IMPACT OF PROFESSIONAL DEVELOPMENT ON TEACHER UNDERSTANDING OF LOW SOCIOECONOMIC STUDENT CONTEXTS AND INFLUENCE ON MOTIVATION

By

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ABSTRACT

This study examines the teacher understanding of low socioeconomic status (SES) students and

its influence on motivation, specifically motivation to read. The study will investigate the use of

professional development to support the implementation of two teacher practices. These

practices are the development of learner profiles and the use of learner profiles to influence

academic grouping, specifically the implementation of cooperative learning methods. The

impacts of increasing teacher understanding of low SES students and its influence on motivation

will be measured through the administration of the Motivation to Read Profile-Revised (MRP-R)

survey (n=176) to measure changes in motivation, specifically the motivation of students of low

SES. Teacher perceptions of student motivation will also be measured through the Perceptions

of Student Motivation (PSM) survey (n=57). Finally, increasing teacher understanding of low

SES student contexts impact on perceptions of teachers' relationships with students will be

measured using the Student Teacher Relationship Scale (STRS) survey (n=59).

Keywords: motivation, cultural competency, cooperative learning, literature circles,

learner profiles, low socio-economic status

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Dedication

The accomplishment of significant milestones is the result of the sacrifices, inspiration, and support of others. We do not reach goals alone, we reach goals for and through those people who have made us believers; believers in who we are, what we could become, and what we can overcome to reach goals. During times when we are tested by adversity and challenge, is when these people come to the forefront to shine even brighter. Their voices of encouragement become louder, their shoulders of support become stronger, and they serve as a reminder. You remember that all you are and all you do is the result of those significant people, who whether through blood or bond, bless your life with their presence. This is dedicated to those people whose presence has been the difference.

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Dissertation Approval Form

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The Dissertation Adviser must submit the completed form to the Director(s) of the Doctor of Education Program for inclusion in student's doctoral folder.

Appendix I: Dissertation Defense Signature Form (July 1 2016)

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Executive Summary

Social status should not be an indicator for the quality of education a child receives, the perception teachers have about student motivation and effort, or the quality of teacher-student relationships in schools. However, the research literature provides evidence that students of low socioeconomic status (SES) encounter educational inequities in regards to the quality of teaching they receive, the relationships they have with teachers, and the academic achievement they experience (Anyon, 1980; Lareau, 2011; Jensen, 2009; Evans, 2004). These inequities are a result of the institutionalized practices formed as a result of the cultural gaps between students and teachers, the traditions prevalent in social class structure, and the sociological impacts of poverty (Gay, Dingus, & Jackson, 2003; Gay, 2002; Goldenberg, 2014; Jensen, 2009; Jensen, 2013; Lareau, 2011). These institutionalized systems result in misperceptions, biases, and therefore an inaccurate depiction of low SES students that Gorski (2008) describes as a culture of poverty. The research demonstrates that the lack of teacher understanding of low SES student contexts is a significant problem that contributes to the manifestation of the inequities, specifically, a focus of this dissertation, socioeconomic achievement gaps in third grade reading (Reardon, 2011; The Annie E. Casey Foundation, 2011; Hernandez, 2012).

This dissertation explores a possible way to influence the understandings teachers possess in understanding low socioeconomic status (SES) students and the subsequent influence on student motivation. One reason for this deficient teacher understanding of low SES student and its impact on motivation is a lack of targeted professional development (PD) for elementary school teachers to deepen understanding of student contexts to apply effective instructional practices. Professional development will support the implementation of two instructional practices, learner profiles to develop a deeper understanding of low SES student contexts and the

utilization of this understanding to place them in cooperative learning groups. The content of this PD will be delivered utilizing the Cultural Competency Framework (Hammond, 2015, Gay, 2000). The purpose of utilizing this framework is that the CRT framework focuses on theory and practices that support the implementation of learner profiles and cooperative learning.

Therefore, the student investigator (SI) for this study designed and conducted a quantitative research study with 103 third grade students and 38 teachers at a suburban elementary school outside of Washington D.C. over a period of three months. With student sample size in both and treatment (N=103) and control group (N=73) and teacher sample size, treatment (N=32) and control (N=25), this study intends to provide valuable insight on this program's impact on low student motivation in reading, teacher perceptions of student motivation, and teacher perceptions of relationships with students. This study intends to challenge the traditional mind sets that enable these inequities to endure and ensure that low SES students are provided with an educational experience that represents their individual needs, not one that represents the stereotypes applied to low SES groups.

CHAPTER ONE

UNDERSTANDING THE PROBLEM OF PRACTICE

Social class is an indicator for the quality of education a student receives and therefore potential academic achievement (Anyon, 1980; Lareau, 2011; Jensen, 2009; Evans, 2004). Students of high socioeconomic status (SES) continue to outperform peers in low SES environments, specifically in reading (Reardon, 2011; Hernandez, 2012). This gap in reading performance between high SES students and low SES students has severe implications when examined in third grade. A study released by the Annie E. Casey Foundation (2011) presented evidence that a student who can't read on grade level by 3rd grade is four times less likely to graduate by age 19 than a child who does read proficiently by that time. Add poverty to the mix, and a student is 13 times less likely to graduate on time than his or her proficient, wealthier peer (Hernandez, 2012).

A study conducted by The Annie E. Casey Foundation (2014) further demonstrated the severity of this gap in third grade by finding that "low income third graders who cannot meet National Assessment of Educational Progress (NAEP) proficient levels in reading are likely to become our nation's lowest income, least skilled, least productive, and most costly citizens tomorrow" (p.7). Linnakyla, Malin, & Taube (2004) have identified the "reading performance gap of low achieving students of disadvantaged backgrounds and their mainstream peers as a special challenge for educational systems today" (p. 233).

The literature review demonstrates that low SES students learning experience in reading is influenced by a wide set of misperceptions and biases that contribute to decreased motivation and thus gaps in performance (Jensen, 2013; Gorski, 2008; Payne, 2005; Haberman, 2010). This results in teachers not only having a lack of understanding of low SES student contexts but

having a misunderstanding of low SES students that is influenced by societal biases and assumptions.

Problem of Practice

Deficient Teacher Understanding of Low SES Student Contexts Influence on Student Motivation

The complexity of poverty's implications on the achievement gap must be examined to accurately understand underlying causes (Appendix A). Jenson (2009) defines poverty as a "person with income less than deemed sufficient to purchase basis needs" (p.6). In an action oriented approach, Payne (2005) defined poverty as the "extent to which an individual does without resources" (p. 7). However, poverty is much more multifaceted than this short definition. Poverty is neither simple nor a single thing and changes based on geographically location (Lyman & Villani, 2002). We therefore cannot intend to resolve the discrepancies in reading performance between low and high SES students by attempting to understand students by examining them through one lens.

The evidence of the rapidly changing population of the United States is particularly visible in our nation's school systems. This changing population is defined by the diversity of culture, ethnicity, race, language, and disability present in classrooms (Tomlinson & McTighe, 2006). Encompassed in this wide diversity is its representation of students that are living in poverty or low socioeconomic status (SES). The diversity of low SES students along with the complexity of the social class structure that causes poverty, the sociological conditions that result from it, and its implications on student learning result in bias and misperception in society. These biases and misperceptions manifest themselves in education and therefore influence teachers.

Further contributing to this lack of understanding of low SES students are cultural gaps between teachers and students. Simply put the cultural background and socioeconomic experiences of teachers and students differ greatly. The research reviewed in this study demonstrated that cultural gaps exist between teachers and low SES students (Howard, 2007). Specifically, ninety percent of United States (US) public school educators are white and the majority was raised in middle class environments (Gay, Dingus, Jackson, 2003). Further, the research demonstrated that differences in social class structures have had a further negative impact on teacher understanding of low SES students. This lack of understanding can be attributed to the development of the culture of poverty (Gorski, 2006), which promotes inaccurate perceptions about low SES students among educators. Therefore, the problem of practice of this study is deficient teacher understanding of low SES student contexts influence on student motivation.

In this study, the lack of understanding of low SES student contexts was addressed through the development of learner profiles. A learner profile is defined as a student's preferred mode of learning that can be affected by a number of factors, including learning style, intelligence preference, gender, and culture" (Tomlinson et al., 2003, p. 129). These profiles focused primarily on students' cultural backgrounds and specific interests. They were constructed in collaboration with students and parents and therefore provided constructive information to better understand low SES students. This increased understanding was utilized to effect academic grouping practices to appropriately place them in highly motivated settings. The development of increased teacher understanding of low SES students to influence grouping practices, specifically cooperative grouping methods, was examined through culturally

UNDERSTANDING OF LOW SES STUDENT CONTEXTS INFLUENCE ON MOTIVATION responsive teaching (CRT) framework as defined by both Zaretta Hammond (2015) and Geneva Gay (2000).

Study Overview

This study argued that there is not only lack of teacher understanding of low SES third grade students that contributed to lower reading performance than their high SES peers, but also a lack of professional development to increase this understanding to promote more motivating learning experiences. The misperceptions of low SES students have resulted in the pedagogy of poverty (Haberman, 2010). The pedagogy of poverty is defined as instructional practices that focus on the assumption that low SES students need direct and authoritative teaching that promotes rote memorization and drilling (Haberman, 2010). The research demonstrated that students living in poverty need the complete opposite, in fact they would benefit from the pedagogical approach used for students identified as gifted and talented (Jensen, 2009). However, this pedagogy that was developed on the assumptions and perceptions of the middle class continues to be practiced today.

This study asserted that as teachers increase their understanding of low SES students they can better design instruction that will increase the students' motivation. As the literature demonstrated, the achievement gap in reading between high and low SES students continues to widen to the point where it is now twice the size of the black-white achievement gap (Reardon, 2011). To begin to address the gaps in educational experiences and reading achievement between low and high SES, teachers must increase their knowledge of low SES student contexts to influence their motivation.

Methods: Theory of Action

The current body of literature examined institutional perspectives regarding the challenges of cultural gaps between students and teachers, traditional social class structures, and sociological impacts that poverty has on teacher ability to understand low SES student contexts to influence motivation. A gap in the present research was identified in that studies did not examine practical and specific interventions or programs to address deficient teacher understanding of low SES students. Additionally, minimal professional development is provided to support teacher understanding of low SES students (Jensen, 2009).

This applied dissertation research closed this gap through the development of a program to not only acquire understanding of low SES student contexts but effectively utilize it to strengthen their learning experiences. Acquisition of information about low SES students was delivered to teachers through the development of learner profiles in collaboration with students and families. This information provided them with a better understanding of low SES student contexts and the ability to deepen understanding through creating connections based on their cultural backgrounds and interests. The intervention was not the acquisition of this information alone, but included a prescribed treatment of using it to influence academic grouping and thus motivation. Specifically, the researcher utilized cooperative learning literature circles to appropriately place 103 students in groups of similar interests and cultural backgrounds. The hypothesis was that this increase in understanding of low SES students and grouping methodology would influence student motivation as measured by a student survey (n=176) and teacher survey (n=57).

With both the acquisition of information about student cultures and cooperative grouping being embedded in the framework of culturally responsive teaching, professional development

was delivered to enhance teacher practices. This professional development focused on strategies to effectively utilize student cultures to enhance learning, cooperative learning strategy, motivational strategy, and effects of stress on information processing.

Theory of Change

In order to address the problem of practice of deficient teacher understanding of low SES student contexts, the theory of change includes utilizing research based theory to understand the methods selected to drive change, defining the underlying factors that contribute to the problem of practice, and the development of treatment to change or address the problem of practice. The problem of practice will be analyzed through the self-determination theory. This theory implies that the motivation to attain external or internal outcomes is influenced by an individual's view of the probability of attaining them and the development of satisfying connections (Deci & Ryan, 2000). Teacher understanding of low SES students and their motivation is impacted by the perception of the probability of student's attaining goals.

As illustrated in Appendix (A), deficient understanding of low SES student contexts can be attributed to the underlying factors; cultural gaps that exist between students and teacher, the development of the social class structure in our nation, and the sociological impacts that result from living in poverty. Each of these factors defines the complexities that result from students living in low SES. These complexities not only contribute to teachers having deficient understanding of low SES student contexts, but the development of perceptions that represent the theory of self-determination. Specifically, that these factors negatively impact their motivation through learned helplessness.

In order to increase teacher understanding of low SES students and address misperceptions and biases that occur as a result of the identified underlying factors, professional

development will be utilized. The professional development program will be constructed utilizing components of Hammond's (2015) culturally responsive teaching framework. The CRT framework was selected as a result of its connection to two major components of the intervention, acquisition of the cultural knowledge of students through learner profiles and community building through cooperative learning strategy. The identification of professional development as treatment to change teacher's level of understanding of low SES student contexts was supported by examining Vygotsky's (1978) social constructivism theory. Specifically, the manipulation of social environments as a result of acquiring knowledge of student social make up or social contexts. Therefore, the theory of change is that the delivery of professional development will result in not only increasing teacher understanding of low SES student contexts but will support teachers in overcoming the misunderstanding or misperceptions that are a result of the underlying factors.

Research Questions

This study intended to examine the impacts of increased teacher understanding of low SES students influence on motivation by collecting data on student motivation to read, teacher perceptions of motivation, and teacher perceptions of relationships with students. Analysis of this data would address the following research questions that drove this study:

- RQ1: Does the motivation of students increase in reading after their teachers incorporated texts that represented their interests in cooperative learning literature circles?
- **RQ2**: Does the motivation of low SES students whose teachers construct cooperative learning opportunities utilizing learner profiles increase more than their high SES peers?

- **RQ3**: Do teachers who participated in the professional development on culturally competency have increased perceptions of student motivation?
- **RQ4**: Is there a correlation between teacher perceptions of relationships with students and student motivation?

CHAPTER TWO LITERATURE REVIEW

Introduction

Since the release of the Coleman Report (1966), education has been heralded as the great equalizer. However, today, social class is a determining factor in one's success in school. Students of high socioeconomic environments continue to outperform peers in low socioeconomic environments, specifically in reading (Reardon, 2011; Schultz, 1993). The significance of addressing the third-grade income achievement gap is made evident by eightyfive percent of low income fourth grade students in predominantly poor schools failing to meet proficient benchmarks in reading on federal tests (Viadero, 2010). Therefore, the majority of students of low SES are not proficient in reading after completing the crucial third grade year. Viadero (2010) defined this year as crucial because it is at this age that students move from focusing on learning to read to focusing on reading to learn. Chall & Jacobs (2003) specifically defined reading to learn as the ability to use reading as a tool for learning, specifically in order for students to learn from texts they must be fluent in word recognition and have advanced vocabulary to expand their ability to think critically. Guthrie, et al., (2004) stressed the importance of reading to learn by explaining that if students do not acquire reading comprehension skills by this time; their academic progress will be limited throughout their school career.

In Montgomery County Public Schools (MCPS) in Maryland, a key component of their district implementation plan is to provide diverse learning opportunities based on the identified needs and unique interests of students (Montgomery County Public Schools, 2016). This is a very broad statement and the only specific strategy to support students of low SES is minimizing

class sizes in elementary schools impacted by poverty in order to improve student achievement in reading (Montgomery County Public Schools, 2016). There is no formal professional development in the county to provide teachers with the practical knowledge to best meet the needs of low SES students. This is significant given that 34.5% of the MCPS student population participate in the Free and Reduced Meals System (FARMS) (OpenDataMCPS, 2015). As a result of a broad focus on specific strategies and limited professional development programs to meet the needs of students of low SES, teacher ability to meet the needs of these students is limited.

Review of Literature

A review of the literature illustrated the complexities of poverty and the impact they place on teacher's acquisition of contextual understanding of low SES students. The impacts of poverty on motivation and therefore learning are explained through the utilization of the self-determinant theory (SDT) (Deci & Ryan, 2000). This theory will be connected to the theory of learning that is relevant to the intervention, Vygotsky's (1978) social constructivist theory. Literature on both of these theories framed the challenges educators face to best understand low SES students and construct equitable learning conditions among all social classes.

