing, “The best staff development is in the workplace, not in a workshop. Job-embedded staff development, by definition, will move the focus of professional learning to the school site” (p. 1). DuFour warned, though, “It is critical, however, that leaders understand that simply shifting to site-based staff development does not ensure improved learning for either adults or students” (p. 1). Croft, Coggshall, Dolan, Powers, and Killion (2010) also proposed that staff development should be integrated into the daily activities of the school and connected to the needs of educators. In addition, for professional development to be effective, teachers must be supported as they implement new learning.

Adult learners are not the same as children. Beavers (2009) suggested that adult learners resist new knowledge that contrasts with their desired direction for learning, and as a result, effective professional development must address teachers’ beliefs and values. Adult learners are problem-solvers. Teacher professional development that provides the opportunity for collaboration and dialogue with peers about complex issues makes the learning experience more valuable (Beavers, 2009). Even with optimal teacher professional development, change can be difficult. Schlechty (2002) defined the attributes necessary for a group to be able to bring about change. These attributes include people with power in the organization; individuals who are

creative and competent in the areas of focus for the change; strong leaders; and those who will be impacted by the change. Therefore, defining the correct group to design and plan professional development and the correct target audience for implementing the training will be key factors in ensuring successful outcomes for a professional development plan. Table 5 indicates sources related to effective teacher professional development.

Table 5

Effective Teacher Professional Development Related to Impoverished Students' Achievement (Wickham, 2019)

Author and Year	Methods/Data Sources	Findings	Characteristics of Effective PD
Lieberman (1995)	Action Research/ researcher notes	Professional learning must move away from the traditional in-service model	<p>Teacher PD is limited by lack of knowledge about how teachers learn; PD should address the needs of adult learners</p> <p>In-school learning should be considered over direct instruction from outsiders at workshops</p> <p>PD is an integral part of the school, not an add-on</p> <p>Innovative methods for allowing teachers to access PD should be considered</p>
Moore, Kochan, Kraska, & Reames (2011)	Statistical/ surveys	<p>Teachers must be committed to becoming a community of lifelong learners</p> <p>PD is most effective when strong leaders develop a school climate in which continual learning is considered vital</p> <p>PD is the means to developing individuals and organizations and bringing about educational improvement</p>	<p>PD is most effective when it takes place in effective professional learning communities</p> <p>Principals must recognize the value of high-quality PD and encourage and facilitate teacher participation</p> <p>Principals must communicate the benefits of PD to key stakeholders</p>
Parrett & Budge (2009)	Case study/ interview transcriptions	High-performing schools require making significant investments in people	Time used for other meetings can be re-purposed to train teachers

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Author and Year	Methods/Data Sources	Findings	Characteristics of Effective PD
		Schools must reorganize time to better support professional learning	<p>Reorganize schedules to provide common planning time for teachers</p> <p>Use instructional coaches to provide timely support during collaborative planning sessions</p>
Grant, Stronge, & Popp (2008)	Case studies/ interview transcriptions	<p>A relationship exists between continuing teacher PD and student achievement</p> <p>The single most influential school factor affecting student achievement is the teacher</p> <p>Teacher training in using instructional materials, content knowledge, how to teach content, and how to teach diverse students impacts student performance</p> <p>Students of teachers who are new to the profession do not perform as well as students of veteran teachers</p> <p>Poor students are more likely to have a teacher with less than three years of experience than wealthier peers</p> <p>Effective teachers engage students in learning</p>	<p>PD must be ongoing</p> <p>PD that addresses their background improves achievement for students from poverty</p> <p>Effective teacher PD addresses how to use instructional materials, how to teach content, how to teach diverse students, how to engage students, how to build relationships, and specific content</p> <p>Effective PD helps teachers better understand the background of students from poverty</p> <p>Effective PD helps teachers engage students from poverty</p>
Guskey (2000)	Action research/ researcher notes	<p>Teachers must be learning all the time in order for them to successfully teach all students</p> <p>Many staff development options do not improve student learning</p>	<p>PD is intentional, ongoing, and systemic</p> <p>PD has clear goals and purposes</p>

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Author and Year	Methods/Data Sources	Findings	Characteristics of Effective PD
		<p>Staff development that will improve student learning must occur during the school day among teams of teachers committed to high levels of learning for all students</p> <p>Informal teacher PD including joint lesson planning, discussions of student data, and curriculum work is more effective than many formal workshops</p> <p>The knowledge base in every subject area is growing, and educators must keep abreast of this expanding knowledge to be effective</p> <p>Evaluating PD is a key factor in determining its effectiveness to guide reform efforts</p> <p>PD includes activities and processes designed to enhance the knowledge, skills, and attitudes of teachers so that they can improve student achievement</p>	<p>PD goals should be aligned with both individual and organizational improvement</p> <p>PD includes options for teachers such as action research, learning with peers, observation, and training</p> <p>Time for PD should be scheduled during teachers' workday</p> <p>PD should be evaluated for effectiveness and impact on student learning</p>
Croft, Coggshall, Dolan, Powers, & Killion (2010)	Research brief/ researcher notes	<p>Job-embedded PD is teacher learning that occurs during day-to-day teaching practice, is designed to enhance content-specific instructional practices, and has the intent of improving student achievement</p> <p>Most job-embedded PD occurs in schools because teachers learn during the day</p> <p>PD designs can include mentoring, coaching, lesson study, action research, peer observation, examining student work, and coaching</p>	<p>Time must be set aside for PD during the daily schedule and school year calendar</p> <p>Teachers should be supported with options for PD during the workday</p> <p>Effective teacher PD is designed specifically for the adult learner</p> <p>Effective PD is ongoing with specific goals</p>

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Author and Year	Methods/Data Sources	Findings	Characteristics of Effective PD
		<p>Research-based knowledge about how adults learn should inform the design of PD</p> <p>Teacher licensure and re-licensure requirements should be aligned with high-quality PD</p> <p>Administrators must establish school cultures in which continued learning is considered an essential aspect of professional practice</p> <p>Learning to be an effective teacher requires constant study, taking place both in academic settings and through guided, on-the-job practice</p>	<p>Effective PD is part of school culture</p> <p>Effective PD is supported by policy</p>
Garet, Porter, Desimone, Birman, & Yoon (2001)	Regression analysis/surveys	<p>Little systematic research exists on the effects of PD on improvements in teaching or on student achievement</p> <p>PD that focuses on content and provides opportunities for active learning and coherence is more likely to produce enhanced knowledge and skills</p> <p>Sustained and intensive PD is more likely to have an impact than shorter PD activities</p> <p>Cost is a barrier to providing quality PD</p>	<p>Teacher PD focuses on content knowledge</p> <p>PD should provide opportunities for active learning</p> <p>PD should be connected to other school activities and goals</p> <p>PD should be sustained and goal-oriented</p>
Guskey (2009)	Meta-analysis/researcher notes	<p>PD is key to teacher growth and development</p> <p>Little scientifically-valid research exists on PD characteristics that improve student learning</p>	<p>PD must be focused, purposeful, structured, and organized</p> <p>Successful PD relates to context</p>

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Author and Year	Methods/Data Sources	Findings	Characteristics of Effective PD
		<p>No one approach or method works best for PD</p> <p>More time in PD does not equate to better PD</p>	
Moorewood & Bean (2007)	Case study/ interview transcriptions	<p>PD can be defined in terms of structure (type, duration, and participation) and design (active learning, coherence to other school goals, and content focus)</p> <p>Teachers respond positively to PD that is available during the workday</p>	<p>Collaboration with peers through active learning makes PD more effective</p> <p>PD is valuable when it aligns with district, state, and personal goals</p> <p>PD should be offered during teachers' workday</p>
Beavers (2009)	Literature review/ researcher notes	<p>Adult learners are problem-solvers</p> <p>Adult learners resist new learning that conflicts with their desired direction for learning</p> <p>PD must address teachers' beliefs and values</p>	<p>Collaboration and dialogue with peers about problem-solving make PD more effective</p> <p>PD should support different learning styles</p> <p>PD must recognize that teachers have different needs</p>

Note. PD represents professional development.

Poverty and Student Achievement

Many researchers have studied poverty and its impact on how students perform in school. It is evident that aspects of poverty are negatively related to student achievement (Bourke, 1998; Fisher & Adler, 1999; Schellenberg, 1998). Bourke noted in his study that poverty was more closely related to variance in reading scores than were ethnicity variables. Poverty has had a decisive impact on academic achievement, more than can be explained by any other variable. Researchers continue to assert that educator beliefs and perceptions about students in poverty meaningfully influence student achievement (Budge & Parrett, 2018). Some educators have assumed poor students to be incapable of learning higher-level thinking skills. Bennett (2008) noted that most teachers come from middle-class backgrounds where they rarely encountered low-income students and families until they entered the classroom. Furthermore, little or no instruction has been provided to preservice teachers about working with students from poverty.

Gorski contended that the poor and middle classes have some coinciding values, including appreciating education and the importance of hard work (Gorski, 2008). However, poor students are not the same socially, emotionally, behaviorally, or cognitively as those from the middle class (Jensen, 2013). If they were, the exact same instruction provided to both middle-class and poor students would produce the same outcomes. Data show that results are not the same. In one study of 81,000 students from across the United States, those students not in programs that serve large numbers of students from poverty had consistently higher levels of engagement than students who were eligible for free or reduced-price lunch (Yazzie-Mintz, 2007). Differences between middle-class and low-income students surface at school. By understanding those differences and how to address them, teachers can help diminish some of the negative effects of poverty.

NCLB's accountability measures required educators to focus on multiple subgroups of students. Poverty is often the one commonality impacting student achievement among these subgroups. Reardon traced the achievement gap between children from high-income and low-income families over 50 years and found that this disparity in school performance far exceeded the gap between White and Black students as cited in Ladd and Fiske (2011).

Budge and Parrett (2018) suggested that the United States is losing ground in providing all students with an equal opportunity to access a meaningful education. Duncan and Murnane (2014) reported the results of a study that assessed and compared students' reading and math skills when they began kindergarten and again in 5th grade. The report compared students from families in the top 20 percent income bracket with those from the bottom 20 percent. They found that students from wealthy families had an early literacy advantage of 106 percentage points at the beginning of kindergarten. The gap was wider when the students were assessed again in 5th grade (Duncan & Murnane, 2014).

Additional Sources Reviewed

The focus of this literature review was to discover what teachers believe about students who live in poverty and how those beliefs and perceptions impact student achievement. The literature was also reviewed to determine the most effective instructional strategies for improving the achievement of students in poverty and to establish the characteristics of effective teacher professional development. The literature on these topics was often intertwined with characteristics of effective school leadership, as successful leaders establish relationships and a culture of ongoing learning (Bondy, Mayne, Langley, & Williamson, 2005; Franklin, 2013; Nichols, 2015). Cuthrell, Stapleton, and Ledford (2009) proposed that the characteristics of effective schools should be infused into teacher preparation programs.

An additional purpose of the literature review was to identify the characteristics of successful professional development. Sources repeatedly cited that teacher input is an important aspect of professional development (Colbert, Brown, Choi, & Thomas, 2008; Eun, 2008; Garbriel, Day, Jeni, & Allington, 2011; Svendsen, 2016). This raises the following question: If the problem lies with teacher beliefs and perceptions about children in poverty, can teacher-driven professional development be the solution?

Synthesis and Conclusions

Standardized test results show that children in poverty do not perform as well as their peers in school. Teaching students in poverty presents challenges, and these challenges often manifest themselves in lowered teacher expectations and perceptions (Bomer et al., 2008; Budge & Parrett, 2018; Gorski, 2008; Jensen, 2009). Successfully educating students in poverty requires that teachers examine their beliefs and implement effective instructional strategies. Designing and employing professional development to impact teacher beliefs and classroom practice can increase student achievement for children living in poverty (Grant et al., 2008). For nearly two decades, NCLB's high stakes accountability measures mandated that educators focus efforts on monitoring and raising achievement levels among student sub-groups. The common factor impacting student achievement within and across all student sub-groups is poverty.

In recent decades, as accountability measures increased, teachers continued to search for strategies to raise student achievement. For many years, Payne's staff development program, which maintains that there is a disconnect between middle-class teachers and their students from lower socioeconomic backgrounds, has been popular among educators. This divide, according to Payne, occurs because teachers bring with them the hidden rules or understandings of the socioeconomic class in which they were raised. Payne (2005) believed that schools operate from

middle-class norms and use the hidden rules of middle class. Thus, she theorized that for students from impoverished backgrounds to be successful, educators must understand their hidden rules and teach them the rules that will make them successful at school and in future work.

Other researchers, however, concluded that Payne's work led to deficit thinking about students living in poverty, creating stereotypes that caused teachers to focus on students' weaknesses (Bomer et al., 2008; Budge & Parrett, 2018; Gorski, 2008). More current research concludes that Payne's work may have caused more harm than good, due to many educators stereotyping children from poverty as a result of years of training emphasizing that a whole class of people share the same culture (Gorski, 2018). While there are differences in ideology regarding the culture of poverty among Payne, Gorski, and Budge and Parrett, there are many similarities in their approaches to instructional strategies. Table 6 provides a comparison of these scholars' perspectives on poverty and instructional strategies.

Table 6

A Comparison of Perspectives on Poverty and Instructional Strategies that Increase Achievement of Impoverished Students

Researcher	Payne (2005)	Gorski (2008, 2018)	Budge & Parrett (2018)
Perspective on Poverty	Generational poverty can create its own culture with hidden rules	There is no culture of poverty; poverty is the result of structural barriers such as the unfair distribution of opportunity and access	Poverty is caused by limited opportunities and resources
Instructional Strategies	<ul style="list-style-type: none"> • Build relationships • Develop literacy skills • Hold high expectations for learning • Use data to guide instruction and intervention • Teach students hidden rules of the middle class • Teach mental models for abstract information 	<ul style="list-style-type: none"> • Build relationships • Develop literacy skills • Hold high expectations for learning • Use data to guide instruction and intervention • Embrace structural ideology • Make real-world connections for students experiencing poverty 	<ul style="list-style-type: none"> • Build relationships • Develop literacy skills • Hold high expectations for learning • Use data to guide instruction • Focus on disrupting poverty by embracing structural ideology • Teachers must reflect on their own beliefs and values to determine what shapes their perspectives

The research is clear that students in poverty continue to be impacted at school by teachers' beliefs and instructional approaches. Bradley and Corwyn (2002) proposed that "teacher attitudes and expectations may be part of a complex set of mediators linking low SES to school failure and behavior problems" (p. 382). They asserted that "teachers provide poor children with less positive attention and less reinforcement for good performance" (p. 382). Bradley and Corwyn (2002) contended that if students, "both prior to and during their school years, have less experience with cognitively stimulating materials and experiences at home, they are more likely to fulfill teachers' negative stereotypes," which increases the likelihood of negative interactions with teachers (p. 382). Archambault et al. (2012) argued that teachers' self-reported beliefs directly influence students' academic experiences, stating "When teachers feel enthusiastic and competent and transmit their enthusiasm to students by maintaining high standards and sending them the message that they can succeed, they contribute to students' academic achievement" (p. 324).

Teachers' beliefs about students can become a child's reality in the classroom. Dell'Angelo (2016) conducted a multiple regression study showing that teachers' thinking about barriers to learning is a strong predictor of student achievement. Gorski (2018) agreed, affirming specifically that what teachers believe about people experiencing poverty informs how they teach and interact with students. Moreover, common perspectives exist about why people are poor (Budge & Parrett, 2018; Gorski, 2018; Heberle et al., 2018). Teachers who hold deficit views of students in poverty will struggle to help them succeed because they will work to "fix" them, rather than deal with the structural barriers they face that result in inequitable access to resources (Gorski, 2018).

Professional development is needed to help teachers address their beliefs about people

who live in poverty and to help them implement strategies that are most effective for students from poverty. Training is necessary to address teachers' beliefs about cultural and ethnic deficiencies (Gorski, 2018; Mullen & Kealy, 2013). An achievement gap for impoverished students exists due to inequities in the distribution of access and opportunity, not deficiencies in mindsets, cultures, or grittiness of people experiencing poverty (Gorski, 2018).

The literature review related to instructional strategies that increase achievement of students in poverty has revealed disagreement among researchers as to whether specific strategies can impact the success of poor students or whether good teaching that works for all students will also work for students in poverty (Budge & Parrett, 2018). Researchers repeatedly note relationship building as a strategy that is necessary to understanding students' backgrounds and creating learning environments conducive to student success (Budge & Parrett, 2018; Hattie, 2009; Jensen, 2009; Payne, 2008; Schlechty, 2002). Holding high expectations for students is also frequently cited as a strategy to help students in poverty reach success (Budge & Parrett, 2018; Gorski, 2008; Jensen, 2009).

Well-designed, appropriate training is necessary to ensure that teachers have the strategies they need to impact students in poverty. However, Garet, Porter, Desimone, Birman, and Yoon's (2001) regression analysis indicated that little research is available to demonstrate the impact of teacher professional development on student achievement. Gorski (2018), drawing upon multiple research sources, suggested that training is necessary to ensure that teachers understand the students they teach, to help them engage in a thorough examination of their own beliefs and biases, and to ensure that educators have knowledge of effective instructional strategies that help poor students succeed.

Guskey (2000) contended that multiple researchers have tried to determine the impact of professional development with little success. Additional research is warranted because studies have not thoroughly investigated teachers' impact on the academic achievement of students in poverty following professional development that targets beliefs and specific high yield instructional strategies. Evaluation typically follows the implementation of specific commercial programs, but not those designed by practitioners and district leaders (Magee, 2005). The current achievement gap indicates that the professional development experienced by most teachers today is not providing the knowledge and skills to yield sustained, systemic change.