The various components of poverty and its implication on motivation are thoroughly examined in the literature review. The debate over a culture of poverty will be examined and how this idea of culture resulted in the pedagogy of poverty (Gorski, 2006; Haberman, 2010). The examination of the deep-rooted complexities of poverty will then be explored in the literature. These complexities are defined by the cultural gaps between students and teachers, the social class structure of the US, and the sociological effects of poverty. Furthermore, the literature review expanded upon how these complexities impact low SES student learning.

motivation, and relationships with teachers. The literature closely investigated the relationship between poverty and motivation which will identify the drivers and preventers addressing the lack of teacher understanding of low SES students.

The research then focused on a review of the proposed methods to address the problem of practice. The methods examined to address the problem of practice will be the development of learner profiles to influence academic grouping, specifically cooperative learning groups. These practices will be supported by the implementation of professional development that utilized components of Culturally Responsive Teaching (CRT) framework.

Theoretical Framework: Self Determination Theory

Self-determinant theory (SDT) (Deci & Ryan, 2000) is based on the relationship between how social and cultural factors either drive or undermine one's motivation. SDT is composed of three elements, competence, relatedness, and autonomy. According to Deci & Ryan (2000), competence is defined as the motivation to control the outcome by measuring the likelihood of our actions resulting in the desired outcome, relatedness is described as the want to be connected to other people and develop belonging, and autonomy is exerting control as a result of choosing to pursue our interests. In this study, the elements of competence and autonomy were of significant interest in understanding the motivation of low SES students. The research demonstrated that many students assess their competence and this assessment determines their motivation. Competence is therefore connected to the learned helplessness that people living in poverty experience (Jensen, 2009). Learned helplessness is linked to SDT because motivation is based on the likelihood that a behavior will result in obtaining a goal (Gurin & Gurin, 1970).

Autonomy is of importance because the literature presented evidence that low SES students have a strong desire for choice and control over how they learn (Haberman, 2010).

Unfortunately, opportunities for low SES students to experience autonomy in their learning experiences are limited. Deci (1991) describes the component of SDT identified as relatedness which describes interpersonal connections. Relative to the study, this part of SDT is of significance because it is essential in fostering engagement when intrinsic motivation is low (Deci & Ryan, 2001).

Theory of Learning: Social Constructivism

The examination of the impacts of poverty required an analysis of how to transform teaching practices that have not supported the progress of low SES students. The practices associated with the pedagogy of poverty (Haberman, 2010) resulted in teachers providing basic learning opportunities that required only a basic understanding of the learner. The experiences and background of low SES students must be considered to authentically engage them in learning (Jensen, 2009). Therefore, teachers and students must construct learning opportunities that take these experiences into account. The development of learning based on prior experience is associated with constructivist learning theory.

"The constructivist theory is based on the idea that a "learner constructs their knowledge and understanding internally based on the personal interpretation of their experiences and their pre-existing knowledge" (Ernest, 2010, p. 40). This theory implies that teachers should move beyond traditional teaching methodologies that low SES students have grown accustomed. Rather, "they should structure situations such that learners become actively involved with content through manipulation of materials and social interaction" (Schunk, 1991, p.231). This emphasis on the importance of social interaction in acquisition of skills and knowledge was the basis for Vygotsky's sociocultural theory of learning.

Social interaction and therefore cultural influence have a significant effect on how learning occurs (Vygotsky, 1978). According to Schunk (1991), "Vygotsky considered the social environment critical for learning and thought that social interactions transformed learning experiences" (p. 242). More specifically, Vygotsky formulated a theory of development that is based on a student's ability to learn how to use socially relevant tools and culturally based signs through interactions with other students and adults who socialize the student into their culture (Doolittle, 1997). Therefore, it is equally as critical for teachers to recognize and understand the social and cultural diversity of individuals in order to place them in appropriate situated learning. Understanding of social and cultural differences will most effectively be spread through social interactions that build meaningful relationships that will impact their learning (Au, 1998).

According to Bransford, Brown, & Cocking (2000) expansion of teacher understanding is found in Vygotsky's theory of learning through the idea that an individual learner must be studied within a particular social and cultural context. The result of a teacher studying an individual learner would allow them to appropriately place that learner in the zone of proximal development (ZPD). This key concept in Vygotsky's theory of learning is defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). In relation to the problem of practice, Vygotsky's theory rested upon the principle that a student's development in reading is dependent upon not only interactions with the teacher but with other students (Doolittle, 1997).

Therefore, the theoretical framework required the researcher to consider interventions that exposed students to peers that can model specific reading skills. Vygotsky (1978) explained

that the key to ensuring a student comprehended a reading concept is by establishing a social setting with teachers and peers that can adequately assist their development. The selected intervention of cooperative learning through literature circles establishes this social setting.

Clark & Holwadel (2007) claimed that the "developmental perspective on cooperative learning is that this social setting or interaction among children around appropriate tasks increased their mastery of critical concepts" (p.182). Mastery of critical concepts was a result of establishing structures that promote social interaction between lower performing students and higher performing students. Relative to cooperative learning, Vygotsky (1978) explained that collaborative activities among students promoted growth because children are operating within one another's ZPD, modeling academic behaviors and skills that are more advanced than those they could perform individually (p. 17)

The purpose of developing a learner profile was to develop an understanding of learners to adopt instructional strategies that modified learning experiences to maximize ability levels or place them in the ZPD (Bransford et al., 2000; Vygotsky, 1978). Au (1998) defined these constructivist strategies as ones that actively engaged students in processes of meaning-making, text comprehension and the varied nature of knowledge, especially knowledge developed as a consequence of membership in a given social group.

The Culture of Poverty

In the 1950's, Oscar Lewis utilized his studies of Mexican families to introduce a "culture of poverty" (Carmon, 1985). According to Lewis, this culture was defined by 50 characteristics (Lewis, 1961). These characteristics spanned across four levels: individual level, family level, community level, and the level of relationship between members of the subculture and the larger society, and found this culture to be generational due to the profound impacts on

children (Carmon, 1985). Examples of the characteristics that Lewis identified were frequent violence, a lack of a sense of history, and a neglect of planning for the future (Gorski, 2008). Carmon (1985) tested and examined this culture of poverty and found that the differences in values among poor people are just as great as those between poor and wealthy people. This study challenged some of the misconceptions of the culture of poverty.

These misconceptions related directly to implications to poor people's value of education. These common misconceptions or myths as Gorski (2008) labeled them were the following: poor people devalue education, are less motivated, poor parents are uninvolved in their children's learning, and poor people are linguistically deficient (Gorski, 2008). Of significance, is the inaccurate perception that low SES adults and students are not motivated. Gorski (2008) addressed this myth by highlighting that majority of low income families worked multiple jobs because of primary access to only low wage jobs.

In addition, Gorski's (2008) study identified deficit theory as a component of the culture of poverty. Gay (2000) defined deficit theory as what students of cultural differences don't have or can't do. Collins (1988) connected this deficit theory to social class by explaining poor people are poor due to their own values and lack of intellectual ability. This deficit theory is a contributing factor of the deeply rooted assumptions and biases founded in the culture of poverty. Gorski (2008) claimed that this inaccurate depiction of a culture of poverty has been carried on for almost for 40 years with perhaps the greatest myth being that education is the great equalizer. Even more troubling, despite the fact that social scientists have proven this culture of poverty to be false it remains the framework the US educational systems uses to understand the lives of low SES students (Gorski & Swalwell, 2015).

Research dismissed the myth of a culture of poverty; however, Gorski (2008) cited the existence of a culture of classism that exists within education. It is critical that educators recognize the culture of classism and gain an understanding of the individual strengths, cultures, and interests of their students. A comprehensive understanding of who the learner is will support teacher ability in designing learning opportunities that motivate learners.

Cultural Gaps between Students and Teachers

The ethnicity of teachers does not reflect the growing ethnic diversity of students. In our nation, ninety percent of U.S. public school teachers are white and most grew up in middle class environments, English speaking, and predominantly white backgrounds (Gay, Dingus, & Jackson, 2003). These teachers also received their teacher preparation in predominantly white colleges and universities (Gay, Dingus, & Jackson, 2003). They therefore have minimal funds of knowledge (Moll, Amanti, Neff, & Gonzalez, 1992). Funds of knowledge are defined as an individual's historically accumulated and culturally developed body of knowledge and skills (Moll, Amanti, Neff, & Gonzalez). With minimal funds of knowledge to inform effective teaching of cultural and socioeconomic diversity, teachers drew on their own historically accumulated cultural preferences which resulted in maintaining the power and advantage of white and affluent members of society (Bourdieu & Passeron, 1977). Therefore, learning opportunities represented the experiences, values, orientations, and perspectives of middle-class, highly educated, middle-aged Anglo teachers and not those of students who are poor, undereducated, racial and ethnic minorities (Gay, 2002; Goldenberg, 2014; Jensen, 2009).

According to Cabello & Burstein (1995), when teachers had a limited understanding of their students, cultural and experiential gaps developed between teachers and their students.

These cultural gaps between students and teachers resulted in classrooms being isolated from the

social worlds that are reflected in the school community (Moll, Amanti, Neff, & Gonzalez, 1992). The contexts of diverse student bodies are then not represented in the classroom and therefore not valued. The literature suggested that teachers do little to build their understanding of student contexts. Commonly, teacher student relationships are single stranded due to teachers only knowing students based on their performance not on contexts outside of the classroom (Moll, Amanti, Neff & Gonzalez, 1992). The pursuit of low SES student contexts will result in teachers knowing the child as a whole person to create multiple spheres of opportunities providing them with a sense of themselves in the classroom (Moll, Amanti, Neff & Gonzalez, 1992). Teacher motivation of understanding student contexts is the foundation of culturally competent teachers. "Cultural competent teachers understand culture and the role of culture in education; take responsibility for learning about students' culture and community; use their students' culture as a foundation for learning; and teachers' support flexible use of students' local and global culture" (Santamaria, 2009, p. 223-224).

In order to address the cultural gaps between low SES students and teachers, Hughes (2010) stressed that is imperative that teachers perceive students from low income environments as accurately as they perceive students in other circumstances in order to effectively engage these students in the learning activities. Many of these biased perceptions resulted in relationships that can be defined by a belief in lower expectations for low income students. "There is a lingering—if unspoken—belief that poor children are just not as intelligent as other children. They are perceived as different in their cognitive abilities and teachers are more willing to "write off" these students" (Ulluccil & Howard, 2015)

Teacher's lack of understanding of low SES student contexts contributed to these deficit beliefs. It also impacted their ability to have an awareness of their cultural, ethnic, expectations,

and personal biases. By deepening their understanding of these students, it will allow teachers to scrutinize long held beliefs and misconceptions that influence cultural gaps between students and teachers (Chisholm, 1994).

Social Class Structures

A child's social standing is a predictor for the quality of education they will receive (Evans, 2004; Gorski, 2008; Ulluccil & Howard, 2015). Of even more significance, Lareau (2011) claimed that the social class of a parent predicted their child's success in school. The influence of social class is not new. Its influence is prevalent throughout history, dating back to the 19th century through the idea of pre-determination. This idea is described as what you become was determined by what you inherited (Evans, 2009). Therefore, at birth, our social class can immediately deliver advantages and disadvantages that strongly predict the success we will experience. As Lareau (2011) states, "Social group membership structures life opportunities, the chances of attained key and widely sought goals are not equal for all infants who are born" (p.256).

Middle Class Structure

The differences between the experiences of high SES students and low SES students have a direct impact on their educational experience. Middle class children are provided with cultural capital that prepares them for success in school. Cultural capital is defined as the skills or knowledge that individuals acquire that can be translated into forms of value to the institutions that will determine their success (Lareau, 2011). Examples of the cultural capital that higher SES students inherit that influenced their school success are reasoning, negotiation, and advocating for their needs or desires (Lareau, 2011). A simple example that is valuable is that middle class children are taught to shake hands with adults and give eye contact (Lareau, 2011).

Teachers viewed this as a sign of respect and it therefore it influenced their relationships and understanding of middle class students.

The influences of middle class structures on school success are significant. Bourdieu & Passerson (1977) described schools as organizations that are created by the middle class and promoted the values and norms engrained in their social class structure. This therefore maintains the suppression of the lower class in education. This suppression is further preserved by middle class families promoting what Lareau (2011) labels as white collar skills; setting priorities, management and organization, and the ability to function on a team. Anyon (1980) explained this gap in social class structure. Anyon (1980) argued that children receive education that mirrors their social class. Specifically, children from working class backgrounds engaged in basics and learn that knowledge is created by others, while students from elite backgrounds are expected to think and reason in preparation for college and create knowledge for themselves. Middle class children are provided with training on the rules of the game which are prevalent in education. This training prepared them for success in school and life.

Lower Class Structure

Lower class families do not provide students with the hidden rules of the game. As Payne (2005) states "Hidden rules govern so much of our immediate assessment of an individual and his or her capabilities" (p. 44). An example of this relevant to the cultural capital that middle-class children possess is being taught to shake hands and look adults in the eye. On the contrary, lower class families commonly teacher children that it can be dangerous in their neighborhoods to look someone in the eye for too long (Lareau, 2011). This then can be perceived by teachers as being disrespectful. Lower social class families are also less involved in the school and children are trained to not negotiate or advocate for their learning needs

(Lareau, 2011). This lack of involvement is described by Lareau (2011) as parents "being submissive rather than demanding of school personnel and trying to maintain separation between school and home rather than foster an interconnectedness" (p.199).

Implications of Social Class Structure on Problem of Practice

With the majority of teachers being raised in middle class structures (Gay, Dingus, Jackson, 2003) they then value the cultural capital exhibited by middle class students. Lareau (2011) explained that cultural capital is transferred across generation and result in teachers valuing the same things they were trained on by their parents. Therefore, they have a lack of understanding of lower social class capital. An example of this is teacher interpretation that a parent's failure to attend a parent teacher conference means they do not value school (Gorski, 2008; Lareau, 2011; Jensen, 2009). Gorski (2008) expanded upon this by explaining that low income parents lack of attendance at school function is not because they valued school less than higher income parents but because they often work more than one job, work evenings, and may be unable to afford child care or public transportation. This lack of understanding or misperceptions by educators results in failure to take these considerations into account and therefore do not value the involvement of low income families (Gorski, 2008).

Another example is that teachers value students that arrive to school each day well-groomed and prepared to participate (Lareau, 2011). Low income families often lack of financial resources that result in transportation challenges or lack of training on organizational skills impacting their ability to appear ready for school. In regards to motivation, it is important to note that when one is perceived as unmotivated by teachers, it is not uncommon that they demonstrate a lack of motivation.

Relevant to the problem of practice, there is not only a lack of teacher understanding of low SES student contexts; there are misunderstandings that are a result of social class differences. Therefore, building teacher understanding of low SES students may contribute to their success in school. "An understanding of social structures and social class helps one to understand their position is not a means to cast blame on individuals for their life circumstances" (Lareau, 2011, p. 257). The literature on social class structures helped support the identification possible interventions to address the problem of practice. As Jensen (2013) states, "If poor people were the same cognitively, socially, emotionally, and behaviorally as those from the middle class, then the exact same interventions provided to both middle-class students and students from poverty would bring the exact same results" (p. 24).

Pedagogy of Poverty

The lack of teacher understanding as a result of the perceptions created through the culture of poverty and social class structures led to an inaccurate understanding of what low SES students need in order to be successful. The prevalence of the myths and biases resulted in what Martin Haberman (2010) defined as the "pedagogy of poverty." This controlling pedagogy utilized teaching practices that stress rote memorization, obedience, and punctuality (Downey, et. al., 2004). Haberman (2010) described these practices through a disconnection between teaching and learning. As such, teachers teach and students learn. In this pedagogical approach, emphasis is placed on low SES students demonstrating appropriate behaviors by following explicit teacher directions. Further, teachers hold the view that low SES students require basic skills in order to function in society. Completion and compliance are the measurements to determine success (Haberman, 1995). Duke's (2001) research findings were similar to the pedagogy of poverty. Low SES student were less likely to be provided with opportunities to use

the library, choose texts to read, read connected text in class, or experience literacy integrated across the curriculum. Further, Duke (2001) claimed, "In contrast to students of higher SES, they spend more time engaged in lower-level skill development such as copying from the board, dictation exercises, and worksheet completion rather than on writing activities that allowed them a degree of choice, control, creativity, authorship, and an audience other than the teacher" (p. 456).

The pedagogy of poverty resulted in a consistent emphasis on skills that prepared low SES students for low-wage jobs, rather than managerial positions (Downey, et. al., 2004). Haberman's (2010) analysis of a 'pedagogy of poverty' stressed that in low income schools it is not common for teachers to take into account the individual needs, strengths, and interests of students. Therefore, there is a lack of attention to understanding the context of low SES students to design motivation learning experiences that address their individual needs.

According to Haberman (2010) this instructional theory approach resulted in a lack of motivation and thus low achievement in literacy. Evans (2004) supported this claim by explaining that low-income youth are more often taught using memorization, drills, and other basic instructional methods that are not conducive to engagement or learning, and they suffer from generally lower expectations for their achievement. The literature provided evidence that students from low socioeconomic environments thrived in environments that emphasize intrinsic motivation, student autonomy, choice, and self-direction (Knapp & Shields, 1991; Haberman, 2010). Furthermore, Haberman (2010) stressed that students who live in poverty want to be involved in planning what they will be doing, provided with real choices that relate to their cultural and real world experiences, select topics to research, determine what resources they need or want, and plan on how they will present their learning.

Sociological Impacts of Poverty

Poverty is a generational cycle that is extremely difficult to alter. The intensity of the impact of poverty is explained by Marquis-Hobbs (2014), "For a family in generational poverty, the focus is often on surviving today's challenges, and tomorrow is not guaranteed." (p. 36). Poverty leads to significant sociological effects. These sociological impacts are demonstrated in environmental, physical, and psychological factors.

Environmental Impact

Low SES students are exposed to environmental factors that can be harmful (Jensen, 2009). For example, Evans (2004) notes, "Low-income children in comparison to middle-income children are exposed to greater levels of violence, family disruption, and separation from their family" (p. 78). The lack of safety and security of living in low SES neighborhoods can be extended to the home environments.

Parents often work several jobs in order to provide basic needs. Jensen (2013) described these basic needs as food, water, shelter and safety. These multiple jobs resulted in parents being "overstressed resulting in them being more inclined to demonstrate a lack of interest in and neglect or negativity toward their children" (Jensen, 2009, p. 87). These stressors and time constraints can result in "disruptive home relationships that often create mistrust in students. Adults have often failed them at home, and children may assume that the adults in school will fail them, too" (p. 90).

Additionally, they impact a key component to success at home and school, consistency. Secure and stable environments, provided the predictability that is vital to a child's social and emotional development (Jensen, 2009). However, in low income homes this consistency and predictability is often lacking. Contributing to this lack of consistency and predictability is that

the focus is constantly on the present. According to Payne (2005) "Time occurs only in the present, the future does not exist except as a word, time is flexible and not measured, time is often assigned on the basis of the emotional significance and not the actual measured time" (p.52).

Physical Impact

Poverty can result in poor health. "Poor people are less likely to exercise, get proper diagnoses, receive appropriate and prompt medical attention, or be prescribed appropriate medications or interventions" (Jensen, 2013, p. 24). While all these can impact a child's health, poor nutrition is the most significant factor impacting them. Children that live in poverty are exposed to food with lower nutritional values (Jensen, 2013). A common meal missed among children is breakfast (Jensen, 2009). This can result in poor attention, lack of energy, and higher levels of absenteeism. According to Jensen (2013), "When students experience poor nutrition and diminished health practices, it's harder for them to listen, concentrate, and learn" (p. 24). Poor nutrition or missed meals can impact their behavior in school. Specifically students can appear lethargic of hyperactive, resulting in the perception of them not behaving appropriately (Jensen, 2013).

Psychological Impact

Living in poverty and experiencing stress are closely correlated. As Jensen (2009) describes, "Children in poverty are faced with daily overwhelming challenges that their brains have had to adapt to suboptimal conditions in ways that undermine good school performance" (p. 14). These challenges resulted in stressors that are responsible for negatively impacting their performance in school. These stressors are labeled acute and chronic stressors and can hinder brain development, academic success, and social competence (Jensen, 2009). Scientifically,

Jensen (2009) cites Cook & Wellman (2004) research that these stressors disrupt homeostatic balance, normal blood pressure, heart rate, and blood sugar levels. This then resulted in the creation of cortisol which is a stress hormone that is responsible for shrinking neurons in the frontal lobe (Jensen, 2009). According to Cook & Wellman (2004), this damaged the frontal lobes which are responsible for judgement, planning, and regulating impulsivity (Jensen, 2009). Relative to potential intervention programs, impulsivity can lead to emotional dysregulation and this "leads to social dysfunction which inhibits a student's ability to work well in cooperative groups" (Jensen, 2009, p. 18)

Sociological Impacts of Poverty: Implications on Problem of Practice

The sociological impacts of poverty are complex and require professional development for teachers to better understand them. Without the appropriate understanding of the sociological conditions accompanying with poverty, teachers will misunderstand behaviors and draw inaccurate conclusions about low SES students. An example of these are the behaviors associated with poor nutrition or hunger, the implications that stress can have on a student's behavior, or uninformed teachers perceiving lack of hope and optimism that can be associated with depressive systems for low motivation or effort (Jensen, 2013).

The Motivation of Low SES Students

"Motivation is to learning as oxygen is to breathing. It is the energy that human beings direct toward a goal; it initiates, mediates, and results from learning" (Ginsberg, 2014, p. 26). Motivation is a key component to student achievement. More specifically, Brophy (1987) claimed "The state of motivation to learn exists when student engagement in a particular activity is guided by the intention of acquiring the knowledge of mastering the skill that the activity is designed to teach (p. 40). However, students living in poverty are not as motivated as their

economically privileged peers due to teachers' lack of understanding their contexts and integrating learning opportunities that serve their academic and social needs (Jensen, 2013; Klem & Connell, 2004; Van der Klaauw, 2008). A survey by Yazzie-Mintz (2006) that measured over 81,000 students in 110 schools within 26 different states found that students who do not receive FARMS reported higher levels of motivation than students who were eligible for free and reduced meals. Supporting these survey findings, Schultz (1993) found that "socioeconomic advantage may further enhance the effects of achievement motivation on academic performance" (p. 222).

Motivation of low SES students is negatively impacted by the social and emotional conditions they encounter (Jensen, 2009). Living in daily economic hardship can adversely affect motivation to do well in school (Beegle, 2006). Lack of financial security created negative emotional responses for adults and their children. Low income environments and the accompanying financial hardships are linked with depressive symptoms, including lack of hope and optimism (Butterworth, Olesen, & Leach, 2012). Lower socioeconomic status is often associated with viewing the future as containing more negative events than positive ones (Robb, Simon, & Wardle, 2009). This lack of hope and optimism contributed to what Jensen (2009) defined as learned helplessness. Learned helplessness is a symptom of stress disorder or depression (Jensen, 2013) where one has low expectations for life.

Learned helplessness is linked to motivation through the theory of self-determination or the "motivation of behavior based on the expectancy or estimate of the probability that the behavior will lead to the desired goal" (Deci & Ryan, 2001). Low expectancy results in the feeling that one has little control over their success and therefore minimal chance of achieving success (Gurin & Gurin, 1970). This learned helplessness is the result of persistent lack of

control (Jensen, 2013; Kane, 1987). Learned helplessness leads to a motivational deficit that is defined by students believing that taking action is useless and "cognitive interference or students having difficulty learning that action can produce favorable results" (Kane, 1987, p. 411).

Research from 60 high-poverty schools demonstrated that the primary factor in student motivation and achievement isn't the student's home environment; it's the school and the teacher (Jensen, 2013; Irvin, Byun, Meece, Farmer, & Hutchins, 2011). Therefore, the teacher must examine practices and develop an environment that promotes student motivation. Teachers are active socialization agents capable of stimulating the general development of student motivation to learn (Brophy, 1987). In order to develop sustainable motivation to learn, teachers must consider the differences between intrinsic and extrinsic motivation. Intrinsic motivation refers to doing something because it is fundamentally interesting or enjoyable whereas, extrinsic motivation refers to doing something because it leads to a separable outcome (Ryan & Deci, 2000). Therefore, intrinsic motivation of low SES students is critical to achievement (Jensen, 2009). Supporting the importance of intrinsic motivation, Brophy (1987) claimed that, "Extrinsic incentives and competition are more effective more stimulating intensity of effort than for inducing thoughtfulness or quality of performance" (p. 44).

In relation to reading achievement, Baker & Wigfield (1999) stressed the importance of motivation because reading requires effort. Therefore, student interest is critical to their motivation to read (Guthrie & Cox, 2001). It is critical then for teachers to capitalize on intrinsic motivation by planning meaningful instruction that students will actively engage in because they are interested or enjoy the task (Brophy, 1987). Additionally, (Schunk, 1995) claimed that motivation and good instruction are associated and that motivated learners seek effective instructional environments. The development of these environments required teachers to have an

understanding of students beyond the classroom. According to Jensen (2013) teachers must create clear links between school and home or students will experience a demotivating disconnect. The literature therefore presents the need to answer an urgent question. The appropriate question in today's diverse classrooms is no longer how can I motivate students? Rather, it is what motivates this individual student and how do I develop my teachers that responds to their individual (Schlechty, 1997).

Impact of Poverty on Student Teacher Relationships

Student-teacher relationships are an essential component to academic achievement. "Teacher knowledge that comes from and builds closer relationships may increase motivation" (Schlosser, 1992, p. 129). These relationships become even more critical for low SES students and their teachers. "Supportive adult—child relationships can promote social, emotional, and academic adjustment among children and youth exposed to multiple risks" (Hughes, 2010, p. 55). The relationship building process can be more complex with students of low SES. "Children who enter school with high levels of socioeconomic risk may experience less optimal relationships with their teachers" (Hamre, Pianta, & Jerome, 2009, p. 922).

Literature provided evidence that support the significant challenges that educators may encounter when trying to develop a relationship that will result in them getting to know learners. Jensen (2009) states, "The lack of healthy and stable relationships can result in children raised in low-income households' failure to learn appropriate emotional responses in school, and to everyday situations (Jensen, 2009). Therefore, children may become frustrated, lack perseverance and persistence and therefore have a tendency to give up on tasks. It is critical for teachers to understand the challenges students have in building relationships. In fact, teachers often experience undesirable behaviors that communicate the contrary. "Children's lack of

secure relationships is manifested in the classroom through bids for attention, acting out, and anxiety. Commonly, kids display an "I don't need anyone's help "attitude" (Jensen, 2009, p. 87). These attitudes or behaviors are purposeful acts for low SES students and they are countered when schools embraced the philosophy that the student teacher relationship is the key factor (Schlosser, 1992). Research findings demonstrated that often students overcome these attitudes and attempt to develop relationships with adults only to be disappointed and exacerbate the social emotional challenges they experience.

Relationship building is complex and teachers struggle building relationships with students as well. According to (Pianta, La Para, Payne, Cox, & Bradley, 2002) students of low SES are more likely to be placed in teacher directed classrooms that are less positive than high SES peers. These conditions fostered poorer relationships between teachers and students (Pianta et al., 2002). Furthermore, students identified as having greater socioeconomic risks demonstrate more significant relational risks in teacher-student relationships (Pianta & Stuhlman, 2004). Regardless of the challenges, it is the teacher's responsibility to navigate complexities to develop relationships with their students. "The relationships that teachers build with students form the single strongest access to student goals, socialization, motivation, and academic performance" (Jensen, 2009, p. 20). Positive relationships between youth and adults improve many outcomes, including academic, behavioral, physical, and emotional well-being, particularly for low income and minority youth (McClure, Yonezawa, & Jones, 2010).

The cultural gaps between students and teachers, a lack of understanding of social class implications, and minimal knowledge of the impacts of poverty can influence their relationships with students. These misperceptions impact relationships and thus the learning experience. The literature revealed the complexity of these relationships and the intentional actions that must be

taken by educators. The development of positive student teacher relationships is integral to increasing the understanding of low SES student contexts. Relationships are difficult to build when teachers are not adequately prepared for this type of environment, lack cultural sensitivity and awareness, and use pedagogical methodologies that are not culturally congruent (Gay, 2000). Although there are occasions of educational success, the vast majority of low socio-economic schools continued to face "savage inequalities" that impact learning and achievement" (Kozol, 1991). Educators must have an understanding of the historical influence of poverty, the barriers it presented to learners and specific tactics that can be taken to break them down. It is paramount for educators to focus on understanding low SES students and the natural balance of environment that clearly has a profound impact on the child's academic achievement in school.

According to Ulluccil & Howard (2015) teachers must be class conscious in a similar manner that teachers are encouraged to be race conscious in order to build positive relationships. Ulluccil & Howard (2015) defined racially competent teachers as having an "awareness of race, of their own racism and the racism of others, and the significance of these perceptions in the teaching and learning process." Similarly, class-conscious teachers have many of the same features: an understanding how poverty does (and does not) impact students, a nuanced reading of how race and poverty overlap (and do not), and a keen eye to how stereotypes about poverty bias our interactions with poor children (Ulluccil & Howard, 2015).

This understanding assisted educators in overcoming the "pedagogy of poverty," where low level tasks dominate instruction and learning opportunities (Haberman, 2010). Contrary to this, pedagogical philosophies must appreciate cultural references and take into account the social conditions and hardships that many students of low SES face. When teachers use student's

cultural and social experiences as a means to implement best practices and to develop new knowledge, learning becomes more significant (Pardon, Waxman, & Rivera, 2002).

These relationships can only be established by learning the social composition of students. "Educators get to know their students well, not just their abilities and learning styles, but also their interests and motivations, and they use this personal knowledge to design more effective individualized instruction and guidance and help students feel competent in and connected to the world" (McClure et al., 2010, p. 5). This practice described by McClure is even more necessary when working with students of low socio-economic conditions. Unfortunately, teachers often have misconceptions of students living in low SES, and as a result they develop and adopt low expectations for them. Consistent exposure to low expectations can lead to the erosion of self-confidence, motivation, and academic success (Good & Brophy, 1997). A positive relationship can then be a mitigating factor to address low student motivation. "For low SES students, the primary motivation for their success will be in their relationships with teachers" (Payne, 2005, p.112

Learner Profiles

A key to academic achievement is understanding the context of students in order to development of meaningful learning opportunities. The purpose of learner profiles is to develop an understanding of the learner that can be utilized to enhance motivation and strengthen teacher-student relationships. The collection of information related to a student's culture and interests can prove to be difficult without a structured process and teacher ability to access information from students can vary. "Teachers are unaware of or inattentive to ways in which culture can impact attitudes about school and learning-profile preferences provide a reality that often leads to both the academic and socioemotional detriment of these learners" (Tomlinson et al., 2003, p.

123). Tomlinson (2003) defined learning profile as a student's preferred mode of learning that can be affected by a number of factors, including learning style, intelligence preference, gender, and culture" (Tomlinson et al., 2003, p. 129).

This information or knowledge was utilized to strengthen teacher perceptions of the relationships they have with students, specifically students of low SES. As a result, teachers created learning opportunities that increase motivation in reading. Self-motivation can be stimulated by asking students to list interests and identify questions they would like to have answered (Brophy, 1987). A student profile must be created with the intention of using information such as interests to modify or create learning opportunities that will increase motivation. "Learner profiles should include information on what students know and can do, down to the granular level of individual standards and concepts, as well as information about their learning preferences and interests. The profiles should be constantly growing and evolving, most believe, in order to capture new information so as to paint a more holistic portrait of each learner" (Herold, 2014).