While the impact of professional development on student achievement is inconclusive, researchers continue to work to identify characteristics of high-quality professional development that increases teachers' potential to impact student achievement. Guskey (2000) stated, "Never before in the history of education has greater importance been attached to the professional development of educators" due to NCLB educational reform proposals (p. 3). Grant, Stronge, and Popp's (2008) case studies suggested that a relationship exists between continuing teacher professional development and student achievement. These authors asserted that the single most influential school factor affecting student achievement is the teacher. For teachers to increase student achievement, they must be learning all the time, yet many professional development opportunities do not improve student results (Guskey, 2000). Professional development designed by practitioners, around relevant topics, implemented in the workplace, and with support for teachers, yields the greatest success for educators and students (Croft et al., 2010; Grant et al., 2008; Guskey, 2000; Morewood & Bean, 2007).

This review of the literature pertains to beliefs related to students who live in poverty, instructional strategies that increase student achievement, and characteristics of effective teacher

professional development. The review provides foundational information for pursuing additional research on these topics. Individuals who have the authority and power to enact change for students in poverty must do so. District leaders can influence policy change, can set high expectations for educators and teacher training, and can establish guidelines for professional development to ensure that teachers are prepared to understand and meet the needs of students living in poverty.

Chapter 3

Methods

Aim and Organization of the Chapter

The aim of this chapter is to describe the methods and design of the study. The chapter is comprised of the following sections: purpose of the study, research questions, research design, sample population, procedure, and data analysis plan.

Purpose of the Study

The purpose of this mixed-methods study was to discern the impact of practitioner-designed professional development (PD) on teacher beliefs about students from poverty. Beliefs are important because they mold teachers' thoughts and impact the instructional strategies they choose to implement in the classroom (Rubie-Davies et al., 2012). Existing studies do not explore multiple perspectives on poverty. So, this study focused on the creation and implementation of PD designed to help teachers explore their beliefs about students from poverty, because beliefs impact classroom practices, which impact student achievement.

The study investigated whether teachers' beliefs changed after they received PD addressing teaching students from poverty. This PD was based on research from multiple studies on educators' perspectives and effective teaching strategies for poor students. The study also examined whether changes in teachers' beliefs led to changes in their instructional practices. Results from this investigation address the current gap in the literature regarding the impact of practitioner-designed professional learning experiences on teacher beliefs about students from poverty. This research could provide guidance to administrators seeking to plan teacher training to improve the achievement of students in poverty.

Research Questions

The central research question of this study was: To what extent does practitioner-designed PD impact teacher beliefs regarding students from poverty? I also attempted to address the following sub-questions:

1. What did teachers believe about students who live in poverty prior to participating in targeted PD?
2. How did teacher beliefs change after participating in targeted PD?
3. How did teachers adjust their use of instructional strategies after participating in targeted PD?

The third sub-question was adapted from Magee's (2005) work, which focused specifically on the implementation of Ruby Payne's three-year, for-profit, teacher training model. The question in Magee's study pertained to the impact of Payne's commercially designed PD program on changing the knowledge, skills, and beliefs of teachers. In contrast, my study focused on the design, development, implementation, and impact of a shorter series of professional learning experiences designed by practitioners.

Research Design and Justification

This study was conducted using an action research design, which allows practitioners to better understand and improve their work while spurring change in policy and practice (McMillan & Wergin, 2010). The standard for action research is practical: Does it provide information that helps inform decision-making? Stringer (2008) described action research as "a distinctive approach to inquiry that is directly relevant to classroom instruction and learning and provides the means for teachers to enhance their teaching and learning" (p. 1). The study set out

to provide data that will help practicing school administrators make informed decisions about the professional learning experiences they provide for teachers.

The study used a mixed-methods approach that incorporated quantitative analysis of surveys and qualitative analysis of professional learning (PL) experiences and interviews. Creswell (2012) suggested that mixed methods and action research involve “data collection that might involve both quantitative and qualitative forms of data” (p. 593). Action research lends itself to qualitative designs (McMillan & Wergin, 2010; Rust, 1999; Stringer, 2008; Weisman & Garza, 2002) that provide an opportunity for teachers to reflect on their experiences, examine their beliefs, and expand their toolboxes of skills and strategies. As a research design, mixed-methods research was used for its ability to integrate both quantitative and qualitative data collection techniques. The mixed-methods approach allowed for in-depth analysis and triangulation of data.

Sample Population: Elementary Teachers

The sample population participating in the PL experiences was elementary teachers who were new to Montgomery County Public Schools. Brooks-Gunn and Duncan (1997) asserted that “children who experience poverty during their preschool and early school years” are less likely to complete school than students who experience poverty only in later years (p. 55). Due to the potential for early intervention to reduce poverty’s impact on children, teachers working with the youngest students were selected to participate in the study. New teachers were selected because the PL experiences were designed as part of the division’s annual training protocol for new teachers. All new hires to the division participate in this training regardless of previous experience. Data from the 2018-19 school year indicated that many newly-hired elementary teachers had not participated in PL experiences like those being created for this study.

Fifty-three new elementary teachers were hired for the 2019-20 school year. As part of the division's new teacher training program, all these teachers participated in a series of PL experiences designed to enable them to examine their beliefs and perceptions about people from poverty, to review data and research about people living in poverty, and to practice with effective instructional strategies for helping impoverished students succeed in the classroom. Each of the 53 elementary teachers in the sample completed a survey before and after the PD regarding their beliefs, knowledge, and experiences related to working with students in poverty. Forty-seven teachers granted permission for their data to be included in the study.

Following the completion of the training sessions, teachers from a sub-group of the overall sample were invited to participate in interviews. The sample population for this portion of the study included elementary teachers who participated in the PL experiences on teaching students from poverty, who had completed the two surveys, and who teach in one of the division's seven elementary schools that receive schoolwide Title I support (schools with at least 40% of students eligible for free or reduced-price lunch). Twenty-six teachers were identified as meeting these criteria. Participation in the interviews was voluntary, and 10 of these 26 teachers volunteered to be interviewed.

Data Collection Procedures

Data Collection, Instrument Design, and Validation

Before implementing the study, I completed an Institutional Review Board (IRB) research application and was granted approval on July 29, 2019 (Appendix A). I followed the school division's procedures for obtaining approval to conduct this study. The consent letter confirming permission to conduct the study in the school division is included (Appendix B). Obtaining consent was not required because the project involved the implementation of research-

based best-practice PD conducted by division practitioners to improve instructional strategies and student achievement as part of its standard training protocol. However, I chose to seek permission for the study from the division superintendent. I also completed CITI training on Social and Behavioral Research (Appendix C).

Designing the Teacher Professional Development

I collaborated with a team of administrators and instructional specialists through three face-to-face meetings, as well as numerous emails and informal conversations, to create the PD. First, I assembled a design team to create the sessions. I emailed instructional specialists and three administrators who participate in the division's Literacy Team. The email explained that I was seeking volunteers who had a desire to assist with this work as part of the 2019-20 new teacher training. A copy of the email is attached as Appendix D. Two administrators and two instructional specialists volunteered to be a part of the team.

The team met in June 2019 to begin designing the sessions. The agenda for the meeting is attached as Appendix E. The team outlined five training sessions using the characteristics of effective teacher PD, beliefs about students from poverty, and effective instructional strategies that I had identified through my literature review (see Chapter 2). Because researchers must engage in processes to validate their work, procedures, and findings (Creswell, 2005; Creswell & Poth, 2018), I developed and used a matrix similar to one in Cobb's (2014) study to ensure that the content addressed in the research questions was reflected in the training. This instrument was also used as a checklist to ensure that the characteristics of effective teacher PD were incorporated into the training. The matrix is attached as Appendix F.

The design team completed the instrument to ensure that the content of the training addressed the research question and sub-questions. The instrument was used to confirm that the

training intentionally explored teacher beliefs, included effective instructional strategies from the literature review, and incorporated the effective characteristics of teacher PD identified in the literature review. The team worked collaboratively to complete the content validity matrix to determine if all items were addressed in the training. Reviewers indicated that one item had not been addressed or included in the training, and the team made suggestions for addressing the missed item. I revised the matrix to reflect reviewer feedback.

Using the literature review (see Chapter 2) as a guide, I designed an interview protocol to ensure that interview questions were coherent and consistent with the research questions (Brinkmann & Kvale 2015). The protocol is made up of open-ended questions; it begins with questions to invite interviewees to talk freely and ends with a statement of appreciation. Creswell (2005) explained that content validity is the extent to which the questions on an instrument are representative of the questions that could be asked to assess a particular construct. A validity instrument (Appendix G) was used to ensure that the content of the interview questions fully aligned with the research questions. According to Creswell (2005), the researcher should consult two to three experts to examine content validity. The design team possessed expert knowledge of this topic. These experts completed the interview protocol validity instrument, and the twelve questions were adjusted and clarified based on their feedback (Appendix H).

Continuing to use my literature review (Chapter 2) as a guide, I developed the professional learning experiences in collaboration with the design team members. Training dates were scheduled during teachers' contracted work time and designed specifically to meet the needs of adult learners. Team members designed the content for each session ensuring alignment with the research questions as outlined in the content validity matrix.

The first session was planned to include an explanation of the study and to allow time to administer the survey. The second training session was outlined to provide teachers with the opportunity to reflect on their beliefs about people from poverty and the origins of their ideas about poverty and people from poverty. The design team determined that during the training, teachers would explore data, facts, and case studies about people from poverty and would be given the opportunity to confront any negative stereotypes and biases they may have. In addition, this training session would include a focus on building relationships with students and their families. The third training session was planned to address the elements of effective lesson plans and instructional strategies, such as holding high expectations for curriculum and student work and creating engaging tasks. The team designed the fourth session to continue the focus on building relationships, student engagement, and teacher beliefs about students from poverty. The fifth session would address analyzing data, planning interventions, and providing specific feedback that motivates and encourages student growth.

Team members then selected and designed the specific content they would present during the PD sessions. In keeping with the nature of design research, team members agreed that training sessions would be adjusted to meet the needs of participants based on feedback from the teachers. Herr and Anderson (2005) asserted that, unlike traditional social science research that prohibits intervening in the research setting, “action research demands some form of intervention” to improve upon what is already taking place (p. 5).

The design team reviewed the feedback tool that the sample population would complete during the training sessions. The instrument was designed to provide participants with an opportunity to reflect on their learning. The instructional strategies feedback form is included as Appendix I. The purpose of this feedback form is to allow teachers to indicate which strategies

they believe they will fully implement on their own, which strategies they hope to implement with additional support, and which ones they would like to see addressed in future trainings. The feedback form reflects instructional strategies from the literature review (see Chapter 2) and aligns with Virginia's performance standards for teachers. Team members suggested that the tool be divided into sections that correspond with the content of each training session, and that directions for completion be more specific. I revised the form in response to these suggestions. The design team then set a date for the second planning meeting.

The team met in July 2019 to review the training sessions created by each team member. The agenda for this meeting is attached as Appendix J. Team members shared the presentations they had planned for the three August sessions.

The first session presentation introduced the study, assurance of confidentiality, and an explanation of how the study data would be used. In addition, teachers would be asked to complete the survey regarding their beliefs about students from poverty, knowledge of instructional strategies, and demographic information at this session. The presentation included an introduction to state and local data regarding the achievement level of all students and students from poverty on state assessments.

Session Two would allow teachers to explore the following: their beliefs about students from poverty and the origins of these beliefs, facts about students from poverty, holding high expectations for students, and building relationships with students and families. The third session would address strategies for effective lesson planning, clearly communicating learning objectives and criteria for success, ensuring access to rigorous curriculum, and designing tasks with engaging qualities.

At the second planning meeting, the team also reviewed the outline of content for the remaining two sessions that would be presented in October 2019. The team reviewed the content and validity instrument (Appendix F) to confirm that the trainings incorporated the correct content. Decisions were made regarding how to include topics that had not yet been fully addressed by the training. The design team made additional suggestions for modifying the instructional strategies feedback form. Team members agreed that the document would be adjusted to reflect the individual training sessions and that multiple documents would be used. Teachers would complete feedback forms that matched the content of each session. I created forms for Sessions 2 (Appendix K) and 3 (Appendix L). Team members implementing those sessions reviewed the forms to ensure that the content of their presentations was accurately reflected. Forms were adjusted based on team members' feedback.

Training Sessions 1, 2, and 3 were implemented in early August 2019. Study participants completed the survey during Session 1. The design team met later in August to review the feedback forms from Sessions 2 and 3. Team members analyzed the data to determine adjustments needed for Sessions 4 and 5. The agenda for this meeting is found in Appendix M. The content for the last two sessions was adjusted to include the items that participants indicated they wanted to see in future trainings. Additionally, team members used their observations from the trainings to determine further modifications and created a final outline of content to be included in the last two sessions. The team set a date for the next meeting to review the presentations for Sessions 4 and 5.

Design team members met in September 2019 to review the content of the last two presentations. The agenda for this meeting is found in Appendix N. The team made suggestions for re-ordering content for clarity and reducing content to fit within time constraints. It was

agreed that presenters for the last two sessions would meet immediately following each session to make adjustments and suggestions for subsequent and future trainings. Team members implementing those sessions reviewed feedback forms to ensure that the content of their presentations was accurately reflected. Forms were adjusted based on team members' feedback (see Appendix O and Appendix P).

Implementation of Training Sessions

PD sessions were held in August and October 2019.

Session 1

The first session was conducted on August 2, 2019. It included the survey administration and a presentation that contained data from recent state assessments. The data showed the achievement levels of all students and students from poverty across the state and within Montgomery County Public Schools. The presenters provided an explanation of the PD as well as a description of how the data would be used.

The survey was administered via email to the sample population of elementary teachers new to the division. The consent portion of the survey began with a question seeking permission to use data from the inventory and from future trainings in the study, and it included an explanation that the data would be used to help the division improve its PD. Participants were made aware that their responses would be anonymous, and that their names, e-mails, and all personal information would remain confidential. It was explained that after the second administration, email addresses would be changed to numbers, removing identifying information. To further ensure confidentiality, participants were advised that the email list used to distribute the survey would not be shared, would be kept confidential, and would be destroyed after the survey was administered. Participants were informed that they could skip any

survey questions that they did not want to answer and were assured that it would not affect their current or future relationship with the district if they decided not to participate or to skip some of the questions.

The survey included questions regarding teachers' beliefs about people from poverty, their knowledge of working with impoverished students, and their beliefs about their individual abilities to impact instruction. It was adapted from the inventory created by Budge & Parrett (2018). This tool was selected because the theme of the questions aligned with the central question and sub-questions of this study. I adapted the survey by adding questions requesting demographic information, and I also included questions about previous training regarding working with students from poverty. I purchased the right to electronically administer this survey from the Association for Supervision and Curriculum Development. The adapted survey appears in Appendix Q.

Session 2

The second training session was held on August 6, 2019. Participating teachers were divided into three groups: Grades K–1; 2–3; and 4–5. Support teachers such as special education teachers, reading specialists, and science, technology, engineering, and math (STEM) specialists were asked to join the group with whom they would work most closely. The teams rotated through three training sessions designed for teachers new to the division: one pertaining to working with students from poverty and two relating to literacy instruction. Each session lasted approximately one hour. When teachers entered the session on teaching students from poverty, a presenter greeted them at the door, modeling a technique for building relationships. As teachers explored their beliefs about students from poverty and the origins of these beliefs, they were given an opportunity to discuss and share information electronically through the Padlet computer

application. In this session, participants also discussed strategies for building relationships with students and families, and listed strategies that they intended to use in their classrooms. Finally, they completed the feedback form. Participants marked strategies from the training that they planned to implement, and also coded strategies for which they wanted to receive additional support and training. Following the PD session, I met with the presenters to review and discuss participant feedback. We planned how to address topics in future trainings for which participants requested additional support.

Session 3

The third training session was held on August 7, 2019. The sample population was divided into the same three groups as in Session 2. Participants again rotated through three training sessions, one of which was the PD addressing working with students from poverty. During Session 3, a presenter shared information pertaining to the elements of effective lesson planning. The administrator conducting the training discussed the importance of communicating the components of a lesson plan with students. Participants were provided with research demonstrating the importance of framing learning for students; to provide clarity for students, it is necessary to communicate learning objectives, itinerary, and criteria for success, and to explain why the learning is important. Participants worked with a partner to create success criteria for mastery objectives that were provided.

The second presenter shared instructional strategies for maintaining high expectations for curriculum and student work. Teachers had the opportunity to practice and discuss strategies for engaging students in learning. They created tasks that allowed students to learn with others, to provide personal responses, and to engage in authentic real-world experiences. Participants completed tasks that gave them an opportunity to generate different, open-ended responses. They

discussed what personal response tasks would look like in their own classrooms, and practiced learning with others by talking with a partner and paraphrasing their partner's response. Teachers reviewed examples of non-linguistic representations and were asked to share their own examples. Last, they completed the feedback form for this session, identifying strategies from the training that they planned to implement and strategies for which they wanted to receive additional support and training. Following the PD session, I met with the presenters to review and discuss the participant feedback. We set a date to meet later in August to review the content for the last two sessions.

During the August design team meeting, team members reviewed and discussed the feedback collected at the end of the second and third training sessions. The agenda for this meeting is attached in Appendix M. Team members concluded that components of effective lesson plans needed to be reviewed in future trainings. Feedback from the trainings also indicated the need to reinforce strategies for ensuring that learning tasks include engaging qualities. Team members discussed the content of the last two sessions and agreed upon a date in September to review the final presentations.