Historically, learner profiles were traditionally referred to as a "student learning history", a term coined by Benjamin Bloom to describe the aggregate of personal learning that each student brings to a particular course, class, or school program (Keefe & Jenkins, 2002). Relative to theory of constructivism, the purpose of collecting learner's' history was to tell us what a student knows and can do at a given point, the knowledge, skills and attitude that the student possessed before beginning a new learning experience (Keefe & Jenkins, 2002).

Multiple literature findings demonstrated achievement benefits when learner profiles are developed; specifically, when instruction and opportunities to explore and express knowledge match a learner's intelligence preferences (Tomlinson, 2009). At Conway Elementary School, in

St. Louis, Missouri, the use of learner profiles has been attributed to progress on standardized tests. The number of students scoring below the 65th percentile on the state test in reading fell from 38 percent to 24 percent in the first three years utilizing this differentiation initiative (Tomlinson, 2009). Researchers linked these findings to students learning more when they worked in ways that work for them and because they entered test-taking with more confidence about their learning (Tomlinson, 2009).

Research indicated that the collection of student interests was influential in the progress they make in relation to literacy achievement. Belloni & Jongsma (1978) conducted a study of seventh grade students attending a large suburban middle school. They measured the performance of reading comprehension of low achievers when reading a text of high interest and low interest. Order effects were controlled by having half the students read the high interest stories at the first session and low interest stories at the second session and reversing the order for the other students. The results of this study indicated that low-achieving seventh grade students comprehended material they considered highly interesting better than they comprehend material they rated as low interest (Belloni & Jongsma, 1978).

The results also suggested that the students transcended their frustration levels when reading materials were highly interesting to them. "Reading Comprehension performance increased from about 30% on low interest selections to nearly 40% on high interest passages" (Belloni & Jongsma, 1978, p. 109). Furthermore, findings revealed that instruction in comprehension may be more effective when high interest materials are used and students may profit from the recreational reading of difficult materials, provided they view them as highly interesting. Aside from providing students with choice, the use of a learner profile would allow teachers to engage students in topics of their interest, and thus raise motivation (Guthrie &

Humenick, 2004). It is critical to note that researchers have shown that, especially for students in Grades 3-5, motivation for reading predicts reading achievement on standardized tests" (Guthrie, Wigfield, Humenick, Perencevich, & Taboada, 2006, p. 232).

Cooperative Learning

Cooperative learning (CL) is a CRT strategy that enhanced reading comprehension by increasing student motivation through fostering an interactive learning environment for students from diverse backgrounds (Montgomery, 2001). According to Jacob & Mattson (1987) "CL involved small groups of two to six students in tasks that required cooperation and positive interdependence. Students aid their peers in completing learning tasks and are rewarded for rendering that aid" (p.3). Johnson, Johnson, Smith, & Sheppard (2005) defined CL through the following components: positive interdependence, individual accountability, face-to-face promotive, appropriate use of collaborative skills and group processing.

CL has been attributed to increases to academic achievement as well. Slavin (1995) conducted a study of cooperative learning methods in 64 elementary schools. These methods were defined by utilizing group rewards based on the sum of individual members learning, or a total group score. Slavin (1995) found that 78% of the 64 elementary schools found notable positive effects on student achievement and, equally as important, none found negative effects. More specific academic achievement was demonstrated in a study conducted by Stevens & Slavin (1995) that examined five elementary schools in suburban Maryland that were focused on cooperative learning methods. The students who were in grades 2 – 5 outperformed peers in traditional school settings in reading and vocabulary comprehension and language expression as measured by the California Achievement Test (Stevens & Slavin, 1995).

The academic achievement growth that occurred as a result of CL can be attributed to increases in student motivation. Positive interdependence or group goals motivated students to help one another learn and provide interest in one another's success which contributes to an increase in student motivation (Slavin, 1988). Johnson & Johnson (2009) defined this motivation in one another's success as the social interdependence theory. This motivational theory of CL is based on a student's investment in their group resulting in increased motivation by group membership rather than self-identity (Johnson & Johnson (2009). Motivation is also founded on the creation of an interpersonal reward structure in which group members will give or withhold social reinforcers (praise, encouragement) in response to their group-mates' task-related efforts (Slavin, 1987). This reward structure resulted in high student motivation as a result of student's reception of reward based on how their fellow group members perform (Slavin, 1995).

This motivation proved to be specific to students from culturally diverse backgrounds. Cooperative learning frequently proved to be effective for students from culturally diverse families because of the social context and opportunities to practice oral language skills. In some communities, working together to accomplish daily tasks is a common part of everyday life. As a result, cooperative learning provided students with the opportunity to mirror their home culture in school (Bui & Fagan, 2013; Slavin, 1988).

At the foundation of culturally responsive instruction is the development of community (Gay, 2000). This sense of community is relevant to many cultures, such as Latino, Native American, and Asian American, because of the common values that prioritize collaborative problem solving (Gay, 2002; Toppel, 2015). Specifically, Gay (2002) explained that "many students of color grow up in cultural environments where the welfare of the group takes

precedence over the individual and where individuals are taught to pool their resources to solve problems. "When the group succeeded or faltered, so did its individual members" (p. 111). This is supported by Hammond (2015) who stated "Our brains are wired to favor a communal view of the world because it enhances our chances of survival" (p. 25). This communal view is specific to certain cultures. For example, communal view is favorable among African American, Latino, Asian, Middle Eastern and Slavic cultures, where most European cultures hold individualistic values (Hammond, 2015). This means that European cultures commonly value individual achievement and functioning more than those cultures that value communal achievement. (Hammond, 2015).

Furthermore, CL engaged student voices because "students have opportunities to share ideas and talk to one another, which helps them feel validated as important members of the learning community" (Toppel, 2015, p. 553). The engagement of student voices is extremely important because each student brings different cultural capital to the CL experience. Specifically, each student brings different knowledge about the topic depending upon their specific experiences, culture, and language (Bui & Fagan, 2013).

Students of low SES are beneficiaries of culturally responsive strategies such as CL.

Research findings demonstrated that students living in low SES receive less engaging instructional practices, specifically CL opportunities (Solomon, Battistich, Kim & Watson, 1996). This lack of exposure to CL is correlated with the research that claims teachers of high poverty students feel the need to control the classroom through lower student autonomy and fewer opportunities to engage in learning as groups (Solomon, Battistich, Kim & Watson, 1996). The CL structure provides students with autonomy and choice by establishing an authority structure (Slavin, 1980). "The authority structure of the classroom refers to the control that

students exercise over their own activities, as opposed to that exercised by teachers and other adults" (Slavin, 1980, p. 316). However, researchers have found that the meaningful participation associated with CL results in increased academic motivation in high poverty settings (Gay, 2000; Slavin, 1995; Solomon, Battistich, Kim & Watson, 1996). Further, CL supported relationship development to help low SES students develop a sense of belonging and a sense of connectedness to their school (Kovalik and Olsen, 1998; Slavin, 1980).

The implementation of CL opportunities should be done strategically. Teachers need to consider grouping practices, methods of cooperative learning, and the roles of responsibilities of students within the group. CL teams should be heterogeneous; diverse in gender, cultures, and academic ability (Jacob & Mattson, 1987). According to Felder and Brent (1994) heterogeneous grouping provided advantages to both groups of students. Specifically, weaker students gained from being exposed to higher modes of thinking and analyzing problems, while the strong stronger students had a more in-depth understanding of concepts because they are engaged in discourse that requires them to explain and break it down for other students (Felder & Brent, 1994). Doolittle (1997) connected this to Vygotsky's theory of learning by claiming that cooperative learning should lead to the upper end of ZPD so that students develop cognitively in order to master the task.

The structure for CL required students to have the time to develop as a team. Felder & Brent (1994) recommended students be provided with the necessary time to become acquainted, to identify one another's strengths, and to learn to support and coach one another. Most practitioners recommended that groups remain together for the duration of an extended project or for a series of ongoing activities, usually for about half a semester (Felder & Brent, 1994).

Literature Circles

According to Daniels (1994) literature circles are small groups of students that are focused on reading the same text. Similar to CL, literature circles promoted a balance of individual and collective accountability while providing exposure to varied interpretations and opportunities to increase student comprehension (Barone & Barone, 2012). In addition to these benefits, literature circles provided students with the opportunity to make strong connections to the text. Specifically, opportunities for students and teachers to make connections to their own and other's cultures are prevalent. As Schunk (1996) stated, "Learners bring their own understandings to social interactions and construct meanings by integrating those understandings with their experiences in the context" (p. 244).

Literature circles are an organizational model that provided students with the opportunity to relate texts to their own historical, cultural, and social issues while sharing opinions on these topics in an educational setting (Fredericks, 2012). Additionally, literature circles contributed to the foundation of a CRT environment by allowing teachers to acquire specific knowledge regarding their students' cultures to help shape the curriculum effectively (Powell, Chambers-Cantrell, & Rightmyer, 2013; Gay, 2000). Finally, similar to CL, literature circles increased a students' motivation to read (McElvain, 2010).

Culturally Responsive Teaching

The academic achievement of students from culturally diverse backgrounds would improve if educators made efforts to implement classroom instruction in a manner that was responsive to student's home cultures (Gay, 2000). Gay (2000) defined this classroom instruction as culturally responsive teaching (CRT) or instruction that offered ways to support diverse learners in an inclusive classroom as it approached education by looking at the whole

child by using cultural capital to impart knowledge, skills, and attitudes. Relevant to the problem of practice, Gay (2000) further defined CRT as "using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant and effective for them (Gay, 2000, p. 29).

Goldenberg (2014) referred to this cultural knowledge as cultural capital. Cultural capital is "tangible cultural identifiers such as mannerisms, dress, beliefs, and values that advance a person's self-worth" (Goldenberg, 2014, p. 116). A teacher's understanding of cultural capital is critical to their ability to develop meaningful relationships, motivate their students, and develop relevant curriculum. Goldenberg (2014) further claimed, "It is the responsibility of the teacher to recognize this capital and pedagogically utilize it in the classroom in ways to enhance student learning" (p. 117). The acquisition of knowledge regarding student's cultures in order to make connections to the curriculum is the first step in creating a CRT environment (Powell, Chambers-Cantrell, & Rightmyer, 2013; Gay, 2000). Therefore, successful implementation began when teachers embraced the responsibility of learning the cultures represented in their classrooms and conversion of this knowledge into purposeful, planned instructional practice (Gay, 2010). The development of learner profiles assisted teachers with fulfilling this responsibility.

Professional Development using Hammond's CRT Framework

Teachers must have a fundamental understanding of CRT in order to enhance the learning experience of all cultures. This fundamental understanding can be based on Hammond's (2015) "CRT practice areas." There are four practice areas; awareness, community building, learning partnerships, and information processing (Hammond, 2015) framed the cultural competence professional development to address the problem of practice. Cultural competence is our understanding of the differences in the way members of different cultural

groups prefer to learn (Gay, 1995). For the purposes of this literature review and study, CRT and cultural competency were used interchangeably.

Awareness is described as a teacher's awareness of their own culture in order to become aware of the cultures in their classroom. Awareness is the foundation of CRT as it is driven by increasing cultural capital (Goldenberg, 2014) in order to inform teaching practices. This awareness of the cultures in your classroom is complimented by learner profiles which build understanding from the student and parent perspective.

The second practice area was community building (Hammond, 2015). This practice area is described as focusing on developing learning environments that promote collectivism or the value of group over the individuals in the group (Hammond, 2015). This promotion of collectivism focused on developing a learning environment that promotes the development of safety and security for students to take intellectual risks (Hammond, 2015). Gay (2002) provided an explicit example of collectivism by explaining the importance of teachers knowing which ethnic groups give priority to communal living and cooperative problem solving and this preference influences educational motivation. The practice area of community building supported the implementation of cooperative learning groups.

The third practice area is learning partnerships which Hammond (2015) defined as the development of social emotional partnerships to engage students in learning. Relative to building social emotional intelligence or well-being are motivational strategies to increase engagement in learning. In respect to learning partnerships, building connections to students and connecting them personally to the curriculum results in increased motivation. As Hammond (2015) states, "Culturally responsive teachers take advantage of the fact that our brains are wired for connection (p. 19).

The fourth practice area is information processing which is described as understanding the connection of culture to how the brain receives and processes information (Hammond, 2015). This practice area examined the impacts of the culture of classism on information processing. Specifically, the way the poverty impacts the brain and the evidence of high cortisol levels on learning (Jensen, 2009).

Relevant to increasing the understanding of low SES students, Toppel (2015) stated the need to be "responsive to specific individuals cannot be generalized or prescribed and as a result educators must invest time to study their culturally and linguistically diverse students to better equip themselves to implement practices specifically geared toward engaging those particular students" (p.559). The cultural specifics of ethnic and social class groups can empower teachers with information that will make the schooling experience more engaging and therefore motivating. Although intended to meet the needs of diverse ethnic groups, CRT strategies may prove to be beneficial for low SES students. According to Sato & Lensmire (2009)

"Recognizing that students who have lived a life in poverty as having different cultural norms (language, custom, tradition, and experience) than those expected in a classroom would result in drawing on the empirically grounded work of culturally relevant pedagogy to be particularly helpful" (p. 367).

Using Student Interests for Text Selection

Text selection was a key to the level of motivation of reader's working in literature circles. Teachers understand that student learning required sustained energy and therefore the use of texts that will attract and engage students is necessary (Guthrie, 1981). Guthrie (1981) specifically explained, "High interest materials are intriguing, and students will study them with

pleasure for a long period of time, whereas low interest materials are boring and do not command attention" (p. 984).

In relation to CL, "when students become interested in a specific text, they can come together to form a small cooperative group" (Sanacore, 2013, p. 116). Similarly, this interest of providing students with the opportunity to choose books is a key to the success of the cooperative learning strategy; literature circles (Clarke & Holwadel, 2007). More specifically, Clarke & Holwadel (2007) claimed that selecting the right book can motivate student to engage in discussions and is a critical tool in initiating and maintaining student attention within literature circles.

Within these CL groups, it is critical that teachers presented texts from multiple genres that inspired critical thinking and various perspectives. Students were then able to select texts based on their preferred genres and individual interests (Barone & Barone, 2012; Daniels 1994). Student text selection based on interest supports the CRT strategy of building background knowledge. Students who are interested in a specific topic are likely to have acquired information about it through a variety of experiences and this exposure to concepts and ideas increased their reading comprehension ability more than students that do not have the same background knowledge (Guthrie, 1981).

When students have the opportunity to select books they are interested in, their motivation increased. Guthrie and Humenick (2004) examined a significant number of studies to determine motivational impacts on student choice in reading and the impact of interesting texts on collaboration on motivation. The reported effect described in this study proved that student choice in regards to text selection has a sizable impact on reading motivation (Guthrie & Humenick, 2004).

The causes of low achievement and motivation are identified in the literature as physiological and psychological stressors that impact teacher student relationships, consistent use of traditional pedagogies with low SES students, and the need to empower learners by utilizing their individual cultures, interests and developmental levels to plan and implement appropriate reading strategies.

Literature and Data to Assess Need

With the number of children living in poverty increasing, educational systems must increase teacher understanding of low SES students and prepare teachers with the specific skills to use this knowledge to address academic challenges such as the socioeconomic achievement gap. The increase in the numbers of students living in poverty is simultaneously occurring with a widening of the income achievement gap (Ulluccil & Howard, 2015). According to The Annie E. Casey Foundation (2014), "Reading proficiency levels have increased significantly more for higher-income students (17 percent improvement) than for their lower-income peers (6 percent improvement). As a result, the gap in proficiency rates between low-income and higher-income children widened by nearly 20 percent over the past decade and got worse in nearly every state" (The Annie E. Casey Foundation, 2014, p.2). Findings from the needs assessment, demonstrate a gap in reading proficiency between low SES and high SES students on the Maryland School Assessment (MSA) in Montgomery County Public Schools from 2008 – 2014 (Moran, 2015).

The relationship between academic achievement and family income was examined by a comprehensive study conducted by Sean Reardon in 2011. This study examined the relationship in the United States over the last 50 years. Reardon utilized data from the National Center for Education Statistics (NCES) and National Assessment of Educational Progress (NAEP) from 19 states to draw conclusions on the existence of an income achievement gap. Student performance

was compared with data on students' family socioeconomic characteristics, such as family income, parental education, and parental occupation. Reardon (2011) found "that the income achievement gap--the difference in the average standardized scores between children from families at the 10th percentile of income distribution and children at the 90th percentile--is now "nearly twice as large as the black-white achievement gap" (p. 94).

Specific to the criticalness of third grade literacy achievement, Hernandez (2012) examined nearly 4,000 students who were below grade level in reading at the end of third grade. Hernandez's (2012) analysis of these students revealed the following: 26 percent of children who were poor for at least one year and did not read proficiently in third grade failed to graduate from high school and 31 percent of low SES Black students and 33 percent of low SES Latino students who did not read on grade level at the conclusion of third grade failed to graduate from high school. This study clearly supported the need for intervention.

Literature supported that low SES students are perceived as less motivated due to their lack of hope and optimism manifesting itself as lack of motivation (Klem & Connell, 2004; Jensen, 2013; Payne, 2005; Van der Klaauw, 2008; Gurin, Gurin, Corcoran & Duncan, 2005). Some of this lack of motivation can be attributed to the inaccurate perceptions of low SES students. "Children from poverty are being identified and labeled with grossly overgeneralized, deficit-laden characteristics that put them at risk of being viewed as less capable, less cultured, and less worthy as learners" (Sato & Lensmire, 2009, p. 366).

Overgeneralization can be attributed to the cultural gap between teachers and students in regards to race and social class (Gay, 1995). In relation to the problem of practice, Gay (1995) cited a population gap in relation to SES; specifically, there are growing populations of students from poverty while there are increasing numbers of teachers from middle class. The differences

in race and social class contributed to teacher challenges in acquiring cultural knowledge; however, cultures are also extremely complex. "Cultural complexity can be defined by the hundreds or even thousands of culturally learned identities, affiliations, and roles each person assumes at one time or another" (Pedersen, 2000, p. 32). The literature demonstrated the need for interventions to support teacher ability to acquire sensitive information about their students' cultures. Their lack of understanding of the cultural profiles of students means teachers do not have "frames of reference and points of view similar to their ethnically and culturally different students because they live in different existential worlds" (Gay, 1995, p. 97).

Target Population

The target population for the needs assessment is third grade students at the state, county, and within the professional context located in Silver Spring, Maryland. Schools with similar SES and racial populations will be targeted to more specifically assess need. These elementary schools are as follows, Good Elementary, Happy Elementary, Any Elementary, and GF Elementary.

Students are classified as low income by measuring their family's annual income which qualifies them for Free and Reduced Meals (FARMS). Students will be classified low SES who receive FARMS. This is calculated based on family income level. For example, a family whose annual income is \$21,775 or less and has one student qualifies for FARMS. The annual income allowance increases depending on the number of children they have. For example, a family with two children and an annual income of \$29,471 or less or a family with three children with an annual income of \$37,167 or less qualifies for FARMS.

Description of Instrument

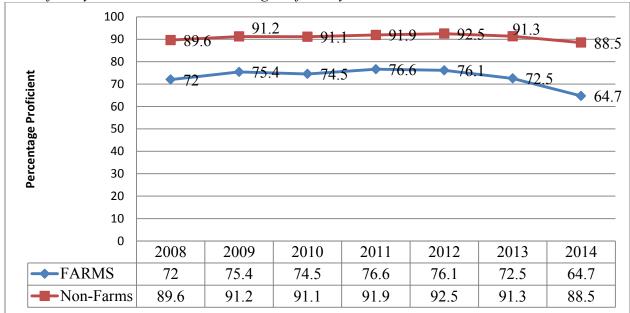
The collection of data for the needs assessment was conducted through the examination of student performance at the state, county, and professional context according to the Maryland School Assessment (MSA) results in third grade reading from 2008 through 2014.

Initial Summary of Results

Assessment of need for intervention was determined as a result of tables 1 – tables 4. This need can be clearly assessed from the MSA reading data at state level, Montgomery County level, and within the professional context, Good Elementary School. The tables clearly demonstrated a prevalent income achievement gap in grade 3 reading proficiency on the MSA at all three levels. Each graph measured the percentage of third grade students proficient or advanced from 2008 – 2014. At the state level, the income achievement gap in grade 3 never came within 15 percentage points as measured by FARMS and non-FARMS. In fact, the largest achievement gap is in 2014 with 23.8 percent. (See Table 1)

Summary of MSA Results

Table 1
State of Maryland Grade 3 MSA Reading Proficiency FARMS vs. Non-FARMS: 2008-2014



The income achievement gap was substantial in Montgomery County Public Schools (MCPS) as well. There were similarities between MCPS data and the professional context of Good Elementary School data. (See Table 2 and Table 3)

Table 2

MCPS Grade 3 MSA Reading Proficiency: FARMS vs. Non-FARMS 2008-2014

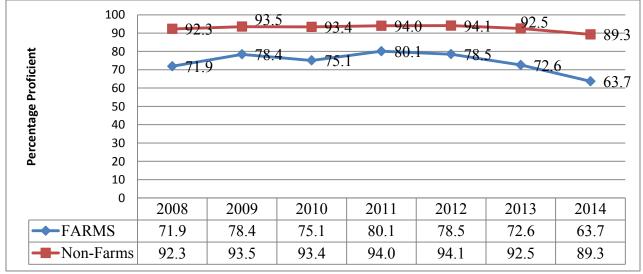
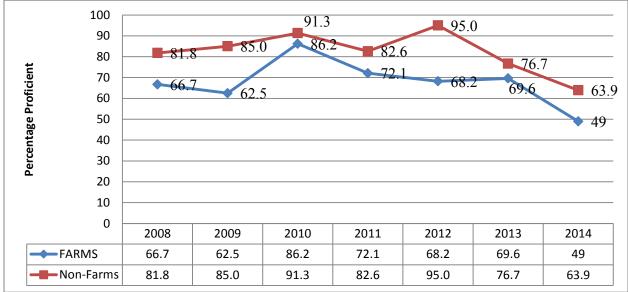


Table 3

Good Elementary Grade 3 MSA Reading Proficiency: FARMS vs. Non-FARMS 2008-2014



Tables 4 – 6 included three additional schools' performance data on the MSA from 2008 – 2014. These schools were selected because of similar FARMS percentages and racial demographics. Additionally, they are within a 5-mile radius of one another. The tables below continued to assess the need for interventions to be implemented to address the income achievement gap between low socio-economic and high socio-economic third grade students.

Table 4

Any Elementary Grade 3 MSA Reading Proficiency: FARMS vs. Non-FARMS 2008-2014

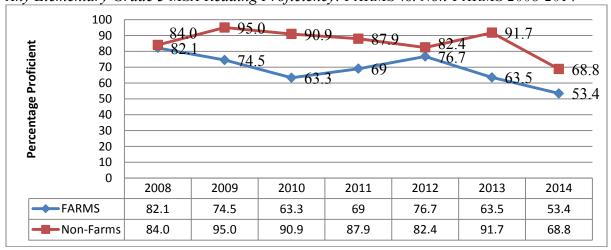


Table 5

Happy Elementary Grade 3 MSA Reading Proficiency: FARMS vs. Non-FARMS 2008-2014

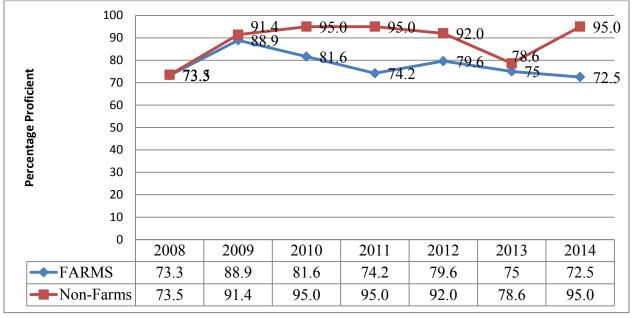
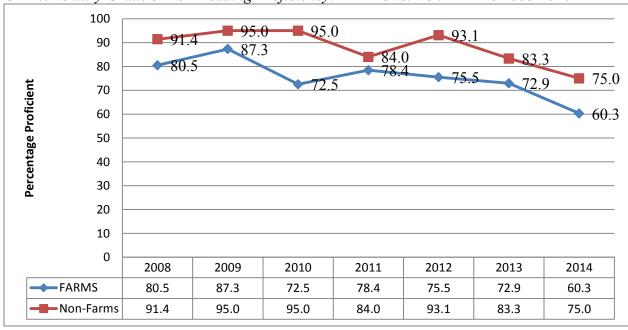


Table 6

GF Elementary Grade 3 MSA Reading Proficiency: FARMS vs. Non-FARMS 2008-2014



Relevant Data to Support Literature

In order to determine the most effective intervention, the causes and factors of the income achievement gap in third grade literacy were examined. In order to establish concrete research and support the identification of the intervention, the needs assessment examined the prevalence of the third-grade literacy achievement gap at the state of Maryland, Montgomery County Public School System, and within the professional context, Good Elementary School in Silver Spring, Maryland. Additionally, similar school populations were examined to determine if the income achievement gap was consistent. These schools included third grade performance at Any Elementary, GF Elementary, and Happy Elementary. The study revealed a substantial and consistent gap in reading performance on the MSA between high SES and low SES students from 2008 - 2014. In order to identify high socioeconomic and low socioeconomic students, their Free and Reduced Meals (FARMS) status was utilized. Students who received FARMS were identified as low income students and students who did not receive FARMS were identified as high income students.

At the state level, the MSA demonstrated that the gap from 2008 to 2014 between all students and students receiving Free and Reduced Meals (FARMS) is never less than 15% of the total students scoring proficient. In fact, the largest achievement gap occurred in 2014 with 23.8 percent. The scores at the Montgomery County level and within the identified elementary school demonstrated a significant gap in reading achievement as well. On the MSA from 2008 to 2014 at the county level, the smallest gap was 13.9%, with the largest gap of 25.6% occurring in 2014. On the MSA from 2008 to 2014, Good Elementary experienced a consistent gap as well. The smallest gap was 5.1%, with the largest gap of 26.8% occurring in 2012.

The third-grade literacy achievement gap between low socio-economic and high socio-economic is related to teachers lack of understanding of low SES student contexts resulting in low motivation. All stakeholders play an integral role in embracing the need to develop a deeper understanding of low SES students to influence increased motivation. The structure of understanding the learning needs of students living in low socio-economic status is a key to addressing the discrepancies in literacy achievement between high and low income third grade students. The implementation of learner profiles to support strengthening this understanding and inform instructional practices addressed this need.

Research Questions

The existing literature demonstrated the need to examine four questions.

- **RQ1**: Does the motivation of students increase in reading after their teachers incorporated texts that represented their interests in cooperative learning literature circles?
- **RQ2**: Does the motivation of low SES students whose teachers construct cooperative learning opportunities utilizing learner profiles increase more than their high SES peers?
- RQ3: Do teachers who participated in the professional development on culturally competency have increased perceptions of student motivation?
- **RQ4**: Is there a correlation between teacher perceptions of relationships with students and student motivation?

Conclusion/Next Steps

Themes emerged when reviewing reading achievement literature focused on low socioeconomic students. These themes included substantial income achievement gaps in reading proficiency throughout the United States among third grade students, research supporting the complexity of building relationships with students of low socio-economic status and the learning

benefits when empowering students with choice, self-regulation, and an understanding of their learner profile.

Haberman (2010) indicated that there is a connection between specific teacher practices and literacy achievement. He described these teaching practices as providing real choices that related to cultural and real world experiences, selecting topics to research, determining what resources they need or want, or planning how they will present their learning (Haberman, 2010). According to Sanacore (2009), "Students tend to work harder and do their best when their emotions are connected to their learning. When teachers consider children as whole people, instead of empty receptacles to be filled with academic knowledge, the children are more apt to positively respond to curricular expectations. This underpinning is vitally important for literacy success, as teachers direct their thoughtful plans and focused energy toward increasing students' emotional and academic engagement across the curriculum" (p. 73). Finally, addressing the third-grade income based reading achievement gap would prevent "the well documented fourth-grade slump by educators who are genuinely caring, highly competent, and deeply responsive to children's learning strengths and needs" (Sanacore, 2009, p. 74).

Educators must have an understanding of the historical influence of poverty, the barriers it presents to learners and specific tactics that can be taken to break those barriers down (Jensen, 2009; Ladson-Billings, 2006). It is paramount for educators to focus specifically on understanding the low SES learner and the ecology of the environment that clearly has a profound impact on the child's academic achievement in school. By increasing the understanding of the social composition of learners, effective student teacher relationships can be established that increase the motivation and engagement of the learner. The increase in relationship

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development and motivation will be achieved through professional development that supports the development of learner profiles to plan and implement cooperative learning groups.

CHAPTER THREE

METHODOLOGY

Introduction

An Intervention to Impact Deficient Teacher Understanding of Low SES Students

As demonstrated in the literature review, the research affirms that there is indeed a significant problem of practice that requires an intervention. There is significant promise for a well-designed professional development plan that will provide teachers with knowledge and resources to increase understanding of low SES student contexts to influence motivation. The literature suggested that by increasing this understanding and eliminating traditional stereotypes motivation may increase in reading. This increased understanding of low SES student contexts may also provide teachers with the tools to better address achievement gaps that exists between high and low SES students.

As discussed in previous chapters, the resource that will be provided to increase this understanding will be learner profiles. Professional development will be provided about how to utilize this tool as a means to understand the individual contexts of low SES students and inform teaching practices. The teaching practice that will be informed is academic grouping, specifically cooperative learning methodology in literature circles. The ability to build an understanding of the student cultures reflected in classrooms and cooperative learning methodology are founded in CRT framework. Therefore, this framework and research will support the professional development.

This intervention was provided to 104 third grade students and 38 teachers at an elementary school, identified as Good Elementary School (GES) in suburban Maryland. The intervention occurred over a twelve-week period and included four PD sessions that supported

the implementation of cooperative learning literature circles in five third grade classes.

Professional development was provided in conjunction with the delivery of a technology based resource, a learner profile for each of the participating students. Pre and Post intervention quantitative data was collected at GES and measured against a comparison school, Happy Elementary School (HES) also located in suburban Maryland.

This chapter will describe the desired outcomes for the study, research design methodology, participants in the study, sampling, data collection instruments, and the sequence of professional development,

Outcomes

Multiple outcomes were anticipated. Short term desired results were increased capacity of teachers to be culturally competent and implement cooperative learning through student selected literature circles. Additional anticipated short term results were increased student motivation of all students, particularly students of low SES, increased teacher perception of student motivation and increased perceptions of relationships that teachers have with students. Median outcomes would be to alter the misperceptions that teachers have about low SES students and significantly increase their understanding of all low SES students. Ultimately, the longer-term effects which will not be measured within this research design and will be areas for future study, include an examination of the income achievement gap in the intermediate grades (3-5).

Methods

This study was a quantitative study to examine the impact of PD on deficient teacher understanding of low SES student contexts influence on motivation. A quasi-experimental pretest/posttest design was selected as a result of randomization of participants not being

possible. Specifically, a comparison group design will be utilized to "assess casual effects that measure an important program outcome and estimate impact by comparing the difference between treated and untreated groups when random assignment to the groups has not be used" (Wholey, Hatry, & Newcomer, 2010, p. 126). The important dependent variable being measured was student motivation through the view of students themselves as well as teacher perception of this motivation. Also measured will be the perceptions of relationships teachers have with students.