The fourth design team meeting was held in September 2019. The agenda for this meeting is attached in Appendix N. Team members again reviewed the content and validity instrument, using the tool to confirm that the trainings explored teacher beliefs and included the effective instructional strategies identified in the literature review. Team members reviewed the compiled feedback from Sessions 2 and 3 to ensure that the presentations addressed the needs identified by teachers. Presenters shared their presentations and adjusted the content in response to feedback from the team. Additional time was allotted to address the engaging qualities of

student work. Presentations included models of lesson planning templates to meet the identified needs of the sample population.

Session 4

Session 4 was held on the morning of October 3, 2019, for kindergarten, first, and second-grade teachers. The session was repeated on the morning of October 8, 2019, for third, fourth, and fifth-grade teachers. The sample population was divided into two groups for Session 4, including a kindergarten group and a Grade 1–2 group on Day 1, and a Grade 3 group and a Grade 4–5 group on Day 2. The two groups rotated through three new-teacher training sessions, one of which addressed teaching students in poverty. Participants engaged in a simulation designed to require them to make choices as if they were parents of students from poverty, giving them the opportunity to experience poverty from a parent’s perspective. Participants shared their reactions to the simulation following the activity. The activity allowed them to discuss their beliefs and misconceptions about people from poverty.

Next, participants reviewed strategies for promoting a growth mindset. They watched a video clip about the impact of teacher expectations on student success. Participants collaborated with a partner to identify characteristics of leaders who helped them feel successful, and then discussed how they could incorporate those characteristics into positive interactions with students. Participants completed a feedback form at the end of the session. They again marked strategies from the training that they planned to implement and strategies for which they wanted additional support and training. Following the session, I again met with presenters to review the feedback. Design team members identified items for which teachers requested additional training and support. Presenters determined which items could be reviewed during the final session, such

as lesson planning components and strategies for ensuring that all students participate in classroom activities.

Session 5

Session 5 was held on the afternoon of October 3, 2019, for kindergarten, first, and second-grade teachers, and was repeated on the afternoon of October 8, 2019, for third, fourth, and fifth-grade teachers. The sample population was divided into two groups for Session 5, including a kindergarten group and a Grade 1–2 group on Day 1, and a Grade 3 group and a Grade 4–5 group on Day 2. The two groups rotated through three new-teacher training sessions, one of which addressed teaching students in poverty.

Participants reviewed and practiced engaging instructional strategies, including personal response, learning with others, and non-linguistic representations. They created non-linguistic representations for upcoming lessons and shared these with the group. Participants then reviewed and practiced giving effective feedback that was specific regarding strategy, effort, or attitude. They discussed the difference between remediation and intervention and how to provide appropriate interventions based on specific assessment data. Participants revisited data from Session 1 showing the achievement levels of all students and students from poverty across the state and within Montgomery County Public Schools. Finally, they completed the post survey and the feedback sheet for Session 5.

The design team debriefed following the last session. Team members reviewed the feedback sheets and shared suggestions for changes for future trainings. Additionally, the team discussed how to provide ongoing support for teachers as they implement strategies they learned in the training sessions. Table 7 provides a timeline for the development and implementation of the training sessions.

Table 7

Timeline for PD Development and Implementation

Date	Event	Activities
June 2019	Design Team Meeting 1	Training sessions outlined
		Validity matrix for PD content reviewed
		Interview questions validated
		PD feedback instrument adjusted
July 2019	Design Team Meeting 2	Presentations for first three training sessions reviewed
		Outline of Training Sessions 4 and 5 reviewed
		Validity matrix for PD content reviewed
		PD feedback instrument adjusted to match content of individual sessions
August 2019	PD Session 1	Study explained
		Survey administered
		State and local data for achievement of students from poverty reviewed
August 2019	PD Session 2	Beliefs about people from poverty and origins of these beliefs explored
		Relationship-building strategies for students and families explored
		Feedback instrument for session completed
		Feedback instrument reviewed by design team following training
August 2019	PD Session 3	Components of effective lesson plans presented
		Strategies for maintaining high expectations explored
		Strategies for engaging students in learning discussed

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Date	Event	Activities
August 2019	PD Session 3	Feedback instrument for session completed Feedback instrument reviewed by design team following training
August 2019	Design Team Meeting 3	Feedback from Sessions 2 and 3 reviewed Topics to include in future trainings identified from feedback review Content of PD Sessions 4 and 5 discussed and adjusted to include needs identified from feedback review
September 2019	Design Team Meeting 4	Validity matrix for content of PD reviewed Presentations for PD Sessions 4 and 5 reviewed Topics identified in feedback review included in presentations
October 2019	PD Session 4	Simulation for living in poverty completed and discussed Growth mindset, expectations, beliefs, and perceptions discussed Feedback instrument for session completed Feedback instrument reviewed by design team following training
October 2019	PD Session 5	Strategies for engaging students in learning reviewed and practiced Strategies for providing effective feedback introduced and practiced Strategies for using data to guide instruction and interventions discussed State and local data for achievement of students from poverty reviewed Feedback instrument for session completed Survey administered

Interviews with Teachers

Upon completing the PD sessions and second survey, participants from the seven schoolwide Title 1 elementary schools were invited to take part in follow-up interviews. The schoolwide Title 1 designation indicates that at least 40% of the school's students are eligible for free or reduced-price lunch. This means that teachers in these schools are more likely to work with students from poverty. Based on this criterion, 23 teachers were eligible to participate in interviews.

Brinkmann and Kvale (2015) proposed that the best way to get to know and understand people is to talk to them; thus, the qualitative interview “attempts to understand the world from the subjects’ point of view, to unfold the meaning of their experiences, to uncover their lived world prior to scientific explanations” (p. 3). Interviews are important for this study because they are the best way to determine to what extent teachers’ beliefs and perceptions are impacted by the PD, if instructional strategies from the PD are being implemented, and if the teachers perceive that student achievement is increasing as a result of the training. Teachers’ responses will shape the future design of the training and will determine the need for additional research.

I emailed the 26 eligible participants inviting them to participate in an interview (see Appendix R). After five teachers responded, I sent the email again and received confirmation from five additional participants for a total of 10. Each interview began with me reviewing the consent form and obtaining written consent (Appendix S). I used a script (Appendix T) to ensure that I reviewed with each participant the study’s purpose, the amount of time needed to complete the study, the interviewee’s right to withdraw, and my plans for using the interview responses. In addition, I informed each interviewee that pseudonyms would be used for their names and their schools, ensuring that their responses would be confidential.

I explained that the interview would be digitally recorded for transcription purposes and to ensure that participants' ideas and expressions were presented accurately. The interviewees were asked to give verbal consent to be digitally recorded. Once permission was granted, digital recording proceeded. Interviewees were advised that each transcript would include a form to be completed suggesting changes or giving permission to use the transcript as-is (Appendix U). The interviewees were instructed to complete the form if there were any corrections or additions to the transcribed interviews and to return to me in the envelope provided. The audio recording was stopped upon completion of the interview. The checklist I used to ensure that needed information was collected during and after interviews is attached in Appendix V.

The recorded interviews were transcribed using TranscribeMe, an online transcription service. All transcripts were mailed to the interviewees for their review. Participants were advised if there was no response within a week from the date the transcript was sent, it would be assumed there were no changes and their data would be included in the study (Appendix U).

Data Treatment and Management

The key data management task is to ensure that teachers who participate in the study cannot be matched to their survey or interview responses. Pseudonyms were used for schools and participants to protect the confidentiality of interview participants. I stored all study data on my computer at home and protected it with a unique password to ensure the security of the data. Hard copies of interview documents were stored in my home in a locked file. Digital recordings of interviews were also stored in a locked file in my home and were destroyed after the successful completion of the dissertation defense.

Data Analysis

This study included both quantitative and qualitative data; therefore, multiple types of data analysis were completed. Howell (2011) suggested that when we want to describe a set of data, we employ descriptive statistics, which often includes using procedures such as finding means or distributions to help characterize the data. Descriptive statistical analysis was used for the demographic and survey data. According to McMillan and Schumacher (2010), surveys are often used in educational research to collect information about attitudes, opinions, and beliefs. Surveys are designed so that data about the population can be inferred from the responses acquired from a sample. *Survey research* was defined by Leedy and Ormrod (2016) as a “descriptive quantitative study in which a large number of people are asked questions and their responses tabulated in an effort to identify general patterns or trends in a certain population” (p. 372).

Data from the initial survey were analyzed to ascertain teachers’ beliefs about students from poverty and their knowledge and skills related to teaching impoverished students. The initial survey also collected demographic information. After the completion of the PD, the survey was administered a second time. The data from the second survey were analyzed to determine the impact of the training. A paired sample t-test was used to determine if the training had an impact on teachers’ beliefs and knowledge.

Creswell (2005) proposed that researchers work with a collection of data to analyze and explain it and to address research questions. The data collected in this study were analyzed by considering their connection to the research questions. Interview responses were examined to identify emerging themes and patterns. I reviewed the interview transcripts for key words and

phrases that appeared repeatedly, for information that was identified as important, for concepts that related to the literature review, and for unexpected findings.

I triangulated the data by reviewing the surveys, the feedback data from the PD sessions, and the interviews. An administrator who has her doctorate, has experience with qualitative studies, and has knowledge of the relevant literature independently examined a sample of my interview data analysis to ensure inter-rater reliability. I identified and resolved any differences between the coding and analysis of the data.

A final analysis of the data was conducted by synthesizing the quantitative analysis of the survey data with the qualitative analysis of the interview data to define the meaning and conclusions of the study. I explored whether the training had an impact on teacher beliefs by comparing the initial survey results to the second survey results. I analyzed interview responses to examine the impact of the training on teacher beliefs, implementation of instructional strategies, and teachers' perceptions of the impact of the training on student achievement. In addition, I analyzed feedback from the training sessions to examine whether teachers indicated they were ready to implement instructional strategies in their classrooms. The final synthesis of data provided an understanding of issues regarding training designed to help teachers examine their beliefs and support their implementation of effective instructional strategies for increasing the achievement of students from poverty.

Chapter 4

Results of the Data Analysis

Introduction

After almost 20 years of implementing NCLB measures to close the achievement gap between poor and non-poor students, the disparity remains (Ladd, 2017; Lee & Reeves, 2012). The purpose of this mixed-methods study was to discern the impacts of practitioner-designed professional development (PD) on teacher beliefs about students from poverty. Examining teacher beliefs is important because beliefs mold thoughts and impact the instructional strategies teachers choose to implement in the classroom. Existing studies do not explore multiple perspectives of different researchers on poverty. Therefore, this study focused on the creation and implementation of PD designed to help teachers explore their beliefs about students from poverty.

The study investigated whether teachers' beliefs about students from poverty changed after they received research-based PD focusing on educators' perspectives and effective strategies for teaching poor students. The study also examined whether changes in these beliefs led to changes in instructional practices. Results from the investigation address the current gap in the literature regarding the impact of practitioner-designed professional learning experiences on teacher beliefs about students from poverty. This research could provide guidance to administrators seeking to plan and implement teacher training to improve the achievement of students in poverty.

Research Questions

The central research question of this study was: To what extent does practitioner-designed PD impact teacher beliefs regarding students from poverty? I also used the following sub-questions to guide my research:

1. What did teachers believe about students who live in poverty prior to participating in targeted PD?
2. How did teacher beliefs change after participating in targeted PD?
3. How did teachers adjust their use of instructional strategies after participating in targeted PD?

Findings

In this study, elementary teachers new to the school division participated in practitioner-designed PD to help them explore their beliefs about students from poverty. The training also provided teachers with the opportunity to learn and practice effective instructional strategies for teaching students from poverty. The purpose of the study was to ascertain the impacts of this PD on teachers' beliefs and classroom practices. This chapter presents the study findings, including insights from three forms of data collected: surveys, instructional strategies feedback documents, and interviews. The section begins with a presentation of the descriptive statistics providing information about the demographic characteristics of the sample. Thereafter, the results are presented, organized by the topic of each research question.

Descriptive Statistics

The study sample consisted of 47 elementary school teachers of Grades K through 5, including reading, special education, and science, technology, engineering, and math (STEM) teachers who teach core content in reading, math, science, and/or social studies. Forty-seven of the 53 elementary teachers newly hired to the division gave permission for their data to be used in the study and completed both the pre and post surveys. Most were experienced teachers (61.7%) with three or more years of teaching experience. More than half of the teachers (55.3%) were employed at Title I schools, and a majority were female (95.7%). Fewer than half of the

teachers (44.6%) reported having previous training related to working with students from poverty. Of these teachers, 10 volunteers from five Title 1 schools participated in interviews about the impact of the training on their beliefs and instructional practice. (Demographic information specific to the interview volunteers is withheld in order to protect the confidentiality of this small sub-group of participants.) A complete demographic description of the study sample is provided in Table 8.

Table 8: *Demographic Description of Study Participants*

Variable	<i>n</i>	%
Grade Level Teaching Assignment		
Kindergarten	4	8.5%
1 st Grade	5	10.6%
2 nd Grade	3	6.4%
3 rd Grade	13	27.7%
4 th Grade	9	19.1%
5 th Grade	2	0.04%
Other (Reading, Special Education)	11	23.4%
Years of Teaching Experience		
Beginning (0 years)	14	29.8%
Novice (1 - 2 years)	4	8.5%
Experienced (3 or more years)	29	61.7%
School Type		
Title I	26	55.3%
Non-Title I	21	44.7%

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Variable	<i>n</i>	%
Gender		
Female	45	95.7%
Male	2	4.2%
Previous Training		
Yes	21	44.6%
No	26	55.3%

The analysis was conducted using the conceptual framework introduced in Chapter 1 as a guide. Teacher beliefs predict student achievement (Dell'Angelo, 2016; Gorski, 2018; Jensen, 2009). The conceptual framework captures how beliefs impact instructional strategies and student achievement. Several researchers (Croft et al., 2010; Grant et al., 2008; Guskey, 2000; Morewood & Bean, 2007) argued that PD designed by practitioners, around a relevant topic, implemented in the workplace, and with support provided for teachers, produces the most success for educators and students. This framework, combined with the strategies for implementing effective PD, provided structure and organization for this data analysis.

Codes for Schools and Teachers

Codes were assigned to represent the following:

- School A, School B, School C, School D, and School E represent the five participating schoolwide Title 1 elementary schools.
- Teacher 1, Teacher 2, and Teacher 3 designate teachers from Title I schools who participated in interviews.

- A1, A2, B1, B2, B3, C1, C2, D1, E1, and E2 designate the teachers from Schools A, B, C, D, and E.

Data included from confidential interviews are identified by the following scheme: (A2), for example, indicates Teacher 2 at School A.

Training Participants

Data were collected from elementary teachers newly hired to Montgomery County Public Schools for 2019-20. All participants were asked to complete an online survey prior to the training. This survey was administered during the first session, which was designed to introduce the study. The survey included questions regarding teachers' beliefs about people from poverty, teachers' knowledge about working with impoverished students, and teachers' beliefs about their individual abilities to impact instruction. It also included a question allowing participants to give or withhold consent for their data to be used in the study. Forty-seven teachers gave permission for their data to be included. Teachers completed the survey again after the final session in the professional learning experience.

Teacher participants were asked to complete instructional strategies feedback forms at the conclusion of PD Sessions 2, 3, 4, and 5. Participants indicated on these documents which items they felt comfortable implementing on their own and for which items they wanted further training and additional support. During the last training session, participants currently teaching in one of the division's seven schoolwide Title 1 elementary schools were advised of the opportunity to participate in optional individual interviews. It was explained that the interviews would allow them to provide additional feedback on the training.

Interview Participants

Ten teachers who completed the PD sessions on teaching students in poverty and who teach in a schoolwide Title 1 elementary school volunteered to participate in these interviews. These criteria were used because at least 40% of the students at schoolwide Title 1 schools are eligible to receive free or reduced-price lunch. This statistic indicates that teachers at these schools are more likely to work with students from poverty. Interview participants were asked 12 questions and probing follow-up questions as needed to clarify responses.

Presentation, Description, and Explanation of the Data

The data for the research question and sub-questions are presented, described, and analyzed in this section. Pre and post surveys were completed by 47 teachers new to the division. The survey data were analyzed using a paired sample *t*-test to determine the impact of the training on teachers' beliefs and knowledge. The quantitative survey data are presented by topic in two tables: one table addressing beliefs and one for instructional strategies.

Instructional feedback forms were collected from all participants as they finished training sessions. This feedback was analyzed and used to modify future sessions. The design team reviewed the forms for trends that indicated the need for additional support or readiness for implementation. These data are reported in four tables: one for each training session.

Individual interviews were conducted with teachers from five schoolwide Title 1 elementary schools. The interviews were transcribed using TranscribeMe, an online transcription service, after which I coded them. An administrator who has her doctorate, has experience with qualitative studies, and has knowledge pertaining to the literature reviewed (Chapter 2) independently examined a sample of my interview data and analyzed it for interrater reliability. My coding and identification of emerging themes were compared to her analysis. I identified one

difference between the coding and analysis of the data. This difference was resolved by including the element as a code and subtheme. Emerging themes (findings) are presented in two tables: one organized by overarching categories and themes, and another that includes subthemes, interpretations, and evidence.

The section Interview Results presents the findings that address the research sub-questions: What do teachers believe about students who live in poverty? How do teacher beliefs change after teachers participate in the PD? To what extent do teachers adjust their use of instructional strategies after participating in the targeted professional development?

The final section of this chapter addresses the primary research question: To what extent does practitioner-designed professional development impact teacher beliefs regarding students from poverty?

Feedback and Survey Results from PD Sessions

The sample population of elementary teachers new to the division was divided into grade-level groups. These groups learned about the study and completed an initial survey during Session 1. Participants then completed the training sessions on working with students from poverty. During each training, participants rotated through three sessions designed for teachers new to the division: one pertaining to working with students from poverty and two addressing literacy instruction. Sessions were approximately one hour long.

As teachers explored their beliefs about students from poverty and the origins of these beliefs, they were given an opportunity to discuss and share information electronically using the Padlet computer program. This program allowed participants to see responses from the group. Teacher participants shared that their beliefs about students from poverty came from personal experiences, from the media, and from prior Ruby Payne training. Participants also discussed

strategies for building relationships with students and families. Then they completed a feedback form regarding the session. Participants marked strategies from the session that they planned to implement. Responses to 25 out of 26 areas indicated that participants were likely to implement topics from Session 2. Teachers also coded strategies for which they wanted to receive additional support and training. A small number of participants indicated that they wanted additional support and training for the following strategies or topics:

- engagement,
- building relationships with parents,
- communicating in a way that demonstrates an awareness of a parents' view,
- ensuring that all students participate,
- using wait time,
- re-establishing contact with students who are disengaged,
- using statements to reframe students' self-doubting, negative statements,
- sticking with students and helping them persevere through challenging tasks, and
- having knowledge of all students.

Table 9 summarizes responses from the feedback forms for Session 2.

Table 9

Teacher Feedback from PD Session 2

Topic	Number of Responses Per Item	Likely to Implement (%)	Additional Support Requested (%)	Include in Future Trainings (%)
Relationship Building: Demonstrates key traits to build relationships with students, thus establishing a climate of trust by being fair, caring, respectful, and enthusiastic.				
Fairness	46	45 (98%)	0 (0%)	1 (2%)
Appearance	45	40 (89%)	3 (7%)	2 (4%)
Humor	47	45 (96%)	1 (2%)	1 (2%)
Courtesy	46	46 (100%)	0 (0%)	0 (0%)
Empathy	47	45 (96%)	2 (4%)	0 (0%)
Knowledge of all students	46	39 (85%)	6 (13%)	1 (2%)
Positive Greetings	47	46 (98%)	1 (2%)	0 (0%)
Respect	47	47 (100%)	0 (0%)	0 (0%)
Trust	47	47 (100%)	0 (0%)	0 (0%)
Realness/current	47	41 (87%)	5 (11%)	1 (2%)
Re-establishing Contact	40	30 (75%)	8 (20%)	2 (5%)
Active Listening	46	39 (85%)	4 (9%)	3 (7%)
Relationship Building: Builds positive, inviting, and professional relationships with parents/guardians through frequent and effective communication concerning students' progress.				
Implements proactive communication	45	37 (82%)	5 (11%)	3 (7%)
Implements positive communication	44	42 (95%)	0 (0%)	2 (5%)

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Topic	Number of Responses Per Item	Likely to Implement (%)	Additional Support Requested (%)	Include in Future Trainings (%)
Implements empathetic communication	44	41 (93%)	1 (2%)	2 (5%)
Communicates in a way that demonstrates an awareness of parents' view	46	17 (37%)	18 (39%)	11 (24%)
Ensures ongoing communication	44	35 (80%)	7 (16%)	2 (5%)
Beliefs: Sets high expectations for all students and communicates key messages.				
Communicates "This is important"	45	43 (96%)	1 (2%)	1 (2%)
Communicates "You can do it with effective effort"	45	41 (91%)	4 (9%)	0 (0%)
Communicates "I won't give up on you"	44	43 (98%)	1 (2%)	0 (0%)
Uses wait time 1	43	34 (79%)	4 (9%)	5 (12%)
Uses wait time 2	44	31 (70%)	9 (20%)	4 (9%)
Deals with students' errors in a way that dignifies student responses	42	33 (79%)	5 (12%)	4 (10%)
Sticks with students and helps them persevere through challenging tasks	47	40 (85%)	5 (11%)	2 (4%)
Ensures all students participate	42	25 (60%)	14 (33%)	3 (7%)
Uses statements to reframe students' self-doubting and other negative statements	46	33 (72%)	10 (22%)	3 (7%)

During Session 3, participants learned and practiced strategies to make student work more engaging. They also reviewed the components of effective lesson planning. Teachers' responses (varying from 66% to 83% across topics) indicated that would likely implement topics from the PD in their classrooms. However, for each component of the training, there were

multiple requests for additional support or for the component to be addressed in future trainings.

Table 10 summarizes responses from the feedback forms for Session 3.

Table 10

Teacher Feedback from PD Session 3

Topic	Number of Responses Per Item	Likely to Implement (%)	Additional Support Requested (%)	Include in Future Trainings (%)
Instructional Strategies: Uses a variety of effective instructional strategies and engages and maintains students in active learning.				
Designs learning experiences that encourage students to give personal responses where multiple answers are possible	47	38 (81%)	6 (13%)	3 (6%)
Designs learning experiences that encourage students to learn with others, where they must share or compare responses with one another, and/or explain or combine one another's ideas	47	34 (72%)	10 (21%)	3 (6%)
Designs authentic lessons with real-world connections	47	31 (66%)	8 (17%)	8 (17%)
Designs learning experiences that encourage students to create non-linguistic representations (kinesthetic, visual, etc.) and to verbalize their thinking	47	34 (72%)	9 (19%)	4 (9%)
Communicates the objective in terms students understand (what) and an itinerary for the lesson	47	39 (83%)	6 (13%)	2 (4%)
Communicates success criteria for the day's objective (how will I show I learned this)	47	32 (68%)	11 (23%)	4 (9%)
Communicates why the objective/lessons/activities are important	47	37 (79%)	6 (13%)	4 (9%)

Session 4 took place approximately nine weeks after the first three sessions. Participants completed activities designed to review and extend learning from previous sessions pertaining to relationship building, beliefs about people from poverty, and effectively communicating lesson components to students. Between 50% and 100% of participants indicated that they were likely to implement each training topic in their classrooms. The topic with the fewest teachers indicating they were likely to implement it was helping students reframe their self-doubting thoughts, with 45% requesting additional support or training for this topic. Table 11 summarizes responses from the feedback forms for Session 4.

Table 11

Teacher Feedback from PD Session 4

Topic	Number of Responses Per Item	Likely to Implement (%)	Additional Support Requested (%)	Include in Future Trainings (%)
Relationship Building: Demonstrates key traits to build relationships with students, thus establishing a climate of trust by being fair, caring, respectful, and enthusiastic.				
Empathy	47	45 (96%)	1 (2%)	1 (2%)
Knowledge of all students	47	39 (83%)	7 (15%)	1 (2%)
Respect	47	46 (98%)	1 (2%)	0 (0%)
Trust	47	38 (81%)	7 (15%)	2 (4%)
Realness/current	47	38 (81%)	7 (15%)	2 (4%)
Re-establishing contact	47	40 (85%)	6 (13%)	1 (2%)
Active listening	47	36 (77%)	6 (13%)	5 (11%)

(continued)

(continued)				
Topic	Number of Responses Per Item	Likely to Implement (%)	Additional Support Requested (%)	Include in Future Trainings (%)
Beliefs: Sets high expectations for all students and communicates key messages.				
Communicates this is important	47	47 (100%)	0 (0%)	0 (0%)
Communicates you can do it - with effective effort	47	45 (96%)	2 (4%)	0 (0%)
Communicates I won't give up on you	47	45 (96%)	2 (4%)	0 (0%)
Deals with students' errors in a way that dignifies their responses	47	33 (70%)	10 (21%)	4 (9%)
Sticks with students and helps them persevere through challenging tasks	47	40 (85%)	6 (13%)	1 (2%)
Ensures all students participate	47	28 (60%)	16 (34%)	3 (6%)
Uses statements to reframe students' self-doubting, negative statements	47	26 (55%)	15 (32%)	6 (13%)
Provides all students access to rigorous curriculum	47	30 (63%)	16 (34%)	1 (2%)
Instructional Strategies: Uses a variety of effective instructional strategies and engages and maintains students in active learning.				
Communicates the objective in terms students understand (what) and an itinerary for the lesson	47	35 (74%)	9 (19%)	3 (6%)
Communicates success criteria for the day's objective (how will I show I learned this)	47	32 (68%)	10 (21%)	5 (11%)
Communicates why the objective/lesson/activities are important	47	32 (68%)	12 (28%)	3 (6%)

Session 5 included a review of strategies for making student work engaging and setting high expectations for all students. This session also addressed strategies for providing effective feedback to students and for using data to guide instruction. At least 68% of participants

indicated they were likely to implement each session topic in their classrooms. The topic of analyzing data daily to determine learning had the lowest percentage of teachers (68%) indicating they were likely to implement it. Table 12 summarizes responses from the feedback forms for Session 5.

Table 12

Teacher Feedback from PD Session 5

Topic	Number of Responses Per Item	Likely to Implement (%)	Additional Support Requested (%)	Include in Future Trainings (%)
Instructional Strategies: Uses a variety of effective instructional strategies and engages and maintains students in active learning.				
Designs learning experiences that encourage students to give personal responses where multiple answers are possible	47	37 (79%)	9 (19%)	1 (2%)
Designs learning experiences that encourage students to learn with others, where they must share or compare responses with one another, and/or explain or combine one another's ideas	46	39 (85%)	6 (13%)	1 (2%)
Designs authentic lessons with real-world connections	47	35 (74%)	11 (23%)	1 (2%)
Designs learning experiences that encourage students to create non-linguistic representations (kinesthetic, visual, etc.) and to verbalize their thinking	44	33 (75%)	7 (16%)	4 (9%)
Beliefs: Sets high expectations for all students and communicates key messages				
Deals with students' errors in a way that dignifies their responses	47	36 (77%)	9 (19%)	2 (4%)
Provides all students access to rigorous curriculum	44	37 (84%)	6 (14%)	1 (2%)

(continued)

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Topic	Number of Responses Per Item	Likely to Implement (%)	Additional Support Requested (%)	Include in Future Trainings (%)
Ensures all students participate	45	37 (82%)	8 (18%)	0 (0%)
Matches resources to correctly identified barriers	44	35 (80%)	9 (20%)	0 (0%)
Feedback: Provides clear, timely, and effective feedback to students				
Provides feedback on effective effort	45	42 (93%)	3 (7%)	0 (0%)
Provides feedback on specific goals	44	38 (86%)	6 (14%)	0 (0%)
Provides feedback on specific strategies	45	40 (89%)	5 (11%)	0 (0%)
Provides feedback on failure in a way that it helps students grow	46	41 (89%)	4 (9%)	1 (2%)
Provides feedback that is related to the learning goal and provides students with direction for next steps	46	35 (76%)	10 (22%)	1 (2%)
Feedback: Uses data to inform, guide, and adjust students' learning				
Analyzes data daily to determine learning (Who has mastered, almost mastered, not mastered daily objectives?)	47	32 (68%)	10 (21%)	5 (11%)
Collects and records relevant data	46	37 (80%)	5 (11%)	4 (9%)
Re-teaches concepts based on data analysis	46	37 (80%)	7 (15%)	2 (4%)
Re-teaches using different strategies matched to specific student needs	45	38 (84%)	5 (11%)	2 (4%)
Reassesses after implementing an intervention to determine the need for further intervention	44	39 (89%)	3 (7%)	2 (5%)

At the last training session, participants reviewed state and local data that showed an achievement gap between poor and non-poor students. After this session, participants completed

a post survey that contained two sections. The questions in the first section pertained to beliefs, while questions in the second section were related to instructional strategies and knowledge about working with students from poverty. The survey questions are found in Appendix Q. Participants were given the following directions for responding to the 11 questions relating to beliefs: Based on your personal perspective, rate/mark each statement as highly unlikely (-2), unlikely (-1), neutral (0), likely (1), or highly likely (2). Participants were given the following directions for responding to the nine questions pertaining to instructional strategies: Based on your current level of knowledge and skill, rate/mark each statement as strongly disagree (-2), disagree (-1), neutral (0), agree (1), or strongly agree (2).

A paired sample *t*-test was used to analyze the pre and post survey data. This statistical procedure is used to determine whether the mean difference between two sets of paired observations is zero. In a paired sample *t*-test, each unit is measured twice, yielding pairs of observations. Howell (2011) explained that the null hypothesis assumes that the true mean difference is equal to zero. Under this assumption, all observable differences are explained by random variation. The alternative hypothesis assumes that the true mean difference between the paired samples is not equal to zero. The limit for determining statistical significance is a value of .05, corresponding to a maximum 5% chance of obtaining a result like the one that was observed if the null hypothesis was true. Thus, if the calculated value is less than .05, the null hypothesis of no difference is rejected, and it can be concluded that the teachers' survey results were significantly impacted by the training.

Survey questions were divided into those addressing beliefs and those pertaining to instructional strategies. Each question related to beliefs was analyzed. Then, the combined means for all questions pertaining to beliefs were analyzed. For eight out of 11 questions regarding

beliefs, results indicated a statistically significant difference, $p < .05$. The results of the paired sample t -test for the composite beliefs scores indicated a statistically significant difference between the two values, $p = .000$. Table 13 displays the results of the paired sample t -test for individual and composite scores related to beliefs.

Table 13

Table 13: *Paired Sample t-test Beliefs*

Question	<i>n</i>	<i>M</i>	<i>s</i> ²	<i>r</i>	<i>df</i>	<i>t</i>	<i>p</i>	<i>Decision</i>
Each individual's experience with poverty is unique.				0.76	46	-2.69	.01	Reject
Pre	47	1.68	0.61					
Post	47	1.91	0.08					
Like any socioeconomic group, people who live in poverty are diverse in their beliefs, values, and behaviors.				0.79	46	-3.37	.002	Reject
Pre	47	1.55	0.60					
Post	47	1.79	0.30					
People who live in poverty do not share a common culture.				0.92	45	-5.63	<.001	Reject
Pre	46	-0.07	1.17					
Post	46	0.35	1.52					
Poverty adversely affects people's lives in probable and identifiable ways.				0.962	46	-2.07	.04	Reject
Pre	47	1.26	1.06					
Post	47	1.34	1.06					

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Question	<i>n</i>	<i>M</i>	<i>s</i> ²	<i>r</i>	<i>df</i>	<i>t</i>	<i>p</i>	<i>Decision</i>
It is possible for educators to know and understand the adverse effects poverty has on their students.				0.94	45	-2.84	.007	Reject
Pre	46	1.07	1.17					
Post	46	1.22	1.02					
People in poverty work, on average, more hours than those in the middle class.				0.88	46	-4.42	<.001	Reject
Pre	47	0.62	0.89					
Post	47	0.91	0.95					
Even though we have a free public schooling system in the United States, all students do not have access to an equally good education.				1.00	UNDEF	UNDEF	UNDEF	Fail to reject
Pre	46	1.24	0.85					
Post	46	1.24	0.85					
People who live in poverty value education as a means for breaking the cycle of poverty.				0.89	46	-9.01	<.001	Reject
Pre	47	0.11	1.14					
Post	47	0.74	0.80					
Poverty is primarily caused by conditions in the broader society (including schools) that create unequal opportunity.				0.95	46	-1.94	.06	Fail to reject
Pre	47	0.32	1.22					
Post	47	0.43	1.42					

(continued)

(continued)

Question	<i>n</i>	<i>M</i>	<i>s</i> ²	<i>r</i>	<i>df</i>	<i>t</i>	<i>p</i>	<i>Decision</i>
Poverty is not primarily caused by weak moral character or poor choices.				0.95	46	-3.07	.003	Reject
Pre	47	0.81	1.42					
Post	47	0.98	1.24					
I am willing to question my current assumptions and beliefs about poverty and people who live in poverty.				0.97	46	-1.43	0.16	Fail to reject
Pre	47	1.49	0.56					
Post	47	1.53	0.43					
Composite Beliefs				0.86	46	-5.80	<.001	Reject
Pre	47	0.92	0.25					
Post	47	1.14	0.17					

For seven out of the nine questions related to instructional strategies, results indicated a statistically significant difference, $p < .05$. The results of the paired sample *t*-test for the composite instructional strategies' scores also indicated a statistically significant difference between the two values, $p = .000$. Thus, the conclusion is that the post survey results are significantly different from the pre survey results. Table 14 includes the results of the paired sample *t*-test for individual and composite scores related to instructional strategies.

Table 14

Table 14: Paired Sample *t*-test Instructional Strategies

Question	<i>n</i>	<i>M</i>	<i>s</i> ²	<i>r</i>	<i>df</i>	<i>t</i>	<i>p</i>	<i>Decision</i>
I can explain why my expectations of my students matter and how they influence the kind and quality of learning opportunities I provide.				0.87	46	-2.45	0.02	Reject
Pre	47	1.57	0.60					
Post	47	1.72	0.25					
I can list 5 ways poverty adversely affects lives and learning.				0.78	46	-5.88	<.001	Reject
Pre	47	1.17	0.71					
Post	47	1.64	0.28					
I can name 3-5 mindsets or practices that perpetuate inequity in the classroom.				0.72	46	-5.98	<.001	Reject
Pre	47	0.89	0.71					
Post	47	1.40	0.29					
I can list 3-5 ways to "level the playing field" in the classroom.				0.81	46	-6.10	<.001	Reject
Pre	47	0.77	0.75					
Post	47	1.21	0.52					
I can debunk common stereotypes about people who live in poverty.				0.81	46	-8.66	<.001	Reject
Pre	47	0.72	0.77					
Post	47	1.38	0.42					

(continued)

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Question	<i>n</i>	<i>M</i>	<i>s</i> ²	<i>r</i>	<i>df</i>	<i>t</i>	<i>p</i>	<i>Decision</i>
I am confident in my ability to successfully teach all students.				0.87	46	1.35	0.18	Fail to reject
Pre	47	1.55	0.43					
Post	47	1.49	0.34					
I am professionally responsible for the learning of each of my students.				0.76	46	-2.66	0.01	Reject
Pre	47	1.72	0.51					
Post	47	1.94	0.06					
I make a positive difference in the lives of my students, despite the challenges many of them face.				0.77	46	-1.27	0.21	Fail to reject
Pre	47	1.68	0.48					
Post	47	1.77	0.18					
I am willing to make changes in my practice, even changes of a significant magnitude.				0.70	46	-2.66	0.01	Reject
Pre	47	1.66	0.53					
Post	47	1.87	0.11					
Composite Instructional Strategies Score				0.90	46	-6.60	<.001	Reject
Pre	47	1.30	0.32					
Post	47	1.60	0.11					

Interview Results

Interview participants were asked questions that aligned with the research questions and the specific content of the PD sessions. I created a tool to organize and provide a framework for interpreting data. According to Miles, Huberman, and Saldana (2019), a *matrix* is s “a tabular

format that collects and arranges data for easy viewing in one place, permits detailed analysis, and sets the stage for later cross-case analysis with other comparable cases or sites” (p. 105).