A quantitative survey design was used through the administration of three separate surveys intended to measure these dependent variables. These surveys were administered to students and teachers at the treatment and comparison schools at the beginning of November and the beginning of February. Student scores on the MRP-R, PSM, and STRS were be entered into SPSS. Pretest and posttest comparisons were analyzed using Analysis of Variance (ANOVA). Additionally, covariance measurement will assess how teacher perceptions of relationships with students as measured by the STRS and student motivation as measured by the MRP change together. Quantitative analysis is driven by the following hypothesis: as a result of teacher access to profiles containing detailed information about students' cultures and interests and multiple sessions of PD focused on CRT strategies, there will be an increase in student motivation and teacher perception of relationships as measured by a pre and post survey.

Participants

Participants for this study were third grade students (n=176) in nine classrooms from two elementary schools, GES and HES, both located in a suburban school district in Maryland.

Participants also included teachers (n=57). The selection of a comparison school was based on their similar demographics and socioeconomic status (Table 7). In addition the treatment and

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comparison schools are located in the same city, approximately 3.1 miles from each other. The similarities of the treatment and comparison schools supported their comparability.

Other research elements were designed to support adherence to the design. First, all four PD sessions occurred during the regularly scheduled staff training time which resulted in no additional meetings. In accordance with Instructional Review Board (IRB) procedures, teachers had the right to exclude themselves from the study (see Appendix B), but as it was part of their assigned work, they were still involved in the meetings, so there was no additional time or effort to participate. This helped to eliminate potential bias of volunteers (Shadish et al., 2002), who may be more intrinsically likely to embrace and experiment. Additionally, in accordance with Instructional Review Board (IRB) procedures, students had the right to exclude themselves from the study (see Appendix C)

Table 7
Student Demographics Treatment and Comparison

Area	GES	HES	
Male	52.4%	47.7%	
Female	47.6%	52.3%	
Ethnicity			
African American	34.3%	22.5%	
Asian	8.1%	8.7%	
Hispanic	47.3%	50.3%	
White	8.1%	15.2%	
FARMS	66.3%	62.3%	
Non-FARMS	33.7%	37.7%	

Discrimination in individual differences (Lipsey, 1998) was analyzed by looking at potential discrepancies in results between teachers of varying levels of experience. As indicated in table 8, years of experience varied from five years to eighteen years.

Table 8

Race and Experience of Third Grade Teachers

Participant	Demographics	Years of Experience
Teacher 1	African American	16
Teacher 2	White	18
Teacher 3	White	15
Teacher 4	White	9
Teacher 5	White	5

Five classrooms (n=103) at GES served as the treatment group and four classrooms (n=73) at HES served as the control group. Relative to socioeconomic status with the treatment site, high SES was (n=47) and low SES (n=56) (Table 9). At the comparison school, high SES was (n=44) and low SES (n=29). During the implementation of the program, seven students moved and, as a result, their data was not included. The participants included all students, including students that receive special services, English Speakers of Other Languages (ESOL) and Individual Education Plans (IEP).

Table 9
Student Participant Demographics

Area	GES	HES
Low SES	n=56	n=44
High SES	n=47	n=29
Total	n=103	n=73

Participants also included teachers that instructed students in reading at both sites (n=57). A larger return for the treatment group (n=32) versus the control group (n=25) was attributed to the treatment group having a larger staff due to higher student population. Participants at the treatment school received professional development on cultural competency, while third grade teachers received more specific professional development on the CRT strategy, cooperative learning.

Demographics for teacher participants were similar for the treatment and comparison schools. These demographics reflected Gay's (1993) research findings that less than 15 percent of teachers and 12 percent of school administrators are members of ethnic minorities. The differences in demographics and social class of teachers and students made the cultural competency of teachers extremely valuable in both the treatment and comparison schools. Table 10 illustrated the demographics of both schools.

Table 10

Teacher Demographics Treatment and Comparison

Area	GES	HES	
Male	12.7%	7.1%	
Female	87.3%	92.9%	
Ethnicity			
African American	19.0%	17.9%	
Asian	4.8%	7.1%	
Hispanic	4.8%	1.8%	
White	71.4%	71.4%	

Design Process for Learner Profiles

A critical component of the methodology of this study was the design of the learner profile. The purpose of the learner profile was to collect critical information to inform teachers of their students' cultural backgrounds and interests, particularly low SES students. Student information was collected through the use of on-line surveys delivered to parents in order to provide information on family's cultural background and through student focus groups to access information on individual interests. The survey was titled Cultural Background Questionnaire (CBQ) (Appendix D). The survey instrument was delivered to 103 families with a return rate of 74.7% or 77 families. The focus groups accessed all 103 students to extract information about interests. Both surveys were administered in the fall of 2016 over a three-week period.

CBQ was explained to the families through multiple meetings during different times of the day to ensure they had the opportunity to attend. Additionally, to ensure equal access to families whose dominant language was not English, interpretation services were provided. Surveys were also sent out through email with a detailed description of the study to reach participants that were unable to attend the meetings. The use of the school website and social media were also utilized to encourage families to complete the survey. It is important to note that the CBQ was completed collaboratively, with both parents and students providing information.

To extract information about student interests to support selection of books for cooperative learning literature circles, students participated in focus groups to discuss their interests utilizing guiding questions. These focus groups collected student response data utilizing Student Interest Inventory (SII) (Appendix E) which were documented using google forms. These focus groups were conducted during student lunches in a casual and secure setting that encouraged active participation. To support completion of these focus groups within the first three weeks of schools, facilitation was supported by the staff development teacher, literacy coach, math content coach, and the researcher. The results of these surveys were used to develop a cultural/interest profile for each individual student (Appendix F). This information was combined with student performance data relative to reading which teachers accessed and examined to support planning relevant instruction.

To respond to the problem of practice of deficient teacher understanding of low SES contexts, the design of this intervention collected and distributed data focused on these students' individual cultures and interests. Access to this information supported teacher development into "cultural brokers or teachers who understand different cultural systems and know how to build bridges or establish linkages across cultures that facilitate the instructional process" (Gay, 1995,

p. 100). This information was utilized to influence motivation through the development of cooperative learning groups and support the development of meaningful relationships which will also influence motivation.

Determining Low and High SES for Research Design

For the purposes of identifying students as low and high SES, FARMS status will be utilized. The state of Maryland has set income qualifications for a child to receive FARMS (Table 11). This data was provided to the researcher from the county utilizing a passcode and only providing the student ID numbers so access to restricted county programs could only be used to identify the students.

Table 11

Income Chart: Qualification for FARMS

Number in Household - Income	Annual	Monthly	Weekly
1	21,978	1,832	423
2	29,637	2,470	570
3	37,296	3,108	718
4	44,955	3,747	865
5	52,614	4,385	1,012
6	60,273	5,023	1,160
7	67,951	5,663	1,307
8	75,647	6,304	1,455

Sampling

In order to pursue the research methods that would accurately measure the null hypothesis, statistical power analyses were conducted to determine the required sample size.

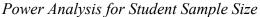
The researcher considered that increased confidence can be placed on generalizability when utilizing larger samples (Schutt, 2012). This led the researcher to expand the treatment and control groups by selecting a student sample at another school as opposed to within the treatment location. Additionally, when selecting the comparison school the researcher considered homogenous populations as a result of smaller sample sizes being more acceptable (Schutt, 2012).

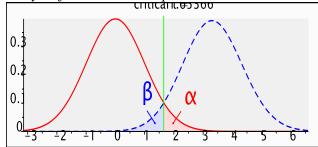
To determine the appropriate sample sizes, a power analysis was conducted using the statistical test of the difference between two independent means or groups. The program utilized to calculate power and effect was G* Power 3 (Faul, Erdfelder, Lang, & Buchner, 2007). Cohen (1988) recommends that the .80 value be used when determining statistical power.

Student Sample Size

The student sample size had sufficient power to detect a medium to large effect size. Using an alpha of .05 a two-tailed t test and statistical power of .80, I calculated to define the minimal detectable effect size (MDES). The literature on the MRP as an outcome suggested that an MDES of .7 is reasonable. Using a pretest as a covariate, my study had the power to detect an effect size of .50 with a sample size of 176 students (Table 12). The actual power achieved was 0.951 or a 95.1% chance of detecting an effect if one occurs in the study. Therefore, the sample size (n=176) had adequate power to detect a medium to large effect size.

Table 12



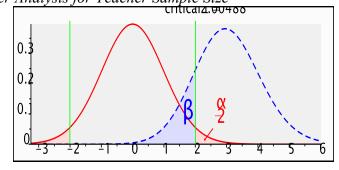


Teacher Sample Size

Given that teacher participants (n=57) were significantly lower than student participants (n=176), it required modification of the desirable .95 level of power. Therefore, modifying the level of power to .80 with a sample population of 56, an effect size of .77 was detected (table 13). This was a larger detect size, but still falls under Cohen's (1998) recommended .80. Therefore, there is an 80% chance that an effect is detected if one occurs within the study.

Table 13

Power Analysis for Teacher Sample Size



Variables

Key variables were examined through this research design (Appendix G). This study aimed to better understand low SES student contexts and how they impacted student motivation and teacher perceptions of student motivation. Along the CRT framework, a key strategy was the accumulation of cultural capital or having knowledge about student cultures. This was provided through the delivery of learner profiles. A key variable was if teacher perceptions of their relationships with students are positively impacted as a result of this independent variable. The five research questions that surfaced as a result of the literature were investigated as key variables. Further, these variables impact on short term, medium term, and long term outcomes were considered (Appendix H). Table 14 identified the key variables and indicators for this research design.

Table 14

Key Variables	Indicators
The motivation of third grade students in reading, specifically students of low SES.	Third grade students self-reported motivation in reading as assessed by the completion of the MRP-R.
The impact of teacher perceptions of student motivation on their academic achievement	Teacher's self-reported perceptions of student motivation, particularly among low SES and high SES groups as assessed by the completion of the PSM.
Teach ability to implement cultural responsive teaching strategies and over level of cultural competency. The perceptions teachers have about their relationships with students, specifically according to low and high SES.	Teacher engagement in professional development sessions and its impact as measured by student surveys. Teacher's self-reported perceptions of relationships with students as assessed by the STRS.

Assumptions Guiding Research

The implications of the socioeconomic achievement gap in third grade reading and the literature that attempted to comprehend the causes present key assumptions. These key assumptions assisted in guiding the research for this study. The belief that educators instruct students equally along socioeconomic lines can be reasonably assumed. However, the literature presented the assumption that one of the results of poverty is lack of motivation or the further assumption that living in poverty is a result of people not pursuing goals or simply accepting helplessness. This assumption resulted in society developing perceptions that certain people and inherently children have low motivation. Gorski (2008) rejected this assumption that he identifies as the false culture of poverty. However, the adoption of this assumption has influenced student receiving direct and controlled teaching that encouraged memorization. This assumption could be further explored as a result of teachers who had high perceptions of student motivation leading to students reporting higher levels of motivation. Additional assumptions were documented in the logic model (Appendix I).

Instrumentation

Motivation to Read Profile-Revised (MRP-R)

The researcher hypothesized that the intervention of the combination of acquisition of a student's cultural background and interests through the development of learner profiles with professional development on CRT strategies would result in increased motivation among third grade students. To collect quantitative data to measure a student's reading motivation; the Motivation to Read Profile-Revised (MRP-R) (Appendix J) was utilized (Gambrell, Palmer, Codling, & Mazzoni, 1996). The MRP-R was developed to address what previous instruments were not addressing, the two fundamental components of motivation as suggested by

motivational theory: self-concept and task value (Gambrell et al., 1996). In its traditional form, the Motivation to Read Profile (MRP) consisted of a reading survey and a conversational interview; however, for this evaluation the survey was utilized alone. The survey was composed of 20 questions and utilizes a 4-point Likert-type response scale; 10 items measure a student's self-concept as a reader and 10 items measure the student's perceived value of reading. When scoring the survey, the more positive response is assigned the highest number while the least positive response is assigned the lowest number. A percentage score on the survey can be computed for each student, as well as scores on the two subscales (Self-Concept as a Reader and Value of Reading) (Gambrell et al., 1996). However, for the purpose of this study, raw scores were used instead of percentile scores.

The items on the survey were selected as a result of analyzing literature on student motivation in reading, thus proving to be reliable measures. "These items were selected based on a review of research and theories related to motivation and included an analysis of existing instruments designed to assess motivation and attitude toward reading" (Gambrell et al., 1996, p. 220). An example of an item includes: "I think becoming a good reader is not very important, sort of important, important, or very important."

Historically, the MRP has proven to be a valid measure. It was field tested in the fall of 1995 by 330 third and fifth grade students in 27 classrooms in four schools from two school districts (Gambrell et al., 1996). "To assess the internal consistency of the Reading Survey, Cronbach's (1951) alpha statistic was calculated, revealing a moderately high reliability for both third grade (.70) and fifth grade (.76)" (Gambrell et al., 1996, p. 525). It is critical to note that the MRP was revised (MRP-R) in 2003 to accommodate for the cultural and linguistic changes that occurred during the decade over its creation (Malloy, Marinak, Gambrell, & Mazzoni,

2013). The revisions were as follows: "12 items were either revised in the stem portion with an eye to cultural and linguistic changes to provide clarity or in the responses to improve reliability of the scale" (Malloy et al., 2013, p. 274). The MRP-R survey was field tested by over 280 students in third, fourth, and fifth grade. "When compared with the original version, the internal consistency of the alpha value scale increased from .82 to .85, and the internal consistency of the self-concept scale increased from .75 to .81" (Malloy et al., 2013, p. 275). Both the 1996 field test and 2013 field test reveal that reliability and validity estimates are well within the acceptable range for research purposes.

Administration of MRP-R

The pre-implementation intervention MRP-R survey was conducted the week of November 1. According to (Gambrell et al., 1996) the MRP-R takes between 15 – 20 minutes. A Google document was utilized to administer the survey. Selection of this program is based on third grade students' and teachers' familiarity with the program. All students received a read to accommodation and were requested to complete one item at a time. This read to accommodation supported accurate data collection. When students read independently and respond to survey items, results for less proficient readers may not be reliable due to their possible frustration with reading (Gambrell et al., 1996). The post MRP-R was the week of February 6 and overall percentage scores as well as scores on the two subscales (Self-Concept as a Reader and Value of Reading) were compared. In order to assess whether a difference existed between the data collected in November and February a regression analysis was utilized. Additionally, a two-way ANOVA was used to assess if there was a difference between teacher perceptions of relationships with high and low SES students.

The MRP-R has been frequently utilized in literature related to reading motivation in elementary school; however, it currently does not have norms (Kelley & Decker, 2009).

Therefore, Kelly & Decker (2009) believed that it would be helpful to have standard scores to categorize and compare results. These norms would allow for determinations to be made regarding self-concept as a reader and value of reading. Determinations related to if individuals are above or below average helped to construct intervention and evaluate the program being implemented.

Perceptions of Student Motivation Questionnaire (PSM)

In order to examine if professional development on cultural competency impacts teacher perception of student motivation, the Perceptions of Student Motivation (PSM) questionnaire (Appendix K) was utilized. The PSM is a quantitative instrument for assessing teacher perceptions of students' motivation and the reasons that may explain their lack of motivation (Hadre, Davis, & Sullivan, 2008). This survey was administered to all staff members in both the treatment and control settings. The PSM is composed of 20 questions. The first component of the survey is the general motivation subscale, which measures teachers' overall perceptions of students' motivation. Part two is the reasons subscale, which measure the strength of teachers' understanding of reasons that students are unmotivated (Hadre, Davis, & Sullivan, 2008). The purpose of the administration to all staff members was because all received the professional development. Delivering to all teachers helped to strengthen the sample size rather than just measuring the perceptions of third grade teachers.

Response Option Reversal

Analysis of the PSM demonstrated that negatively phrased statements resulted in low Likert scale scores which would have impacted the reliability and validity of the assessment.

Mixtures of positive and negative statements on Likert surveys are to protect against unreliable response data as a result of carelessness or disengagement in providing accurate responses (Barnette, 2000). This practice therefore improves internal consistency reliability, but did not offer a scoring system that is conducive to the research methods. Therefore, the researcher utilized the response option reversal by offering the scores in reverse order to correlate with a higher score demonstrating more positive perceptions for student motivation.

Student-Teacher Relationship Scale

The Student-Teacher Relationship Scale (STRS) (Appendix L) measured student-teacher relationship patterns focused on conflict, closeness, and dependency (Pianta, 2001). These three measures provided data on the overall quality of the student-teacher relationship. According to Pianta (2001), at the time of its development, it was the only self-report survey utilized to measure a teachers' perception of relationships with individual students, specifically in preschool through grade 3. The STRS is a 28-question survey that utilized a 5 point Likert rating scale to capture information on the three components of student-teacher relationships, conflict, closeness, and dependency (Pianta, 2001). Items were rated on a scale ranging from 1 'definitely does not apply' to 5 'definitely applies'. It is important to note that within these 28 items, 12 were used to collect data on conflict, 11 for closeness, and 5 for dependency. Pianta (2001) defined these components as follows: "Conflict measures the degree to which a teacher perceives his or her relationship with a particular student as negative and conflictual, closeness measures the degree to which a teacher experiences affection, warmth, and open communication with a particular student, and dependency measures the degree in which a teacher perceives a particular student as overly dependent on him or her" (Pianta, 2001, p. 2). Pianta (2001) created a data collection tool to support accurate measurement and presentation of the data (Appendix M).

The STRS proved to be a reliable instrument to determine teacher perceptions of relationships with their students. During a four-week implementation, test and re-test relationships were as follows (all significant at p < .05): closeness, .88, conflict, .92, dependency, .76 and total .89 (Pianta, 2001). However lower internal consistency reliability occurred in the normative sample for the dependency component. With dependency, only being based on 5 survey items, it is recommended by (Pianta, 2001) to not use it alone for program evaluation.

Administration of STRS

The STRS was conducted during the month of November and February. Five minutes was required to complete the STRS per student (Pianta, 2001). Each third-grade teacher had 24 students in their class. To support time and validity, scales were completed over a two-week period of time to ensure an adequate sample size. Scales were collected by the researcher to eliminate threat to validity of teacher bias by reviewing results prior to the February administration.

Hypothesis Questions

The literature review and needs assessment demonstrated that lack of teacher understanding of low SES students was a significant problem that influenced motivation and therefore academic achievement. Much of the research presented that students of low SES have lower motivation that are a result of the stressors that are created from living in poverty. Additionally, teaching practices often contributed to lower reported motivation as a result of lack of progressive instructional practices, such as cooperative learning strategies. Therefore, research questions were developed to determine the motivational impacts on students when relevant cooperative learning methods that reflect their cultures and interests are implemented in the classroom. Measurement of the dependent variables; reading motivation of third grade

students, teacher perceptions of student motivation, and third grade teacher perceptions of relationships with students were done through the collection of quantitative data through surveys (table 15).

Research Questions and Hypothesis

RQ1: Does the motivation of students increase in reading after their teachers incorporated texts that represented their interests in cooperative learning literature circles?

- HO: Student motivation to read does not increase as a result of engaging in cooperative learning
- H1: Student motivation to read increases as a result of engaging in cooperative learning

RQ2: Does the motivation of low SES students whose teachers construct cooperative learning opportunities utilizing learner profiles increase more than their high SES peers?

- HO: Low SES student motivation in reading does not increase more than their High SES peers as a result of participating in cooperative learning groups.
- H1: Low SES student motivation increases more than High SES peers as a result of participating in cooperative learning groups.

RQ3: Do teachers who participated in the professional development on culturally competency have increased perceptions of student motivation?

- HO: Teacher perceptions of student motivation do not increase as a result of professional development on cultural competency.
- H1: Teacher perception of student motivation increases as a result of professional development on cultural competency.

RQ4: Is there a correlation between teacher perceptions of relationships with students and student motivation?

 HO: There is no correlation between teacher perceptions of relationships and student motivation. • H1: Student motivation increases as teacher perceptions of positive relationships increase.

Table 15

Primary Research Questions and Measurement

Primary Research Questions	Measurement/Explanations
Does the motivation of students increase after teacher teachers incorporated texts that represented their interests in cooperative learning literature circles?	Quantitative survey name MRP-R was administered to the treatment and control group in November 2016 and February 2017. Analysis of variance in total motivation, self-concept, and value will be analyzed
Does the motivation of low SES students whose teachers construct cooperative learning opportunities utilizing learner profiles increases more than their high SES peers?	MRP-R will be utilized to analyze the differences in motivation between low SES students in the treatment group and high SES students in the control group?
Do teachers who participated in the professional development on culturally competency have increased perceptions of student motivation?	Quantitative survey called PSM will be administered to both treatment and control to determine impact of professional development on teacher perceptions of student motivation
Is there a correlation between teacher perceptions of relationships with students and student motivation?	Quantitative survey STRS will be utilized to analyze impact of intervention on teacher perceptions of relationships with their students and student motivation.

Sequence of Professional Development

In examining the logic model for this intervention (Appendix N), fidelity of implementation required adherence to the design. This meant that teacher and student participants received treatment at the same time. To ensure that adherence was practiced, the

researcher was involved in each step of the intervention including conducting each of the four PD sessions, which maximized adherence to design (Dusenbury et al., 2003).

The first of the four PD sessions was provided at the beginning of September in 2016. The four professional development sessions were delivered to the entire teaching staff. In addition, there were meetings that were held with just the third-grade teachers since they were implementing the specific intervention. The introductory meeting took place in August of 2016 where the problem of practice was introduced and discussed. The researcher presented research to help define the problem of practice and presented student achievement data so the teachers understood that the income achievement gap was as significant as demonstrated at the county and state levels. This data resulted in creating a sense of interest and urgency regarding the problem. The meeting concluded with the researcher and teachers worked collaboratively to develop a draft timeline for the intervention.

The first PD session focused on introducing Hammond's (2015) cultural competency framework. This framework holds four components which helped support the development of the professional development learning progressions (Appendix O). The four components are awareness, learning partnerships, information processing, and community building (Hammond, 2015). We focused on the awareness component of the framework and presented research on unearned privilege and unearned disadvantage and how it manifests itself in education (Hammond, 2015). Further, professional development was delivered to increase cultural capital.

This was followed by developing cultural conversation groups. These groups were developed by the researcher to reflect diversity in race, culture, gender, years of experience, and grade level. Groups were established for the duration of the professional development sessions. These cultural conversation groups then engaged in a reading and discussion focused on

acquiring an understanding of the cultures in their classrooms. A major theme of this was that implicit bias is connected to neuroscience in that our brains processes significant amount of cultural information and to meet high demands it takes short cuts or develops stereotypes (Hammond, 2015). Groups engaged in very meaningful dialogues and shared in their evaluation that the time allotted to talk resulted in a commitment to the idea of becoming more culturally competent teachers.

The meeting concluded by teams engaged in rating where our staff was on the cultural continuum established by Gay (2000) (Appendix P). The staff consistently rated us at stage 4, cultural pre-competence. Cultural pre-competence was characterized by the desire to deliver quality services and a commitment to diversity indicated by hiring minority staff, initiating training, and recruiting minority members for agency leadership, but lacking information on how to maximize these capacities (Gay, 2000; Ladson-Billings, 1995).

In late September, a meeting was then held with the third-grade teachers and an MCPS technology specialist who helped the researcher create the learner profile program. The session occurred during the school day for 45 minutes. The measured outcomes for this meeting were as follows; understand the features of the learner profile program, provide feedback on ways to make the profile program more accessible and user friendly, and develop and plan or strategy for how it can be utilized during instructional planning to enhance student learning. In October students and parents engaged in meetings and focus groups to complete the cultural background survey and provide information about their interests. As a result of using google forms, the survey results and information documented by professionals that facilitated the focus groups dropped directly into the learner profile program. Therefore, information was available immediately. In mid-October, the researcher held another meeting with the third-grade teachers

to engage in trend analysis regarding student cultures and interests to begin examining texts that students could choose from to participate in the cooperative learning activity, literature circles. It was established that teachers would take the time to analyze profiles and research books that they would then bring to another meeting to select texts.

At the following meeting, the teachers and researcher presented different texts and the reasoning for selecting them. The following texts were selected;

- Tales of the Fourth Grade Nothing by Judy Blume
- Out of My Mind by Sharon Draper
- The Million Dollar Shot by Dan Gutman
- *Charlie and the Chocolate Factory* by Roald Dahl
- *Tornado* by Betsy Byars

Selections of these texts were as a result of large numbers of students expressing interests in animals and sports, specifically basketball. The book *The Million Dollar Shot* was a selection that focused on the power of motivation in overcoming adversity. In relation to student's cultural backgrounds, a high number of students shared their experiences of caring for family members who had physical or mental challenges. As a result, the text *Out of My Mind* was selected. This book is about an eleven-year-old girl who was born with Cerebral Palsy. The book addressed the deficit narratives that our constructed about students with special needs and how people like this girl overcome them and demonstrate their unique talents and intelligences.

The second PD session delivered was developed after the researcher provided the third-grade team with professional development on the CRT strategy, cooperative learning. During this meeting with the third-grade team, they shared how the information on the learner profile had provided relationship building opportunities and modifications to the curriculum. The

second staff PD session occurred in late November and focused on community building, another component of Hammond's (2015) cultural competency framework. Hammond (2015) described this component as focusing on developing a learning environment that promotes social and intellectual safety so students can stretch themselves and take risks. A specific practice that Hammond (2015) highlights is developing culturally diverse learning groups where they are exposed to diverse cultural practices and orientations. With the support of the third-grade team members and assistant principal, PD session two focused on the framework and components of the CRT strategies, cooperative learning. The session provided research on the strategies, process for implementing the strategies, and academic and social benefits to students. Research was presented on heterogeneous grouping and the research based benefits it provides to all learners. Specifically, teachers focused on how the use of heterogeneous cooperative learning groups can support students' ability to reach ZPD (Vygotsky, 1978).

Following this PD session, all third-grade students began participating in self-selected literature circles. With 25 students in each class, students were in groups of the recommended five, no larger than six students (Gay, 2000; Montgomery, 2001; Slavin, 1988). Teachers provided a book introduction while highlighting cultural components that were represented on profiles as well as topics of interest. Students then wrote down their first and second choices of books. Teachers communicated that they would do the best to accommodate one of these two choices. When determining academic grouping, teachers took into account students specific needs, matching peers to support these students, and individual leadership qualities.

In late November, the third-grade team engaged in professional development activity with the researcher. The focus of this professional development activity was the process and structure for literature circles and planning collaboratively for implementation. An essential

component of this professional development on literature circles was increasing teacher understanding of the roles and responsibilities of students and the process for choosing or assigning these roles.

This professional development activity was supported by examining Daniels (1994) research on literature circles. Specifically, Daniels (1994) provides a detailed explanation of the cooperative approach of a literature circle group. "While reading each group-determined portion of the text (either in or outside of class), each member prepares to take specific responsibilities in the upcoming discussion, and everyone comes to the group with notes needed to help perform that job. The circles have regular meetings, with discussion roles rotating each session. When they finish a book, the circle members plan a way to share highlights of their reading with the wider community; then they trade members with other finishing groups, select more reading, and move into a new cycle" (p.13). Daniels (2002) specifically identifies the following roles in literature circles;

- Facilitator or member who leads the group, keeps them on tasks, and holds others accountable for their responsibilities
- Connector or member who finds connections between the book and the world outside,
- Word wizard or member who looks for special words in the story that they would like to discuss.
- Question asker or member who identifies good questions for the group to engage in discussions about,
- Passage picker or member who selects a passage they would like to read about for specific reason (scary part, funny part, confusing part, etc.)

It was agreed by all participants that these jobs would rotate each session, unless the teacher felt some students were not prepared for specific roles. During this meeting the third-grade teachers decided that students would engage in literature circles on Tuesday's and Friday's in order to provide students time to read independently and prepare for their assigned role. It was also decided that cooperative groups would be given the autonomy to decide how much reading to do between meetings (Pearson, 2010). During literature circles, teachers would monitor group discussions and clarify tasks, provide language assistance, and assess student's comprehension of the text (Peralta-Nash & Dutch, 2000).

In December, the third-grade teachers and the researcher came together to discuss ways they have experimented with cooperative learning, reflections on literature circles, and to continue to discuss how cultural/interest profiles have supported relationship building with students. The measureable outcome for this session was that participants be provided with PD on implementation of assessing student performance in literature circles and providing feedback to students.

The third formal PD session for all staff members occurred in December. We began this PD session by meeting in cultural conversation groups to examine four specific questions relative to cultural competency (Appendix Q). The four questions were as follows; what specific cultural progress have you seen teams you are active on or the school as whole make? What barriers do you believe there are to our progress in becoming a more/stronger cultural competent environment?, What do you feel are our school's beliefs around cultural diversity?, and In what ways are we fostering an environment for cultural diversity to grow? These questions promoted courageous conversations around specific deficits in our environment. Some common trends in relation to barriers were leveled grouping limiting exposure to high levels for lower academic

ability groups, language deficit thinking, awareness of personal bias, and difficulty in modifying curriculum to support multiculturalism.

These conversations were followed by focusing on learning partnerships, another practice area of Hammond's (2015) CRT framework. Learning partnerships are defined by the development of a social emotional partnership to engage students in deeper learning (Hammond, 2015). During this PD session, we engaged in discussions on strategies to enhance relationship development, specifically highlighting the importance of connection.

Relative to the more targeted professional development occurring with the third-grade teachers, we focused on the strategy of utilizing similar interests to build connections.

Hammond's (2015) research explained that people develop connections with people who are interested in similar topics, hobbies, or social causes. "This common affinity allows a point of connection beyond any obvious racial, class, or linguistic difference" (Hammond, 2015, p. 79). The third-grade team presented some of their academic grouping practices that were influenced by the information accessible on the learner profile.

In January, the researcher and the third-grade team came together to reflect on what they have learned about CRT strategies. More specifically, they discussed their implementation process for cooperative learning and how it changed their teaching and the benefits to their students. The measurable outcome for this PD session was that participants would be able to identify at least one way in which cooperative learning and acquisition of cultural and student interest knowledge has improved the quality of instruction in their classrooms and at least one impact they have observed in their students.

In February of 2017, the fourth and final PD session was held with the staff. During this meeting, we focused on the last practice area of Hammond's (2015) CRT framework,

information processing. Information processing is described as understanding the connection of culture and how the brain processes information, as well as specific brain based processing strategies (Hammond, 2015). Relative to the problem of practice, professional development was delivered on how poverty impacted information processing.

Design Strengths and Limitations

Children's level of motivation is instrumental in determining the extent to which they will engage in literacy activities and exerts a powerful influence on their academic achievement (Kennedy, 2010). A plausible causal relationship between two variables exists if cause is related to effect and no other alternative for the change is found (Shadish et al. 2002). This causal relationship did require assumption as a result of mediating variables frequently found in comparison studies (Shadish et al. 2002).

As a result of the study's sample size, the researcher drew statistical conclusions and had the ability to reject a null hypothesis. Furthermore, the dosage (Dusenbury et al., 2003) and duration of the PD were designed to strengthen teacher learning with cultural competency and cooperative learning. After the introductory meeting during pre-service, teachers participated in four PD sessions over the course of the semester. With third grade teachers having the opportunity to engage in extended collaborative planning which embedded professional development, the student investigator anticipated that a PLC would develop providing stakeholders with the opportunity to collaborate, share resources relative to cooperative learning, analyze data, and make curricular modifications based on the cultural capital of their students.