Using examples provided by Miles et al. (2019) as a guide, I created a matrix to organize the raw data by a priori codes and frequency. A priori codes were derived from the conceptual framework (Chapter 1), the content validity matrix (Appendix G), and the research questions. Additional codes were added as they emerged through the raw data analysis. Data included transcripts and field notes that were recorded during and immediately following interviews.

Three major categories emerged that were relevant to the research questions:

- Perspective on Poverty
- Instructional Strategies
- Professional Development

These data were further categorized into themes that were related to each overarching category.

These categories and related themes are summarized in Table 15.

Table 15

Categories and Attendant Themes

(a) Perspective on Poverty

- Personal experience
- Teaching experience
- Ability
- Judgment

(continued)

(continued)

Categories and Attendant Themes

(b) Instructional Strategies

- Relationship building
- High expectations
- Engagement

(c) Professional Development

- No prior training
 - Impact
 - Simulation
 - Overwhelming
-

Interview participants were asked questions regarding the origins of their beliefs about students from poverty and what they believed about poor students' ability to learn. Seven out of 10 teachers provided a response similar to the one given by Teacher E2: "All children are capable of learning." All teachers interviewed shared concerns about the challenges that students from poverty face. They described how the obstacles caused by poverty impacted students' achievement and how students from poverty begin school academically behind their wealthier peers. Teachers specifically mentioned concerns regarding language and reading deficits. Additionally, participants were asked how their beliefs were impacted by the PD. Four participants discussed having a better understanding of people from poverty, with more empathy for the challenges they face. Teacher A1 described the impact of the poverty simulation, stating, "... to go through the simulation and actually experience it, it was kind of eye-opening."

Participants answered six questions regarding their implementation of the instructional strategies that were presented during the PD. Six participants stated that they were focused on

making their instruction more engaging for students. Teacher C1 explained, “When I plan, I do go back to that (PD), and I do think about how can I make this, whatever the activity is, how can I make it more engaging? What strategies can I put in there to make sure that every kid is going to be engaged with that?” Teacher C2 stated, “It (PD) encouraged me to be a little bit more engaging.”

Interview participants were also asked to share their thoughts on how the training could be improved to better meet teachers’ needs. Multiple participants described the training as helpful and suggested that it be provided for all teachers instead of only for new teachers. Suggestions for change centered on the timing of the training. Several respondents discussed feeling overwhelmed by all the new teacher training that is provided by the school district. Participant C1 explained, “ Now that I've kind of got my feet under me and looking back, there are things that I would love to hear again because I just felt like I was so bombarded with everything that I couldn't take it all in.” Table 16 displays the interview findings, subthemes, and relationships between themes.

Table 16

Summary of Interview Findings

Themes	Subthemes	Frequency	Interpretations	Evidence from Teacher Interviews
Personal experience	Community	5	Beliefs about people from poverty are influenced by personal experiences prior to teaching.	I would say I didn't really have many ideas until my college experience of being in the Appalachian Mountains and really getting that classroom experience within multiple Title I schools. (B1)
Teaching experience	Teaching	7	Interactions with people from poverty may not occur until first teaching experience.	When I first started teaching...I don't feel like I personally had exposure to it. When I first started teaching, I started in Title I (school). (B2)
Ability	Learning	8	Perspectives may be shaped by perceptions about students' ability to learn.	Everyone, in my eyes, is on an equal playing field when it comes to the ability to learn and the ability to achieve their goals. (A1)
Judgment	Stereotypes	7	Perspectives may be shaped by biases.	I think lots of times those kids are judged and looked down upon... (C1)
Relationship Building	Trust	7	Trust is needed to build relationships with students.	It takes building that relationship, that trust. You can't let them down much, and when you do you (have) to own it. (D1)
	Knowledge of students	25	Spending time getting to know students fosters relationship building.	I take the time to sort of get to know important things about each kid. I let them talk about things that are going on with them so that I get to know who they really are... (C1)

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Themes	Subthemes	Frequency	Interpretations	Evidence from Teacher Interviews
	Empathy	6	Empathy instead of sympathy is a factor in relationship building.	I didn't have the same struggles as my first group of students who were truly coming from poverty. And so my inclination was to coddle them and to, "Oh. I feel bad for you. Let me try to make your life better," but as I've gotten older and as I've done this longer, I've learned it's not my job to feel bad for them and coddle them. It is my job to help them overcome it by learning skills to get out of this. (E2)
	Culture	5	Relationship building among students, like relationship building with students, fosters a culture that supports learning.	We always start with a morning meeting...we just work together as a class to build that community. (A1)
	Caring	6	Relationship building is dependent upon the teacher showing care and concern for students.	I tried to let them know no matter what is going on, I still love them. (A1)
	Respect	5	Relationship building is dependent upon the teacher showing respect for students.	I am a firm believer in when something is happening, no public humiliation. I will take that kid aside and talk to them separately and quietly, usually try to figure out kind of what started that behavior to begin with. (C1)
	Communication with parents	5	Relationship building with families and parents fosters relationship building with students.	Once you get their parents trusting you and know that you are not making assumptions or judgments about their child, then they're more supportive of you. (B2)
High Expectations	Communicates belief in students	8	High expectations for students can be communicated directly by telling students about one's belief in their potential.	Don't dumb it down...You don't have to make it lower for them...all children have the ability to learn so pointing that out to them like, "I know you can do it. I can see that you've got the potential." (A2)

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Themes	Subthemes	Frequency	Interpretations	Evidence from Teacher Interviews
	Communicates teacher will stick with students	8	Persevering with students through challenges communicates expectations.	I'm here. It's okay to make mistakes. We're going to make it through together. (C1)
	Consistent	4	Being consistent with expectations ensures access to rigorous curriculum and fosters perseverance.	The kiddos will rise up to the expectations if you lay it out clear and concise and you stay consistent. (B2)
Engagement	Learning with others	13	Intentional planning to allow students to communicate with others increases engagement.	I do a lot of turn-and-talk with your shoulder partner. (E1)
	Personal response	9	Intentional planning to allow students to share their thoughts increases engagement.	We do a lot of shoulder talks with our partners in our groups about how we feel about certain things, even if it's something that has actually happened in this classroom, to bring out some feelings. (D1)
	Authentic, real-world connections	7	Intentional planning that helps students see how content connects to real life increases engagement.	...it was a vocabulary lesson, and it was so engaging because it related so much about what you learn to the real world. (B1)
	Objectives	12	Providing clear learning goals increases student engagement.	I always start every lesson talking about our learning objectives. (B1)
	Why lesson is important	16	Explaining why the lesson is important by making connections to real life increases engagement.	I like to hear from the students, so why is this important? (C2)
	Criteria for Success	6	Providing clear descriptions of content mastery increases student engagement.	I always post on my whiteboard what our objectives are for the day, how they'll know they can be successful. (C1)

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Themes	Subthemes	Frequency	Interpretations	Evidence from Teacher Interviews
PD	No Prior Training	5	PD for teaching students from poverty was new to half of the respondents.	I've been to a lot of PDs in my lifetime. I've never been to one like that...I like that it was such a focus here. (B1)
	Impact	8	PD provided participants with a better understanding of the challenges faced by students from poverty.	It just kind of lit a fire under me to really kind of focus on that equity and really fill in some gaps if they're not there. (B1) Definitely working on myself, being a little bit more understanding of (student challenges), even more so than I thought I was before. (C2)
	Simulation	6	Simulation of living in poverty was a meaningful activity that fostered empathy.	That was pretty eye-opening because I think even though it was a simulation, until you're really put in that position to have to pick and choose what bills you pay, how are you able to help your kids with the field trip, just the real-life application of it, I think, helped open my eyes some. (A2)
	Overwhelming	8	PD was overwhelming, resulting in decreased retention of strategies.	It was too much. I couldn't process it because it was just too much to take in. (E1)

Note. PD represents professional development.

Summary

The central research question of this study explored the extent to which practitioner-designed PD impacts teacher beliefs regarding students from poverty. Forty-seven elementary teachers new to the division participated in the study, completing practitioner-designed PD addressing teaching students from poverty. The sample population completed a survey before and after participation in training sessions designed by practitioners to encourage teachers to reflect on their beliefs about students from poverty and their knowledge of instructional strategies for working with these students. After administration of the post survey, a paired sample *t*-test was used to determine the impact of the training on teachers' beliefs and knowledge. A paired sample *t*-test is conducted when a group is given a pre and post survey (Jaeger, 1993). This statistical procedure is used to determine whether the mean difference between two sets of observations is zero.

The paired sample *t*-test demonstrated that there was a statistically significant difference in the mean scores (pre and post) for composite belief scores and composite instructional strategies scores. The results indicated a difference in responses in eight out of the 11 questions regarding beliefs. Similarly, the results showed the responses differed from the pre to the post survey on seven out of nine questions related to instructional strategies. Thus, the difference in means supports the conclusion that the PD had an impact on teachers' beliefs and instructional strategies.

As teachers completed training sessions, they provided feedback regarding strategies they intended to implement in their classrooms. They also provided feedback about strategies for which they wanted to receive additional support and training. Most participants indicated that they were likely to implement content from the four training sessions in their classrooms.

Ten teachers from schoolwide Title I elementary schools participated in one-on-one interviews following the training sessions. Through these interviews, data were collected on the origins of teachers' beliefs about people from poverty, their beliefs about students' ability to learn, the impact of the PD on teachers' beliefs about students from poverty, and the impact of the trainings on the instructional strategies implemented in the classroom. Additionally, data were collected on how to improve the training sessions.

Multiple teachers who participated in the PD sessions described them as impactful and helpful yet also overwhelming. Participants' perspectives about people from poverty were shaped by their personal and teaching experiences. Teachers believe that students have the ability to learn, but that their ability may be hindered by various factors such as home life and lack of resources. After the training, interviewees reported increased empathy for students from poverty. They indicated that, following the PD, they were implementing relationship-building activities, were communicating their belief in students, and were more intentional about selecting strategies to increase engagement.

Chapter 5

Findings, Implications, and Conclusions

Introduction

The purpose of this study was to discern the impact of practitioner-designed professional development (PD) on teacher beliefs about students from poverty. This inquiry also examined whether changes in these beliefs led to changes in instructional practices.

In the study, 47 elementary teachers participated in the PD and completed pre and post surveys regarding their beliefs and knowledge about working with students from poverty. Of those teachers, 10 volunteers from Title 1 schools were subsequently interviewed regarding their experiences. I analyzed data from the surveys, interviews, and PD session feedback to explore whether the teachers' beliefs changed after receiving the training and whether these changes led to adjustments in instructional practices.

Research Questions

The central research question for my study was: To what extent does practitioner-designed PD impact teacher beliefs regarding students from poverty? I also used the following sub-questions to guide my research:

1. What did teachers believe about students who live in poverty prior to participating in targeted PD?
2. How did teacher beliefs change after participating in targeted PD?
3. How did teachers adjust their use of instructional strategies after participating in targeted PD?

Summary and Discussion of Findings

Findings

The following findings emerged from the data collected in this study:

Finding 1. Prior to participating in the targeted PD, teachers held multiple negative views about people who live in poverty. Analysis of pre-survey responses revealed that 29 out of 47 teachers (62%) believed that people who live in poverty do not value education. Fifteen teachers (32%) believed people are likely in poverty due to weak moral character or poor choices. Seventeen teachers (36%) indicated that people from poverty work fewer hours than those in the middle class. (Table 13 in Chapter 4 includes the results of the paired sample *t*-test for individual and composite scores related to beliefs.)

Parrett and Budge (2009) maintained that “too many educators continue to believe that people who live in poverty share a common set of beliefs, values, attitudes, and behaviors such as a poor work ethic” and apathy toward school (p. 26). Gorski (2008) agreed, claiming that educators who believe that impoverished people do not value education will not take responsibility for addressing educational inequalities. When educators define students in terms of weaknesses rather than strengths, they tend to hold low expectations for students which can negatively impact achievement.

Finding 2. Following the targeted PD, teachers held more positive views of people who live in poverty. After participating in the targeted PD, teachers’ perspectives changed for eight out of the 11 questions pertaining to beliefs. There was also a statistically significant difference between participants’ composite scores on questions pertaining to beliefs. Post survey results revealed that more teachers believed that poverty is not primarily caused by weak moral character or poor choices (MD = 0.17; $p = .003$). Additionally, a greater number of teachers agreed that people who live in poverty do not share a common culture (MD = .28; $p < .001$). More teachers indicated that they believed people who live in poverty value education as a means for breaking the cycle of poverty (MD = .64; $p < .001$) and supported the belief that

people in poverty work, on average, more hours than those in middle class ($MD = .30$; $p < .001$). A greater number of teachers believed it is possible to know and understand the adverse effects poverty has on their students ($MD = .15$; $p = .007$). More teachers also indicated a belief that poverty adversely affects people's lives in probable and identifiable ways ($MD = .09$; $p = .04$). (Table 13 in Chapter 4 includes the individual and composite score results related to beliefs.)

Feedback collected during PD sessions revealed that teachers were likely to implement strategies for communicating key messages regarding their positive belief in students. All participants indicated that they would likely communicate to students the importance of the work, and 98% of teachers indicated they would likely communicate to students that “I won’t give up on you.” (Tables 9 - 12 show participant feedback from PD Sessions. The tables in Chapter 4 include results from PD sessions regarding beliefs.)

Interview responses indicated that teachers’ beliefs were positively impacted by the training sessions. Responses revealed that 8 out of 10 teachers interviewed believed that all students have the ability to learn, even though their learning may be impacted by a lack of access to resources. There were seven individual mentions of teachers’ concerns about stereotypes and biases regarding students from poverty. Eight participants indicated that their beliefs were impacted by the training, and these participants described having a better understanding of the challenges faced by students from poverty. Four out of 10 teachers described how the PD played a role in increasing their empathy rather than sympathy for students from poverty.

It is important for educators to examine their beliefs in light of conflicting theories about poverty because their beliefs impact the strategies they implement in their classrooms and thus their students’ success. Gorski (2008) suggested that operating from the structural-institutional perspective - understanding poverty as the confines placed on individuals by limited

opportunities and resources imposed by the economic, political, and social systems in which they live (Bradshaw, 2006) - will allow teachers to have greater success when working with students from poverty.

High teacher expectations are more powerful for and have a larger impact on students from poverty as compared to students not from poverty (Budge & Parrett, 2019). Dell'Angelo (2016) showed that teachers' thinking about barriers to learning is a strong predictor of student achievement. Teachers' beliefs about students can become a child's reality in the classroom because those beliefs often predict student achievement (Dell'Angelo, 2016; Gorski, 2018; Jensen, 2009). Exploring facts about people from poverty can reshape teachers' perspectives, allowing them to know and understand their students without formulating stereotypes.

Finding 3. Following the targeted PD, teachers reported implementing specific strategies to teach students from poverty. Post survey results revealed a significantly statistical difference from pre survey scores for seven out of the nine questions related to instructional strategies and teacher knowledge, and this was reflected in a statistically significant difference between pre and post survey composite scores for instructional strategies. (Table 14 in Chapter 4 includes the individual and composite score results related to instructional strategies.)

After the PD, survey results revealed that more teachers could explain why their expectations of students matter and how they influence the kind and quality of learning opportunities they provide ($MD = .15$; $p = .02$). More teachers indicated that they were able to identify multiple ways poverty adversely affects lives and learning ($MD = .47$; $p < .001$) and were able to identify practices that perpetuate inequity in the classroom ($MD = .51$; $p < .001$). A greater number of teachers indicated they were able to identify multiple strategies for leveling the playing field for students from poverty ($MD = .45$; $p < .001$). Importantly, survey results

showed that teachers were more likely to believe that they are professionally responsible for the learning of each of their students ($MD = .45$; $p = 0.01$) and willing to make changes in their teaching practice, even changes of a significant magnitude ($MD = .21$; $p = 0.01$).

Feedback collected during the training sessions indicated that participants were likely to implement the instructional strategies that were addressed. The PD sessions included 48 topics pertaining to instructional strategies, including building relationships with students, using a variety of effective instructional strategies, engaging and maintaining students in active learning, providing clear feedback to students, and using data to guide instruction. More than 50% of participants indicated that they were likely to implement 47 of the 48 topics without further training or support (the one exception was communicating with parents in a way that demonstrates an awareness of parents' view; see Conclusions, p.118). All teachers indicated that they were likely to implement strategies to build trust and respect and to show courtesy to students. All teachers also indicated that they would set high expectations for students by communicating the importance of the work. Ninety-six percent of participants responded that they were likely to communicate to students their belief in their students' ability and their willingness to help them persevere. (Tables 9 -12 in Chapter 4 summarize feedback from PD sessions. All PD sessions contained content related to instructional strategies for teaching students from poverty.)

Interview responses indicated that teachers had implemented multiple instructional strategies from the training sessions. During their interviews, participants frequently discussed strategies for building relationships, mentioning their use of techniques to gain knowledge about students 25 times. Six out of 10 teachers indicated that they implemented engaging tasks that they learned during the PD. Teachers referred to creating engaging lessons allowing students to

learn with others 13 times throughout the interviews. Explaining why the lesson is important was described 16 times, and communicating the lesson's objective as a means to make lessons more engaging was mentioned 12 times.

Implementing effective instructional strategies such as holding high expectations and building relationships with students will yield an increase in achievement (Budge & Parrett, 2018; Gorski, 2008; Jensen, 2009). Marzano et al. (2001) confirmed that reinforcing effort and holding high expectations are high-yield strategies for increasing student achievement.

Payne (2008) declared that building relationships of respect is a key intervention for raising achievement among low-income students. Researchers agree that holding high expectations for student work and curriculum is an instructional strategy that communicates what teachers believe about students and impacts student achievement (Bomer et al., 2008; Budge & Parrett, 2018; Gorski, 2008, 2018; Jensen, 2009). Gorski (2013) emphasized the importance of expectations and declared that when teachers believe that all their students are capable of reaching equal heights, their eyes are opened to the unique capabilities of each child as well as to their potential struggles. Schlechty (2011) and Antonetti and Garver (2015) maintained that when teachers plan lessons that include engaging qualities, student achievement will increase.

Other Findings

Finding 5. Many teachers have not received training on how to work with students from poverty. Five out of 10 teachers interviewed indicated that they had no prior training for teaching students from poverty; 28 out of 47 teachers surveyed after the PD indicated the same. All teachers interviewed shared concerns about the challenges that students from poverty face. They described how the obstacles caused by poverty impacted students' achievement and how students from poverty begin school academically behind their wealthier peers. Interviewees

specifically mentioned concerns regarding language and reading deficits. Teacher training for working with students from poverty would better prepare educators to address these barriers.

Gorski (2018) suggested that training is necessary to ensure that teachers have an understanding of the students they teach, have an opportunity to thoroughly examine their own beliefs and biases, and have knowledge of effective instructional strategies to help poor students succeed. Training teachers to examine their beliefs about students from poverty can lead to the increased implementation of effective instructional strategies in the classroom for helping poor students achieve. Budge and Parrett (2018) stated, “Stereotypes about people in poverty are deeply embedded in our society and influence our mental maps” (p. 21). When students in poverty are struggling in school, they may choose to internalize a teacher’s belief in their potential in one of two ways: as a means to protect themselves and their pride, or as motivation to offset other risk factors in their lives (Gregory & Huang, 2013).

Finding 6. The structure of teacher PD matters. Six out of 10 teachers interviewed explained how the poverty simulation from the PD impacted their beliefs about impoverished students. Interviewees also suggested that including additional simulations of living in poverty and teaching students from poverty would improve the PD. Eight out of 10 teachers interviewed indicated that the PD was impactful but overwhelming. They indicated that having multiple opportunities to participate in the training over a period of time would be helpful in cementing their learning. After each PD session, teachers consistently indicated a desire for additional support with training topics, highlighting the need for extending teachers’ learning experiences over a longer period of time than the study allowed.

Teachers must be given the opportunity to learn about students from poverty and the challenges they face. Bennett (2008) proposed that public school educators, rather than avoiding

this major issue, should study poverty and its impact on the school and community, thus changing their thinking and prompting them to action. Lindsey, Karns, and Myatt (2010) concurred, asserting that poverty should be a visible topic in schools. Professional development is key to helping teachers learn and achieve success with their students (Guskey, 2000). Training is most effective when strong leaders develop a culture in which continual learning is considered essential (Moore, Kochan, Kraska, & Reames, 2011). Because leaders can create policy and be the impetus for change (Schlechty, 2002), they need to be involved in supporting professional learning experiences for educators. Grant, Stronge, and Popp (2008) maintained that the teacher is the single most influential school factor affecting student achievement, and a relationship exists between continuing teacher professional development and student learning.

Implications for Practice

The findings of this study have numerous implications for school administrators and higher education leaders who develop and implement PD that addresses teaching students in poverty. These include the following:

- Provide training for preservice teachers preparing them to work with students from poverty. As indicated in finding 5, multiple interviewees stated that they had not had explicit training in college for working with impoverished students. Additionally, many shared that they had not worked with students from poverty until their first year of teaching. Without specific training, teachers will struggle to meet the needs of students from poverty.
- Include poverty simulations and real-world scenarios that provide an authentic sense of what it is like to be a student from poverty and a teacher working with impoverished students. As reported in finding 6, interview participants indicated that

- the poverty simulation was the most impactful activity of the training, and that including additional authentic scenarios would improve future trainings. When teachers understand how students perceive themselves, they can help students change negative self-thoughts.
- Include explicit opportunities for teachers to explore the origins of their beliefs and how those beliefs impact student achievement. As indicated in findings 1 and 2, teachers held more positive views of students from poverty after the training. Budge and Parrett (2019) explained that teachers must know who they are and know their own biases in order to disrupt poverty. The results of the current study indicate that beliefs can change and that it is possible for educators to know and understand the impacts of poverty on students.
 - Include explicit strategies for making student work engaging. As reported in finding 4, the survey results, PD session feedback, and interview responses indicated that teachers recognize the importance of, and subsequently implemented, strategies to make instruction engaging. Jensen (2009) maintained that students raised in poverty are subject to stressors that undermine school behavior and performance. Therefore, it is especially important to provide teachers with strategies to engage students from poverty in learning.
 - Include explicit strategies for building relationships with students and families. As reported in finding 4, teachers shared that these strategies were especially important to them when working with students from poverty. Building relationships with students will yield an increase in achievement (Budge & Parrett, 2018; Gorski, 2008; Jensen, 2009). Teachers recognize the importance of relationship building and

- knowing their students. Interview and PD feedback responses from this study, however, indicated that relationship-building strategies were not consistently integrated throughout the school day. Strategies for building relationships should be ongoing rather than only implemented at the beginning of the school year or day.
- Consider action-research designs for creating and implementing PD. Action research is practical: it provides information that helps inform decision-making and is directly relevant to classroom instruction and learning (Stringer, 2008). As reported in finding 6, teachers repeatedly requested additional support with PD topics. Practitioners with expertise in each topic were able to adjust training sessions to meet teachers' needs. Action research enriches organizations through questioning, experimentation, peer work, and collaboration, moving the organization in new directions (Mullen, Rodríguez & Allen, 2015).
 - Be aware of the needs of adult learners. Moorewood and Bean (2007) suggested that collaboration with peers through active learning makes PD more effective, and Guskey (2009) asserted that more time in PD does not equate to better PD. As reported in finding 6, several interviewees discussed feeling overwhelmed by the new teacher training provided by the school district. Participant C2 shared that there were "some aspects of this training that I would love now seeing because it's so evident, especially in my room. I would love to just go back and hear everything again because I feel like some of it went in and then I didn't have any capacity to keep it there." Interviewees indicated that training delivered over a period of time would have more effectively supported their learning needs.

- Involve principals and school leaders in teacher PD. Professional development is most effective when leaders develop a culture in which continual learning is considered essential (Moore, Kochan, Kraska, & Reames, 2011). As indicated in finding 6, teachers requested ongoing support. School leaders must recognize the value of high-quality, high-impact PD and encourage and facilitate their teachers' participation. Principals' support of PD initiatives increases the likelihood that learning will be implemented and sustained in their schools.
- Include strategies for building relationships among students. Budge and Parrett (2019) explained that creating classroom communities is an important part of building caring relationships for students from poverty. Nurturing classroom climates foster a sense of belonging and connectedness for impoverished students. As reported in finding 4, teachers shared that strategies for building relationships among students were especially important to classroom success. Such strategies were not emphasized in the training.
- Include trauma-informed pedagogy, acknowledging the role trauma has played in the lives of impoverished students. As indicated in finding 2, all teachers interviewed shared concerns about how poverty impacted student success. Hudson asserted that "Poverty is more than an income level; it is a socially constructed identity that leaves scars of psychological impoverishment" (p. 111). Trauma-informed training can help teachers effectively contend with the adversity that impoverished students face.
- Ensure that training is job-embedded. As reported in finding 6, interview responses indicated that teachers recognized the need for and desired continuous support for teaching students from poverty. Teacher A2 shared the importance of ongoing

support, stating “keeping (poverty PD) at the forefront (is important) because we know in education, something can be really big for a year, and you do all this training on it, and all this work on it, and then there's no follow-up to it.” Job-embedded PD is the most effective PD structure and is connected to the use of longer-term strategies aimed at changing teaching practice and school culture (Croft et al., 2010; DuFour, 2004; Lieberman, 1995). Grant et al. (2008) asserted that a relationship exists between continuing teacher PD and student achievement.

Policy Implications

The results of this study have major implications pertaining to policy.

- School boards and policymakers should support ongoing training regarding poverty for all teachers. Professional development is key to helping teachers learn and achieve success with their students (Guskey, 2000). Fullan (1993a) suggests that teachers are sometimes resistant to change due to a lack of support, and as a result, have a lack of knowledge, skills, and abilities to implement new learning and strategies. As indicated in finding 6, multiple interview participants described this study’s PD as helpful. They suggested the training be provided for veteran teachers in addition to new teachers. Creating and implementing policy that requires all teachers to explore their beliefs about students from poverty and to learn effective instructional strategies for working with these students would foster teacher efficacy. People change their practice after they have developed mastery, and mastery takes time (Fullan, 1993b).
- School boards and policymakers should examine inequitable education practices and create policies that abolish those practices. As indicated in finding 2, multiple teachers were concerned about students from poverty being stereotyped and how

those views impact student success. Students who struggle are more likely to be recommended for retention and special education services. Gorski (2008) asserted that some policies and practices manufacture low achievement for students in poverty. School boards must confront policies and practices that reinforce low expectations such as retention, tracking, and inappropriately assigning students in poverty to special education.

- Policymakers and school boards should implement policies to support universal pre-kindergarten programs. As indicated in finding 2, teachers were concerned about challenges that students from poverty face. One challenge that was repeated in interviews was the gap in reading and vocabulary skills that impact children from poverty. Budge and Parrett (2018) observed that students from poverty usually come to school with fewer readiness-to-learn skills than other children who have had different experiences. As a result, the achievement gap usually widens as students go through school. Likewise, Brooks-Gunn and Duncan (1997) maintained that “children who experience poverty during their preschool and early school years have lower rates of school completion” than students who experience poverty only in later years (p. 55). Due to the potential of early intervention to reduce poverty’s impact on children, policymakers should support and fund early childhood programs such as pre-kindergarten.

Conclusions

Practitioner-designed PD can positively impact teacher beliefs regarding students from poverty. The survey results, training session feedback, and interview responses of this study showed that, by helping teachers identify their biases and explore and uncover the origins of their

beliefs, practitioner-designed PD can positively change those beliefs. Teachers' beliefs about students from poverty changed following the training sessions. Interviewees recognized that stereotypes exist about people from poverty. Several teachers discussed having a better understanding of students from poverty, as well as increased empathy, rather than sympathy, for those students. Teachers' beliefs about people experiencing poverty inform how they teach and how they interact with students (Gorski, 2018). The training specifically addressed teachers' beliefs, examined multiple perspectives about the causes of poverty, and provided facts about people living in poverty.

Teachers will adjust their use of instructional strategies after participating in practitioner-designed PD. Survey responses indicated that, following the PD, teachers were more willing to make changes in their practice and could identify strategies for reaching students from poverty. Training session feedback indicated that most teachers were likely to implement 47 out of 48 topics that pertained to instructional strategies. The topic that teachers were not likely to implement was communicating with parents in a way that demonstrated the parents' view. The design team recognized that this topic had not been sufficiently addressed during the training and recommended revisions for future implementation. Interview participants described their increased focus on providing engaging learning tasks, communicating objectives and reasons for lessons, and planning with the intent to ensure that content has authentic, real-life connections. Antonetti and Garver (2015) emphasized the importance of planning engaging work for students from poverty and suggested that rigorous work in an emotionally safe environment may increase engagement for students.

Practitioner-designed PD is effective because it allows the design team to analyze feedback and immediately adjust training topics to meet specific teacher needs. Professional

learning sessions were continually adjusted and adapted to include reviews of strategies for which teachers requested additional support. Design team members implemented PD sessions that were matched to their expertise. Thus, teachers received scaffolded support, that they requested, from experts.

Future Research

Findings from this study exposed the need for future research around the topic of practitioner-designed PD for teaching students from poverty:

- A study similar to the current one, conducted with a larger population, could further discern the impacts of practitioner-designed PD on teacher beliefs and resulting changes in practice related to students from poverty. A study that includes high-poverty school districts would identify the impacts of the PD on a greater number of teachers who work with a larger percentage of students in poverty.
- A study that includes interviews with administrators could more fully identify strategies that teachers implement in the classroom. This would provide data about observed strategies from the administrator perspective.
- A study that includes student interviews could better identify strategies that teachers implement in the classroom following PD. This would provide insight into how students perceive the implementation of strategies and the impact on their learning.
- An investigation that includes grades 6-12 teachers could explore secondary teacher perspectives on working with students from poverty.
- To fully explore the effectiveness of PD designed to impact teachers' beliefs and practice related to students from poverty, a similar study could be conducted that investigates student achievement. Standardized test results of students taught by

trained teachers could be compared to the results for students of teachers who do not participate in the PD.

Researcher Reflections

During my career as an educator, I have served as a teacher and principal at Title I schools. I have also served as a director with the responsibility to support schools designated as needing improvement due to the gap in test scores between their economically disadvantaged and non-economically disadvantaged students. It is perplexing that some high-poverty schools are successful while others are not. Suber (2012) confirmed my observation, declaring that high-poverty, high-performing schools do exist. Throughout my service as an educator, this question repeatedly arose: Why do some teachers and some schools help students in poverty learn and achieve at high levels while others struggle?

I have observed teachers who implemented effective instructional strategies, yet their students from poverty were not successful. Conversely, I have observed teachers who implemented limited effective instructional strategies and their students from poverty were successful academically. This led me to conclude that the teacher's belief regarding students and their abilities to succeed was the key difference.

This study revealed that there are complex factors related to teachers' beliefs that impact the achievement of students from poverty. The origins of teachers' beliefs, their willingness to confront those beliefs, and how those beliefs impact their relationships with students and families are multifaceted. One person's experience with poverty may be very different from another's. There is no mindset or culture of poverty (Gorski, 2018, October). However, I found that there are teachers who still believe that people from poverty share a set of negative attributes. Following the training, two out of 10 teachers (20%) still did not believe that students could

learn and achieve at high levels due to the challenges of living in poverty. Teachers must be given the opportunity to explicitly identify their beliefs about children from poverty, where those beliefs originate, and how those beliefs impact student achievement. Providing teachers with the opportunity to participate in poverty simulations and scenarios is an impactful technique for fostering teachers' understanding of and empathy for impoverished students.

Despite the achievement gap that still exists between non-poor students and those from poverty, there is hope. Jensen (2009) was right: "Being raised in poverty is not a sentence for a substandard life" (p. 26). Poor children can learn and achieve at high levels. The success of economically disadvantaged students is largely connected to their teachers' beliefs. We can change the way we act by changing the way we think; educators who have the opportunity to examine their beliefs can change those beliefs, as well as their instructional practices.

Policymakers and leaders should ensure that teachers are provided with the training they need to meet the challenges students may have due to the impact of poverty.

We should not underestimate the influence of teachers. They are the single most influential school factor affecting student achievement and have a tremendous opportunity to impact students' lives. My seventh-grade teacher changed my life because she told me that she believed I could go to college someday. As a result, I am a first generation high-school and college graduate. This study showed that thoughtful, practitioner-designed PD can positively impact teachers' beliefs and equip them with effective instructional strategies, giving them the tools they need to help students from poverty succeed. Teachers and leaders must act with a sense of urgency. "If all of us did all that we could" (Budge & Parrett, 2019), we would help a greater number of students break the cycle of poverty.

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Appendix A

IRB Approval Letter



Division of Scholarly Integrity and
Research Compliance
Institutional Review Board
North End Center, Suite 4120 (MC 0497)
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-3732
irb@vt.edu
<http://www.research.vt.edu/sirc/hrpp>

MEMORANDUM

DATE: July 29, 2019

TO: Carol Ann Mullen, Barbara Martin Wickham

FROM: Virginia Tech Institutional Review Board (FWA00000572, expires January 29, 2021)

PROTOCOL TITLE: Designing Effective Professional Development for Teaching Students in Poverty: Impact on Teacher Beliefs and Classroom Practice

IRB NUMBER: 19-443

Effective July 26, 2019, the Virginia Tech Human Research Protection Program (HRPP) and Institutional Review Board (IRB) determined that this protocol meets the criteria for exemption from IRB review under 45 CFR 46.104(d) category(ies) 2(ii).

Ongoing IRB review and approval by this organization is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these activities impact the exempt determination, please submit a new request to the IRB for a determination.

This exempt determination does not apply to any collaborating institution(s). The Virginia Tech HRPP and IRB cannot provide an exemption that overrides the jurisdiction of a local IRB or other institutional mechanism for determining exemptions.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<https://secure.research.vt.edu/external/irb/responsibilities.htm>

(Please review responsibilities before beginning your research.)

PROTOCOL INFORMATION:

Determined As: Exempt, under 45 CFR 46.104(d) category(ies) 2(ii)
Protocol Determination Date: July 26, 2019

ASSOCIATED FUNDING:

The table on the following page indicates whether grant proposals are related to this protocol, and which of the listed proposals, if any, have been compared to this protocol, if required.

Date*	OSP Number	Sponsor	Grant Comparison Conducted?

* Date this proposal number was compared, assessed as not requiring comparison, or comparison information was revised.

If this protocol is to cover any other grant proposals, please contact the HRPP office (irb@vt.edu) immediately.