"Validity for change means that the measure shows an observable difference when there is, in fact, a change on the characteristic measured that is of sufficient magnitude to be interesting in the context of application" (Lipsey, 1998, p.54). The researcher's hypothesis that

the intervention would result in measurable change because of the distribution of sensitive student information combined with the treatment of professional development on cultural competency and cooperative learning. The literature review demonstrated relationships between increased student motivation in reading and increased motivation in reading comprehension performance. Regardless of supporting literature, impacts of learner profiles and professional development to establish culturally responsive environments have mediating variables promoting intended outcomes.

An example of a significant mediating variable is maturation. During the implementation period of the intervention, a natural increase of student motivation occurred as a result of relationship development during the first nine weeks of school. Close examination of the comparison group's increase in motivation was critical to address limitations. Further, in order to mitigate potential limitations, adherence would require strengthening. Adherence will be strengthened by establishing explicit professional development on teacher ability to access information on learner profiles and identified relevant CRT to support implementation. Macro and micro professional development helped address this potential limitation to the intervention. Finally, attrition needed to be considered as a threat to reliability of the research design. Both the treatment and control groups had high mobility rates. This means that identified schools are located in transient areas. However, according to (Wholey et al., 2010) quality assurance can be determined if there is equivalent attrition between groups. In this study, they were quite similar. However, it is critical for the researcher to take into account that if attrition rates differ, bias could be introduced (Wholey et al., 2010).

The research design limited or negated the influence of other experimental, mediating, or confounding variables (Shadish et al. 2002). To negate these influences, a well-planned

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experimental design was developed that anticipated confounding variables. A consistent and thorough monitoring of this design during development, implementation, and analysis of results contributed to the elimination of confounding variables.

CHAPTER FOUR

ANALYSIS OF DATA

Introduction

The purpose of this research was to investigate the influence of professional development on teacher understanding of low SES student contexts and what influences students' motivation. As a result of treatment, student motivation to read, the differences in motivation between low and high SES students, the teacher perceptions of student motivation, and teacher perceptions of relationships with students were all measured. Measurement was conducted utilizing survey methods described in the methodology. This chapter will present the results of quantitative data to examine and address the research questions.

These surveys, the MRP-R, PSM, and STRS have all proven to be reliable and valid when utilized in previous empirical studies. The results of these surveys will be used test the hypotheses of the research questions; RQ1) Student motivation to read increases as a result of engagement in cooperative learning, RQ2) Low SES student motivation increases more than high SES peers as a result of participation in cooperative learning groups, RQ3) Teacher perception of student motivation increases as a result of professional development on cultural competency RQ4) Teacher perceptions of relationships with student increases and student motivation increases

This chapter will include multiple components, all which are intended to assess the impact of treatment on results. These components include background, data collection methods, statistical methodology, data analysis, and summary matrix.

Background

As demonstrated in chapter 2, the socioeconomic achievement gap between high and low SES third grade students in reading is well documented in literature (Reardon, 2011; Schultz, 1993; The Annie E. Casey Foundation, 2014; Hernandez, 2012). An examination of the literature demonstrates a need to more deeply understand the motivational differences between high and low SES students to identify programs or strategies that can increase motivation. Given that CRT is a strategic yet broad approach to meeting the needs of the diverse cultures in classrooms, the researcher selected one strategy to be implemented with fidelity in third grade, cooperative learning. Given that teachers are active socialization agents capable of stimulating the general development of student motivation to learn (Brophy, 1987) data collection methods were aimed at a more specific development of student motivation to learn.

Data Collection Methods

All pretreatment surveys were conducted during the first two weeks of November of 2016 and the first two weeks of February of 2017. The researcher modified times of administration as a result of the documented high motivation at the beginning of the school year among both students and teachers ((Hadre, Davis, & Sullivan, 2008). Additionally, relationship development during the first month of school commonly demonstrates positive perceptions as a result of time (Pianta, 2012). Maturation bias was considered as a limitation and therefore presurvey administration was modified from September to November.

Response Rate

At the treatment site, one hundred and twelve MRP-R surveys were administered to third grade students. Administration was conducted in the classroom and facilitated by someone unaffiliated with the study. Analysis of the surveys demonstrated that five were not fully

completed or were not electronically submitted. Therefore, one hundred and seven were fully completed and submitted resulting in a return rate of 95.5%. It is critical to note that four students moved from the treatment site during intervention lower the number of participants to one hundred and three.

At the comparison school, out of the 84 surveys administered, 76 were fully completed and submitted. This resulted in a response rate of 90.4%. During the implementation of the program at the treatment site, three students moved from the comparison school which resulted in 73 participants.

The administration of the PSM survey was delivered through email to ensure those teachers that instructed students in reading received it. The survey was also constructed so that each respondent could only complete the survey once. At the treatment site, the survey was delivered to 38 teachers and 32 responded. This resulted in a response rate of 84.2%. At the comparison school, the survey was delivered to 28 teacher participants. With 25 responding, it resulted in a response rate of 89.2%.

Data Analysis Findings

Given the complexity of examining multiple surveys that contained different components of motivation, data was analyzed using multiple Analysis of Variance (ANOVA). Descriptive statistics that included mean, standard deviation, and sample size were also examined. While a simple t-test could have been utilized, the ANOVA provided a more sound methodological approach to measure the influence of independent variables and a reduction in type I error or the incorrect rejection of a true null hypothesis. The type of ANOVA differed dependent upon the research question and therefore the statistical method will be described for each. A mixed between and within ANOVA to determine if there were significant differences between the

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treatment groups on individual measures as well as within the pre and post scores were conducted.

Research Question One

The first research question was to determine if student motivation including the different sub scales (Total, Value of Reading, and Self-Concept) increased as a result of teachers incorporating texts that are representative of their interests in cooperating learning literature circles. In measuring total survey scores, raw scores were utilized instead of percentiles to ensure the significance of any impact was not inaccurate. Prior to conducting statistical tests, assumptions were accounted for utilizing Leven's test of equality of variances (Table 16). This test demonstrated that assumptions were not violated for the pre (p=.300) or the post (p=.441) measures. To support this Box's test of equality of covariance was conducted and was found not to be significant (p=.244).

Table 16

Levene's Test of Equality of Variances Pre and Post Total Survey

Measures	F	dfl	df2	Sig	
PreTotalSurvey	1.079	1	174	.300	
PostTotalSurvey	.597	1	174	.441	

Measurement of total motivation as reported on MRP-R was conducted through a two-way repeated analysis of variance. Examination of the mean scores demonstrates that there is a difference between groups (Table 17). Further analysis of interaction effect, demonstrates there was a significant interaction effect between scores on total measures and the treatment group, $F(1, 174) = 4.683, p < .05; \Lambda = .974; \eta^2_{partial} = .03$. The interaction was small as noted by partial ETA squared demonstrating that 3% of scores is attributed to this interaction. However, examination of the main effect (pre vs. post) demonstrates there were no significant differences

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between pre and post total scores on the measures, F(1, 174) = .005, p = .941; $\Lambda = 1.000$; $\eta^2_{partial} = .000$. This suggests that there are minimal to no treatment effects. There were significant differences between the groups, F(1, 174) = 17.395, p < .001; $\eta^2_{partial} = .09$. Analysis of mean scores can further explain this difference between treatment and control groups.

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Table 17

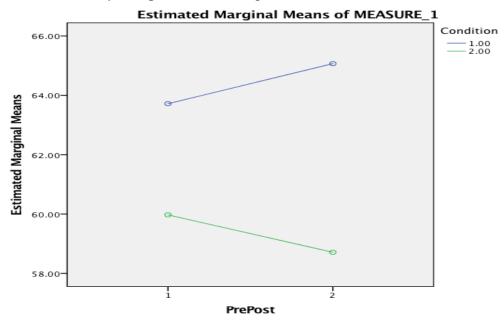
Mean Scores on MRP-R (Total) by Treatment and Control Group

	Tr	eatment	Co	ntrol	
Measures	M	SD	M	SD	
PreTotalSurvey	63.71	7.92	59.97	9.41	
PostTotalSurvey	65.06	9.07	58.71	9.13	

Table 17 demonstrates that treatment groups mean scores increased from pre (M=63.71, SD=7.92) to post (M=65.068, SD=9.08), while the scores for the control group decreased from pre (M=59.973, SD=9.41) to post (M=58.712, SD=9.14). This suggests that group membership differs but according to analysis of total MRP-R survey scores treatment did not have the intended effect. Table 18 illustrates the estimated marginal means of measure for pre and post total survey demonstrates that students in the treatment group demonstrated a significant higher level of motivation to read than the control group, however mean scores only increased by 1.35.

Table 18

Pre and Post Total Survey Marginal Means Graph



Measurement of treatment group and self-concept demonstrated similar results. Again, Levene's test of equality of variances was not violated for either the pre (p=.802) or the post (p=.824) (Table 19). Box's test of equality of covariance matrices further supports no violation of assumptions as it was not significant (p=.909).

Levene's Test of Equality of Variances Pre and Post Survey SC

Table 19

Measures	F	dfl	df2	Sig	
PreSurvey SC	.063	1	174	.802	
PostSurvey SC	.050	1	174	.824	

Mean scores on the self-concept component of the MRP-R demonstrated significant differences from pre and post scores as show in Table 20. Examination of the ANOVA demonstrated a significant interaction effect between scores on self-concept and treatment groups, F(1, 174) = 6.180, p < .05; $\Lambda = .966$; $\eta^2_{partial} = (.03)$. Again, it is critical to note that

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small effect size, 3% variance in scores can be attributed to the interaction. It is critical to be cautious when interpreting main effects when interaction effects are significant. As a result, analysis of the main effect (Pre vs. Post) indicated there were no significant differences between pre and post according to the measures, F (1, 174) = .128, p = .721; $\Lambda = .999$; $\eta^2_{partial} = (.000)$. Again, there were significant differences between the treatment and control groups, F (1, 174) = .12893, p < .001; $\eta^2_{partial} = (.07)$. This suggests that changes in motivation are being driven by group membership but cannot be sufficiently attributed to treatment.

Table 20

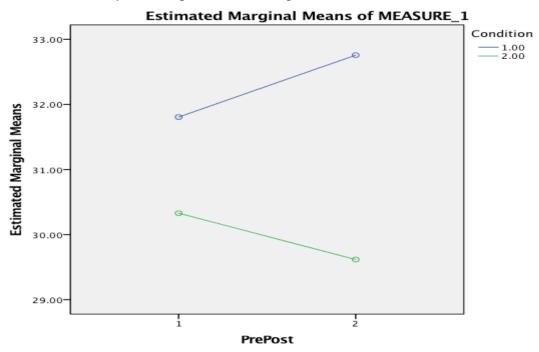
Mean Scores on MRP-R (Self-Concept) by Treatment and Control Group

	Tre	eatment	Со	ntrol
Measures	M	SD	M	SD
PreSurvey SC	31.80	4.57	30.32	4.81
PostSurvey SC	32.75	4.76	29.61	4.84

Mean scores demonstrate about a point (.95) growth for the treatment group as measured by the pre and post survey (M=31.80) to (M=32.757). The scores for the control group decreased from pre (M=30.329, SD=4.82) to post (M=29.616, SD=4.84). The line graph for marginal means demonstrates growth in motivation trending in a positive direction for the treatment group while trending in a negative direction for the control group (table 21). It is critical to note that change in motivation is relatively similar in regards to numerical differences while trending in opposite directions.

Table 21

Pre and Post Survey SC Marginal Means Graph



The analysis of the results of the value of reading portion of the MRP-R resulted in no violation of assumptions. Levene's test of equality of variances was not violated for the pre (p=1.0) and post (p=.923) as demonstrated in Table 22. This was again supported by Box's test of equality of covariance matrices being not significant (p=.014).

Levene's Test of Equality of Variances Pre and Post Survey Value

Table 22

Measures	F	dfl	df2	Sig	
PreSurvey Value	6.805	1	174	.010	
PostSurvey Value	.009	1	174	.923	

Differing from the other sub scales, there was no significant differences related to the interaction effect between scores on value and the treatment groups, F(1, 174) = 2.180, p = .142; $\Lambda = .988$; $\eta^2_{partial} = .01$. Further, a closer examination of main effect (pre vs. post) indicated no significant differences on these measures F(1, 174) = .016, p = .898; $\Lambda = 1.000$; $\eta^2_{partial} = .000$.

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However, consistent with the other subscales there were significant differences between groups F(1, 174) = 13.309, p < .001; $\eta^2_{\text{partial}} = .07$. These differences were again noted when examining means scores (Table 23), while the treatment groups mean scores increased from pre (M = 31.903, SD = 4.62) to post (M = 32.398, SD = 5.47), the scores for the control group decreased from pre (M = 29.685, SD = 6.13) to post (M = 29.096, SD = 5.96).

Table 23

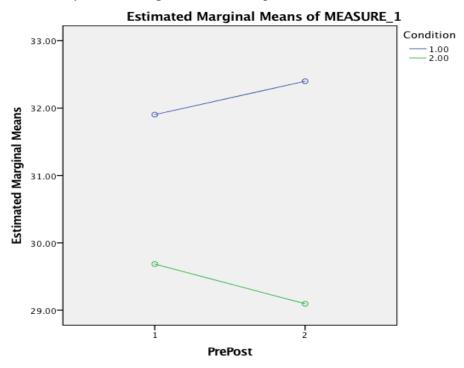
Mean Scores on MRP-R (Value) by Treatment and Control Group

	Treatment		Control	
Measures	M	SD	M	SD
PreSurveyValue	31.90	4.62	29.68	6.13
PostSurveyValue	32.39	5.47	29.09	5.96

Analysis of the line graph (Table 24) continues to demonstrate the trend with value of reading increasing for the treatment group and declining for the control group. Comparisons of the sub scales demonstrates that value of reading was the lowest mean score for the control group (M=29.09).

Table 24

Pre and Post Survey Value Marginal Means Graph



Research Question Two

The purpose of this research question is to determine treatment's impact on students of low SES. Specifically, does the motivation of low SES students whose teachers construct cooperative learning opportunities utilizing profiles increase more than their high SES peers? To assess this research, question a three way (SES, Pre & Post, Treatment Group) repeated measures analysis of variance to determine if SES had any interaction with or main effects on differences within treatment groups for pre and post measures of total, self-concept, and value.

SES, Treatment Group & Total Scores

For this statistical test, no assumptions were violated. According to Levene's test of equality of variances was not violated for either the pre (p = .757) or the post (p = .184) measures. Box's test of equality of covariance matrices was not significant, p = .540. An examination of the multiple variables indicated no interaction effect (pre/post, SES, treatment)

with total scores of F (1, 172) = .414, p = .521; Λ = .998; $\eta^2_{partial}$ = .002. These results can be interpreted that changes on one independent variable do not combine with changes on another independent variable to influence changes in scores on the dependent variable, total scores. The significance of .002 is likely the result of a singular influence of an individual dependent variable, not the combination of independent variables.

Further, the interaction effect (Pre/Post & SES) was not a significant interaction between pre/post scores and SES, F(1, 172) = .165, p = .685; $\Lambda = .999$; $\eta^2_{partial} = .001$. Therefore, the independent variable of SES group does not interact with independent variable of pre/post to influence differences on total measures. The main effect (pre/post) supported this with no significant differences between pre and post total scores, F(1, 172) = .029, p = .865; $\Lambda = 1.000$; $\eta^2_{partial} = .000$. Analysis of group interaction demonstrated a significant difference in total measures between the SES groups, F(1, 172) = 6.065, p < .05; $\eta^2_{partial} = .03$. This significance was noted when examining total means scores (table 25), those in the High SES group scoring higher (M = 63.648, SE = .914) than the Low SES group (M = 60.688, SE = .780