Appendix B

Letter to Superintendent to Confirm Permission to Conduct Study

Dear Superintendent _____,

Thank you for your continued support of my doctoral work in the Educational Leadership and Policies Studies program at Virginia Tech. I am working under the direction of Dr. Carol Mullen. I have proposed a research study that will be my doctoral dissertation. The purpose of this letter is to provide an overview of the study and confirm your permission to conduct the research.

The purpose of this mixed-methods study is to discern the impacts of practitioner-designed professional development on teacher beliefs about students from poverty. Beliefs are important because they mold thoughts and impact the instructional strategies teachers choose to implement in the classroom. Existing studies do not explore multiple perspectives on poverty. So, this study will focus on the creation and implementation of professional development designed to help teachers explore their beliefs about students from poverty, because beliefs impact classroom practices, which impact student achievement.

The study will investigate what teachers believe about students who live in poverty, and if beliefs change after receiving professional development on teaching students from poverty, based on a combination of research from multiple studies on educators' perspectives and effective teaching strategies for poor students. The study will also examine whether changes in these beliefs lead to changes in instructional practices.

With your permission, I would like to interview 5 – 15 volunteers who participated in the training and who teach at our Title 1 elementary schools. Data gathered from the interviews will be analyzed for commonalities, differences, and patterns. Information collected in this study may be beneficial to other educators who teach students from poverty.

Thank you again for your continued support of this work. Please do not hesitate to ask should you have any questions regarding this study.

Sincerely,

Barbara M. Wickham
Doctoral Candidate
bmwbarbi@vt.edu
540-239-0539

Appendix C

CITI Training Completion Certificate

		Completion Date 20-Feb-2019 Expiration Date 19-Feb-2022 Record ID 30637122
This is to certify that:		
Barbara Wickham		
Has completed the following CITI Program course:		
Social & Behavioral Research (Curriculum Group) Social & Behavioral Research (Course Learner Group) 1 - Basic Course (Stage)		
Under requirements set by:		
Virginia Polytechnic Institute & State University (Virginia Tech)		
		 Collaborative Institutional Training Initiative
Verify at www.citiprogram.org/verify/?we10c3edf-9894-49f5-a0b5-d5c98e364721-30637122		

Appendix D

Email Seeking Design Team Members

May 23,2019

Dear Literacy Team,

As you know, I am working to create sustainable training to assist teachers in helping students from poverty achieve academically. My vision is to see this training implemented each year for our new teachers, as our population for free/reduced lunch increases and the achievement gap remains.

Below you will see a synopsis of my dissertation study. I am looking for volunteers who would like to assist with this work for the 2019-20 school year and new teacher training. Please RSVP to this email if you are interested in working with me to create this professional development opportunity.

Thanks so much,

Barbara

Title: Designing Effective Professional Development for Teaching Students in Poverty: Impact on Teacher Beliefs and Classroom Practice

Purpose of the Study

The purpose of this mixed-methods study is to discern the impacts of practitioner-designed professional development on teacher beliefs about students from poverty. Beliefs are important because they mold thoughts and impact the instructional strategies teachers choose to implement in the classroom. Existing studies do not explore multiple perspectives on poverty. So, this study will focus on the creation and implementation of professional development designed to help teachers explore their beliefs about students from poverty, because beliefs impact classroom practices, which impact student achievement.

The study will investigate if teacher beliefs change after receiving professional development on teaching students from poverty, based on a combination of research from multiple studies on educators' perspectives and effective teaching strategies for poor students. The study will also examine whether changes in these beliefs lead to changes in instructional practices.

Research Questions

The central research question for my study is: To what extent does practitioner-designed professional development impact teacher beliefs regarding students from poverty? I will also attempt to address the following sub-questions:

1. What do teachers believe about students who live in poverty?
2. How do teacher beliefs change after teachers participate in the professional development?
3. How do teachers adjust their use of instructional strategies after participating in the targeted professional development?

Barbara M. Wickham
Doctoral Candidate

Appendix E

Poverty Planning Team Meeting 1 Agenda

June 4, 2019

2:30 PM - 4:00 PM

Agenda:

- 1) Welcome
- 2) Attendance:
- 3) Purpose of Meetings
 - 4) Synopsis of Study
 - 5) Required Content:
 - Survey
 - Beliefs: what, where, why
 - Facts
 - Instructional Strategies
 - High Expectations
 - Relationships
 - Engagement
 - Communicating components of effective lesson plan (objective; criteria for success; why important; itinerary)
 - Data & Intervention
 - Review of Documents:
 - Instrument for Checking Content and Validity of Professional Development
 - Instructional Strategies Feedback Form
 - Choose one area you feel comfortable implementing on your own.
 - Choose one area that you would like to receive additional support.
 - Choose one area you would like to see in future trainings.
 - Instrument for Checking Content Validity of Interview Questions
 - Share Materials
 - Packet
 - Books
 - DVD
- 6) Session 1: Friday, August 2 - 11:30 - 12:00
 - Survey (B)
 - Content:
- 7) Session 2: Tuesday, August 6 (1 hour, 10 min)
 - Content? Beliefs, Reflections (J), Relationships (K)

- 8) Session 3: Wednesday, August 7 (1 hour, 10 min)
 - Content? Lesson Planning (M), Instructional Strategies (J)
- 9) Session 4: Thursday, October 3 (55 min)
 - Content? Classroom Chart, Name Students, Review Beliefs, (S) Instructional Strategies (K)
- 10) Session 5: Tuesday, October 8 (55 min)
 - Content? Data & Interventions, Feedback (M&J&K)
- 11) Additional Matters?
- 12) Next Meeting: Scheduled Next Meeting for July 18

Appendix F

Instrument for Checking Content and Validity of Professional Development

Research Question	Is Addressed in the Training (Yes, No, Partially, N/A) If No, Suggest How to Address	Effective Instructional Strategies	Is Addressed in the Training (Yes, No, Partially) If No, Suggest How to Address	Characteristics of Effective PD	Is Addressed in the Training (Yes, No, Partially) If No, Suggest How to Address
Q1: To what extent does practitioner-designed professional development impact teacher beliefs regarding students from poverty?		Build and foster caring relationships		Has clear goals; is focused and intentional	
Q2: What do teachers believe about students who live in poverty?		Design classroom activities to engage students in schoolwork		Addresses needs of adult learners	
Q3: How do teacher beliefs change after teachers participate in the professional development?		Unlearn misperceptions about poverty		Scheduled during the teachers' workday	
Q4: How do teachers adjust their use of instructional strategies after participating in the targeted professional development?		Use data to guide instructional decisions and targeted interventions		Addresses how to use instructional materials	
		Help teachers reflect on their own beliefs and values to determine what shapes their perspective		Addresses how to teach content	
		Help teachers see the power of their perceptions		Addresses how to teach the students with whom teachers work	

		Help teachers develop an internal locus of control and take personal responsibility for student learning		Addresses how to engage students	
		Make real-world connections for why schoolwork is important		Addresses how to build relationships	
		Communicate and follow up on mastery objective		Provides opportunities for active learning, collaboration and dialogue with peers	
		Provide specific feedback on effective effort and specific strategies that encourages student growth		Is related to organizational improvement and supported by policy	

Appendix G

Instrument for Checking Content Validity of Interview Questions

Research Question	Interview Question	Interview Question Aligns with Research Question Q1, Q2, Q3, Q4, Q5, or N/A	Does not align, reword the item	Suggested Rewording
Q1: To what extent does practitioner-designed professional development impact teacher beliefs regarding students from poverty?	Q1: Briefly highlight your teaching experiences this year.			
Q2: What do teachers believe about students who live in poverty?	Q2: Where do your ideas about poverty and people from poverty come from?	Research Q2		
Q3: How do teacher beliefs change after teachers participated in the professional development?	Q3: What do you believe about poor students' ability to learn? How did you come to your beliefs?	Research Q2		
Q4: How do teachers adjust their use of instructional strategies after participating in the targeted professional development?	Q4: How were your beliefs about students from poverty impacted by the professional development that you received this year?	Research Q1, Q3		
	Q5: Describe the relationship building activities that you implemented in your classroom this year.	Research Q4		
	Q6: What are some other ways that you worked to build relationships with your students?	Research Q4		
	Q7: What are some strategies that you implemented to make your	Research Q4		

	instruction engaging for students?			
	Q8: How did you continually ensure clarity of objectives, criteria for success, and why the work is important for students?	Research Q4		
	Q9: How do you do communicate high expectations for student work?	Research Q4		
	Q10: How do you think the training you received for working with students from poverty impact achievement of the students in your classroom who may be impoverished?	Research Q1, Q4	X	Q10: How did what you learned in the training affect your choice of instructional strategies after participating in the targeted professional development?
	Q11: How do you think the training could be improved in the future to better meet the needs of teachers?			
	Q12: Is there any additional information that you want to share with me?			

Appendix H

Interview Questions

1. Briefly highlight your teaching experiences this year.
2. Where do your ideas about poverty and people from poverty come from?
3. What do you believe about poor students' ability to learn? How did you come to your beliefs?
4. How were your beliefs about students from poverty impacted by the professional development that you received this year?
5. Describe the relationship building activities that you implemented in your classroom this year.
6. What are some other ways that you worked to build relationships with your students?
7. What are some strategies that you implemented to make your instruction engaging for students?
8. How did you continually ensure clarity of objectives, criteria for success, and why the work is important for students?
9. How do you do communicate high expectations for student work?
10. How did what you learned in the training affect your choice of instructional strategies after participating in the targeted professional development?
11. How do you think the training could be improved in the future to better meet the needs of teachers?
12. Is there any additional information that you want to share with me?

Use probing questions as needed, such as the following:

Can you expand upon that idea?

Would you share an example?

Is there anything else that you would like to add?

Can you explain that further?

Appendix I

MCPS Poverty/Instructional Strategies Feedback Form Session

Highlight items in green that you feel comfortable implementing on your own. Highlight items in yellow for which you would like to receive additional support. Highlight items in pink that you would like to see in future trainings. This form is intended to provide feedback for professional growth; it is not evaluative.

Relationship Building: Demonstrates key traits to build relationships with students, thus establishing a climate of trust by being fair, caring, respectful, and enthusiastic.

Teacher behaviors/traits:

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Fairness | <input type="checkbox"/> Respect |
| <input type="checkbox"/> Appearance | <input type="checkbox"/> Realness |
| <input type="checkbox"/> Humor | <input type="checkbox"/> Re-establishing Contact |
| <input type="checkbox"/> Courtesy | <input type="checkbox"/> Active Listening |

Relationship Building: Builds positive, inviting, and professional relationships with parents/guardians through frequent and effective communication concerning students' progress.

Teacher behaviors/traits:

- | | |
|---|--|
| <input type="checkbox"/> Proactive communication | <input type="checkbox"/> Communicates in a way that demonstrates an awareness of a parents' view |
| <input type="checkbox"/> Positive communication | |
| <input type="checkbox"/> Empathetic communication | |

Beliefs: Sets high expectations for all students and communicates key messages.

Teacher behaviors:

- | | |
|---|--|
| <input type="checkbox"/> Communicates this is important | <input type="checkbox"/> Deals with students' errors in a way that dignifies student responses |
| <input type="checkbox"/> Communicates you can do it - with effective effort | <input type="checkbox"/> Sticks with students and helps them persevere through challenging tasks |
| <input type="checkbox"/> Communicates I won't give up on you | <input type="checkbox"/> All students participate |
| <input type="checkbox"/> Uses wait time 1 (the time between asking the question and receiving the answer) | <input type="checkbox"/> Uses statements to reframe students' self-doubting, negative statement |
| <input type="checkbox"/> Uses wait time 2 (the time after the student answers the question; this additional time allows for an extended response) | |

Instructional Strategies: Uses a variety of effective instructional strategies and engages and maintains students in active learning.

Teacher behaviors:

- Designs learning experiences that encourage students to give personal responses where multiple answers are possible
- Designs learning experiences that encourage students to learn with others, where they must share or compare responses with one another, and/or explain or combine one another's ideas
- Designs lessons that are authentic with real world connections
- Designs learning experiences that encourage students to create non-linguistic representations (kinesthetic, visual, etc.) and to show their thinking aloud
- Communicates the objective in terms students understand (**what**) and an itinerary for the day
- Communicates the criteria for success for the day's objective (**how** will I show I learned this)
- Communicates **why** the objective/lesson/activities are important

Feedback: Provides clear, timely, and effective feedback to students.

Teacher behaviors:

- Provides feedback on effective effort.
- Provides feedback on specific goals.
- Provides feedback on specific strategies.
- Provides feedback on failure in a way that it helps students grow

Feedback: Uses data to inform, guide, and adjust students' learning.

Teacher Behaviors:

- Analyzes data day-to-day to determine learning (Who has mastered, almost mastered, not mastered daily objectives?)
- Collects and records relevant data
- Re-teaches concepts based on data analysis
- Re-teaches using different strategies matched to specific student needs
- Reassess after implementing an intervention to determine the need for further intervention

Comments: _____

Appendix J

Poverty Planning Team Meeting 2 Agenda

July 18, 2019

2:30 PM - 4:00 PM

Agenda:

- 1) Welcome
- 2) Attendance:
- 3) Purpose of Meeting: Review Sessions for Content
- 4) Synopsis of Study
- 5) Required Content:
 - Survey Draft
 - Beliefs: what, where, why
 - Facts
 - Instructional Strategies
 - High Expectations
 - Relationships
 - Engagement
 - Communicating components of effective lesson plan (objective; criteria for success; why important; itinerary)
 - Data & Intervention
 - Review of Documents:
 - Instrument for Checking Content and Validity of Professional Development
 - Instructional Strategies Feedback Form
 - Choose one area you feel comfortable implementing on your own.
 - Choose one area that you would like to receive additional support.
 - Choose one area you would like to see in future trainings
- 6) Share Materials
 - Packet
 - Books
 - Other resources: Folder, Gorski Conference, Data Chart
- 7) Share & Discuss Sessions for Content:
 - a) Session 1: Friday, August 2 - 11:30 - 12:00
 - Survey (B)
 - Content:
 - b) Session 2: Tuesday, August 6 (55 min)
 - Content? Beliefs, Reflections (J), Relationships (K)
 - Where do beliefs come from?
 - Theories of poverty.
 - Explore facts and case studies.

- Confront negative stereotypes/biases.
 - Strategies for building relationships with students and families.
 - Foundational beliefs: I believe in you; you can do it with effective effort; I won't give up on you
- c) Session 3: Wednesday, August 7 (50 min)
- Content? Lesson Planning; communicate components of plan (M), Instructional Strategies (J)
 - High expectations for curriculum and student work
 - Engaging qualities of tasks
- d) Session 4: Thursday, October 3 (55 min)
- Content? Classroom Chart, Name Students, Review Beliefs, (S) Instructional Strategies (K)
 - Know your students (S)
 - Growth mindset (K)
 - High expectations (K)
- f) Session 5: Tuesday, October 8 (55 min)
- Content? Data & Interventions, Feedback (M & J)
 - Providing specific feedback that motivates and encourages student growth (Poverty Workshop #3 from last year) (M)
 - Using data to guide instruction: ex: look at a data sheet; identify who needs what; intervention; be more specific by grade level; explain intervention; data sheet is a fluid name chart;
 - Help teachers develop an internal locus of control and take personal responsibility for student learning (J)

8) Instructional Strategies Feedback Form - each session - July 31

The purpose of the feedback form is to allow teachers to indicate which strategies they believe they will fully implement on their own, for which strategies they would like to receive additional support, and which ones they would like to see in future trainings.

9) Additional Matters?

10) Next Meeting: Schedule after first 2 trainings

Appendix K

Feedback Form Session 2

MCPS Poverty Feedback Form: Beliefs & Relationships

Mark items with the number (1) that you are likely to implement in your classroom. Mark items with the number (2) for which you would like to receive additional support. Label items using the number (3) that you would like to see in future trainings.

Relationship Building: Demonstrates key traits to build relationships with students, thus establishing a climate of trust by being fair, caring, respectful, and enthusiastic.

Teacher behaviors/traits:

- | | |
|--|--|
| <input type="checkbox"/> Fairness | <input type="checkbox"/> Positive Greetings |
| <input type="checkbox"/> Appearance | <input type="checkbox"/> Respect |
| <input type="checkbox"/> Humor | <input type="checkbox"/> Trust |
| <input type="checkbox"/> Courtesy | <input type="checkbox"/> Realness/current |
| <input type="checkbox"/> Empathy | <input type="checkbox"/> Re-establishing Contact |
| <input type="checkbox"/> Knowledge of all students | <input type="checkbox"/> Active Listening |

Relationship Building: Builds positive, inviting, and professional relationships with parents/guardians through frequent and effective communication concerning students' progress.

Teacher behaviors/traits:

- | | |
|--|--|
| <input type="checkbox"/> Implements proactive communication | <input type="checkbox"/> Communicates in a way that demonstrates an awareness of a parents' view |
| <input type="checkbox"/> Implements positive communication | <input type="checkbox"/> Ensures ongoing communication |
| <input type="checkbox"/> Implements empathetic communication | |

Beliefs: Sets high expectations for all students and communicates key messages.

Teacher behaviors:

- | | |
|---|--|
| <input type="checkbox"/> Communicates this is important | <input type="checkbox"/> Deals with students' errors in a way that dignifies student responses |
| <input type="checkbox"/> Communicates you can do it - with effective effort | <input type="checkbox"/> Sticks with students and helps them persevere through challenging tasks |
| <input type="checkbox"/> Communicates I won't give up on you | <input type="checkbox"/> Ensures all students participate |
| <input type="checkbox"/> Uses wait time 1 (the time between asking the question and receiving the answer) | <input type="checkbox"/> Uses statements to reframe students' self-doubting, negative statements |
| <input type="checkbox"/> Uses wait time 2 (the time after the student answers the question; this additional time allows for an extended response) | |

Comments: _____

Appendix L

Feedback Form Session 3

MCPS Poverty Feedback Form: Lesson Planning & Instructional Strategies

Mark items with the number (1) that you are likely to implement in your classroom. Mark items with the number (2) for which you would like to receive additional support. Label items using the number (3) that you would like to see in future trainings.

Instructional Strategies: Uses a variety of effective instructional strategies and engages and maintains students in active learning.

Teacher behaviors:

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Designs learning experiences that encourage students to give personal responses where multiple answers are possible <input type="checkbox"/> Designs learning experiences that encourage students to learn with others, where they must share or compare responses with one another, and/or explain or combine one another's ideas <input type="checkbox"/> Designs lessons that are authentic with real world connections | <ul style="list-style-type: none"> <input type="checkbox"/> Designs learning experiences that encourage students to create non-linguistic representations (kinesthetic, visual, etc.) and to show their thinking aloud <input type="checkbox"/> Communicates the objective in terms students understand (what) and an itinerary for the day <input type="checkbox"/> Communicates the criteria for success for the day's objective (how will I show I learned this) <input type="checkbox"/> Communicates why the objective/lesson/activities are important |
|---|--|

Comments: _____

Appendix M

Poverty Planning Team Meeting 3 Agenda

August 21, 2019

4:00 PM - 5:00 PM

Agenda:

- 1) Welcome
- 2) Attendance:
- 3) Purpose of Meeting: Review Feedback and Adjust Future Trainings
- 4) Synopsis of Study: Designing Effective Professional Development for Teaching Students in Poverty: Impacts on Teacher Beliefs and Classroom Practice
- 5) Required Content:
 - Survey Draft
 - Beliefs: what, where, why
 - Facts
 - Instructional Strategies
 - High Expectations
 - Relationships
 - Engagement
 - Communicating components of effective lesson plan (objective; criteria for success; why important; itinerary)
 - Data & Intervention
 - Instrument for Checking Content and Validity of Professional Development
- 6) Review & Discuss Sessions for Content:
 - Review of Sessions 1, 2, and 3
 - a) Poverty Training Session Notes, Feedback, & Debrief
 - b) Session 4: Thursday, October 3 & Tuesday October 8 (55 min)
 - Content? Classroom Chart, Name Students, Review Beliefs, (S)
 - SPENT - 10 min (S) Send link prior to attending
 - Give Classroom Chart as Homework; Name Students
 - Review Myths (S) (15 min)
 - Growth mindset (K) (35 min)
 - High expectations Review (K)
 - Help teachers develop an internal locus of control and take personal responsibility for student learning (K)

c) Session 5: Thursday, October 3 & Tuesday October 8 (55 min)

- Content? Data & Interventions, Feedback (M&J)
 - Instructional Strategies (J) 25 min
 - Providing specific feedback that motivates and encourages student growth (Poverty Workshop #3 from last year) (M) 25 min
 - Using data to guide instruction: ex: look at student data; how will you provide appropriate intervention
 - Must Complete Survey Again 10 min

7) Content to Consider:

- Session 4:
 - SPENT Activity (Give link to teachers prior to attending)
 - Confronting Myths About Students from Poverty
- Session 5:
 - SPENT Activity Discussed
 - Power of Teacher Expectations
 - See Activity in Handout

8) Instructional Strategies Feedback Form

- Session 4
- Session 5

9) Additional Matters?

10) Next Meeting: Sept. 20 3:00 - 4:00

Appendix N

Poverty Planning Team Meeting 4 Agenda

September 20, 2019

3:00 PM - 4:00 PM

Agenda:

- 1) Welcome
- 2) Attendance:
- 3) Purpose of Meeting: Review Presentations for Last 2 Sessions
- 4) Synopsis of Study: Designing Effective Professional Development for Teaching Students in Poverty: Impacts on Teacher Beliefs and Classroom Practice

5) Required Content:

- Survey Draft
- Beliefs: what, where, why
- Facts
- Instructional Strategies
 - High Expectations
 - Relationships
 - Engagement
 - Communicating components of effective lesson plan (objective; criteria for success; why important; itinerary)
 - Data & Intervention
- Instrument for Checking Content and Validity of Professional Development

6) Review & Discuss Sessions for Content:

- Review of Sessions 4 & 5

a) Rotations

b) Session 4: Thursday, October 3 & Tuesday October 8 (60 min)

- Session 4:
 - SPENT Activity (S - 15min)
 - Give Classroom Chart as Homework; Name Students
 - Review Myths
 - Confronting Myths About Students from Poverty
 - Growth Mindset & High Expectations Review (K - 35 min)
 - Help teachers develop an internal locus of control and take personal responsibility for student learning (K)
 - Teachers are not consistently communicating the objective & criteria for success

c) Session 5: Thursday, October 3 & Tuesday October 8 (60 min)

- Content? Data & Interventions, Feedback (M&J)
 - Power of Teacher Expectations
 - Instructional Strategies (J) 25 min
 - Providing specific feedback that motivates and encourages student growth (M) 25 min
 - Using data to guide instruction: ex: look at student data; how will you provide appropriate intervention
 - Must Complete Survey Again 10 min

7) Instructional Strategies Feedback Form

- Session 4
- Session 5

8) Additional Matters?

9) Next Meeting: October 3 (After AM & PM Sessions)

Appendix O

Feedback Form Session 4

MCPS Poverty Feedback Form: Beliefs & Instructional Strategies

Mark items with the number (1) that you are likely to implement in your classroom. Mark items with the number (2) for which you would like to receive additional support. Label items using the number (3) that you would like to see in future trainings.

Relationship Building: Demonstrates key traits to build relationships with students, thus establishing a climate of trust by being fair, caring, respectful, and enthusiastic.

Teacher behaviors/traits:

- | | |
|--|--|
| <input type="checkbox"/> Empathy | <input type="checkbox"/> Trust |
| <input type="checkbox"/> Knowledge of all students | <input type="checkbox"/> Realness/current |
| <input type="checkbox"/> Respect | <input type="checkbox"/> Re-establishing Contact |
| | <input type="checkbox"/> Active Listening |

Beliefs: Sets high expectations for all students and communicates key messages.

Teacher behaviors:

- | | |
|--|--|
| <input type="checkbox"/> Communicates this is important | <input type="checkbox"/> Ensures all students participate |
| <input type="checkbox"/> Communicates you can do it - with effective effort | <input type="checkbox"/> Uses statements to reframe students' self-doubting, negative statements |
| <input type="checkbox"/> Communicates I won't give up on you | <input type="checkbox"/> Provides all students access to rigorous curriculum |
| <input type="checkbox"/> Deals with students' errors in a way that dignifies student responses | |
| <input type="checkbox"/> Sticks with students and helps them persevere through challenging tasks | |

Instructional Strategies: Uses a variety of effective instructional strategies and engages and maintains students in active learning.

Teacher behaviors:

- | | |
|---|---|
| <input type="checkbox"/> Communicates the objective in terms students understand (what) and an itinerary for the day | <input type="checkbox"/> Communicates the criteria for success for the day's objective (how will I show I learned this) |
| | <input type="checkbox"/> Communicates why the objective/lesson/activities are important |

Comments: _____

Appendix P

Feedback Form Session 5

MCPS Poverty Feedback Form: Data, Interventions, & Feedback

Mark items with the number (1) that you are likely to implement in your classroom. Mark items with the number (2) for which you would like to receive additional support. Label items using the number (3) that you would like to see in future trainings.

Instructional Strategies: Uses a variety of effective instructional strategies and engages and maintains students in active learning.

Teacher behaviors:

- | | |
|--|---|
| <input type="checkbox"/> Designs learning experiences that encourage students to give personal responses where multiple answers are possible | <input type="checkbox"/> Designs lessons that are authentic with real world connections |
| <input type="checkbox"/> Designs learning experiences that encourage students to learn with others, where they must share or compare responses with one another, and/or explain or combine one another's ideas | <input type="checkbox"/> Designs learning experiences that encourage students to create non-linguistic representations (kinesthetic, visual, etc.) and to show their thinking aloud |

Beliefs: Sets high expectations for all students and communicates key messages.

Teacher behaviors:

- | | |
|--|---|
| <input type="checkbox"/> Deals with students' errors in a way that dignifies student responses | <input type="checkbox"/> Ensures all students participate |
| <input type="checkbox"/> Provides all students access to rigorous curriculum | <input type="checkbox"/> Matches resources to correctly identified barriers |

Feedback: Provides clear, timely, and effective feedback to students.

Teacher behaviors:

- | | |
|--|--|
| <input type="checkbox"/> Provides feedback on effective effort | <input type="checkbox"/> Provides feedback that is related to the learning goal and provides student with direction for next steps |
| <input type="checkbox"/> Provides feedback on specific goals | |
| <input type="checkbox"/> Provides feedback on specific strategies | |
| <input type="checkbox"/> Provides feedback on failure in a way that it helps students grow | |

Feedback: Uses data to inform, guide, and adjust students' learning.

Teacher Behaviors:

- | | |
|---|---|
| <input type="checkbox"/> Analyzes data day-to-day to determine learning (Who has mastered, almost mastered, not mastered daily objectives?) | <input type="checkbox"/> Re-teaches using different strategies matched to specific student needs |
| <input type="checkbox"/> Collects and records relevant data | <input type="checkbox"/> Reassess after implementing an intervention to determine the need for further intervention |
| <input type="checkbox"/> Re-teaches concepts based on data analysis | |

Comments: _____

Appendix Q

Survey (Budge & Parrett, 2018)

TEACHER SURVEY TO ASSESS BELIEFS, KNOWLEDGE, SKILL, DISPOSITION, AND BACKGROUND WORKING WITH STUDENTS FROM POVERTY

Beliefs

Based on your personal perspective, rate/mark each statement as highly unlikely (-2), unlikely (-1), neutral (0), likely (1), or highly likely (2).

1. Each individual's experience with poverty is unique.
2. Like any socioeconomic group, people who live in poverty are diverse in their beliefs, values, and behaviors.
3. People who live in poverty do not share a common culture.
4. Poverty adversely affects people's lives in probable and identifiable ways.
5. It is possible for educators to know and understand the adverse effects poverty has on their students.
6. People in poverty work, on average, more hours than those in the middle class.
7. Even though we have a free public schooling system in the United States, all students do not have access to an equally good education.
8. People who live in poverty value education as a means for breaking the cycle of poverty.
9. Poverty is primarily caused by conditions in the broader society (including schools) that create unequal opportunity.
10. Poverty is not primarily caused by weak moral character or poor choices.
11. I am willing to question my current assumptions and beliefs about poverty and people who live in poverty.

Instructional Strategies/Knowledge

Based on your current level of knowledge and skill, rate/mark each statement as strongly disagree (-2), disagree (-1), neutral (0), agree (1), or strongly agree (2).

1. I can explain why my expectations of my students matter and how they influence the kind and quality of learning opportunities I provide
2. I can list 5 ways poverty adversely affects lives and learning.
3. I can name 3–5 mindsets or practices that perpetuate inequity in the classroom.
4. I can list 3–5 ways to "level the playing field" in the classroom.
5. I can debunk common stereotypes about people who live in poverty.
6. I am confident in my ability to successfully teach all students.
7. I am professionally responsible for the learning of each of my students.
8. I make a positive difference in the lives of my students, despite the challenges many of them face.
9. I am willing to make changes in my practice, even changes of a significant magnitude.

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Prior Training/Demographics Information

1. Have you had any specific training to address beliefs about students from poverty?
2. Have you had any specific training to address instructional strategies for working with students from poverty?
3. Do you have any other thoughts or opinions you would like to share about students who live in poverty?

4. How many years have you completed as a professional educator?
5. What is your gender?
6. What grade level do you currently teach?

Appendix R

Email to Potential Study Participants

Date:

Dear

Hello, my name is Barbara M. Wickham, and I am a doctoral candidate in the Educational Leadership and Policy Studies program at Virginia Polytechnic Institute and State University, working under the direction of Dr. Carol Mullen. The topic of my dissertation study focuses on discerning the impacts of practitioner-designed professional development on teacher beliefs about students from poverty and how the training might impact the implementation of instructional strategies in the classroom. I am seeking individuals who would be willing to participate in this research.

Dr. Mear, Superintendent, has given me permission to conduct this research with elementary teachers new to Montgomery County Public Schools.

I am emailing you specifically because you teach in one of our Title 1 elementary schools. We have seven elementary schools that are identified as Title 1, meaning that 40% or more of their students receive free or reduced lunch. Your participation in this study would involve a 45-60 minute interview at a time and place convenient to you. Schools and participants will not be identified in the report of the study. All information provided will be held in strict confidence.

Your participation will be greatly appreciated. Would you be willing to be a participant in this study?

If so, I will contact you to set a date and time for the interview. I will email you a brief explanation of the study, a consent form, as well as a confirmation of the date and time of the interview. Should you have any questions or require further information, please do not hesitate to contact me via the telephone number or email address listed in the email. I look forward to hearing from you.

Thank you for considering this request.

Sincerely,

Barbara M. Wickham
Doctoral Candidate
bmwbarbi@vt.edu
540-382-5100x104

Appendix S

Consent Form

I volunteer to participate in a research project conducted by Barbara M. Wickham, Doctoral Candidate at Virginia Polytechnic and State University. I understand that the project is designed to gather information from professional development about working with students from poverty. I will be one of approximately 5 - 15 participants being interviewed for this research.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no one in my division will be told.
2. If I feel uncomfortable during the interview session, I have the right to decline to answer any question or to end the interview.
3. Should I agree to participate, I will be asked approximately 10 – 12 questions by the researcher. The interview will last approximately 45 - 60 minutes. Notes will be written during the interview. A digital recording of the interview will be made. I understand I may request that my interview not be digitally recorded.
4. I understand all digital recordings and transcriptions of the interviews will be expunged at the conclusion of the study.
5. I understand that the researcher will not identify me by name in any documents using information obtained from this interview, and that my confidentiality and anonymity as a participant in this study will remain secure.
6. I understand that this research study has been reviewed and approved by the Institutional Review Board (IRB). The Virginia Tech (VT) Institutional Review Board (IRB) may view the study's data for auditing purposes. The IRB is responsible for the oversight of the protection of human subjects involved in research.

**I have read the Consent Form and conditions of this project. I have had all my questions answered.
I hereby acknowledge the above and give my voluntary consent:**

Interviewee Signature

Date

Interviewee Printed Name

Appendix T

Interview Protocol Script

Topic: Teaching Students in Poverty - What Works

Thank you for agreeing to be a participant in this study. I would like to explain the purpose of this study before we begin. The purpose of this mixed-methods study is to determine what teachers believe about students from poverty and ascertain if these beliefs impact their instructional practices in the classroom. The study will also investigate if teacher perceptions or beliefs change after receiving professional development on teaching students from poverty, based on a combination of research from multiple studies on educators' perceptions and effective teaching strategies for poor students. Furthermore, do changed beliefs/perceptions impact instruction and yield an increase in student achievement for students from poverty?

Your participation will require no more than 45-60 minutes, and all communication regarding the content validation of transcripts may be completed via email for your convenience. I will gather information from 10 – 15 teachers from Title 1 schools across the division in the form of interviews, and then analyze the interview responses for common themes, similarities, differences, or patterns. These interviews will be compared with other data sources such as the analysis of the survey responses and the literature on working with students in poverty in order to help me understand what makes teachers successful when working with students in poverty and best translate that success through teacher training.

Our interview today will be recorded using a digital device. No mention of you or your school will be used in the document of the study. Any of your identifying information, such as your name and school affiliation will be made through an established code. Once our interview is completed, it will be transcribed. A copy of the transcription will be sent to you for your review. Upon reviewing the transcript, you may make any changes in the transcription you believe are necessary. No one will have access to our interview data, your identifying information, or the transcripts from your interview, except my advisor and me. All data documents from our interview will be stored in my home in a locked file. All digital recordings of our interview will be stored in a locked file in my home and destroyed after the successful completion of the dissertation defense.

You will not be compensated for your participation in the study. The risk to you as a participant in the study is minimal. The benefit of your participation in this study is that your participation, combined with that of the other participants, will help other educators and policymakers gain a deeper understanding of what is needed to create and implement effective teacher training to increase achievement for students from poverty.

At any time, you are free to withdraw from this study with no penalty to you. You are free not to answer any questions without penalty.

Do you have any questions? _____Yes _____No

Are you willing to become a participant in this study? _____Yes _____No

You will receive a copy of the consent form that you signed.

I greatly appreciate your willingness to participate in this study.

May I digitally record our interview? _____Yes _____No

Do you have any questions before we begin? _____Yes _____No

Appendix U

Interviewee Transcription Form

Date: _____

Enclosed you will find a copy of the transcription of our interview conducted on _____.

Please read the transcript and choose one of the options below.

After you have completed this form by marking option 1 or option 2, please sign and return in the self-addressed envelope provided or via email. If I do not receive the form within a week of the date printed above, the information will be included in the study.

Thank you,
Barbara M. Wickham

Option 1:

I have read the transcription of our interview and agree that it can be used in its current state.

Option 2:

I have read the transcription of our interview and would like the following additions or corrections be made before moving forward.

Corrections or additions:

Signature:

Date:

Appendix V

Interview Protocol Checklist

Title of Study: Designing Effective Professional Development for Teaching Students in Poverty: Impact on Teacher Beliefs and Classroom Practice

Date and Time of Interview:

Place:

Name of Interviewee:

Consent Form Presented:

Consent Form Collected:

Interview Protocol Script Covered:

Contact Summary:

Main Themes:

Salient/Interesting:

Date Transcript Sent for Review: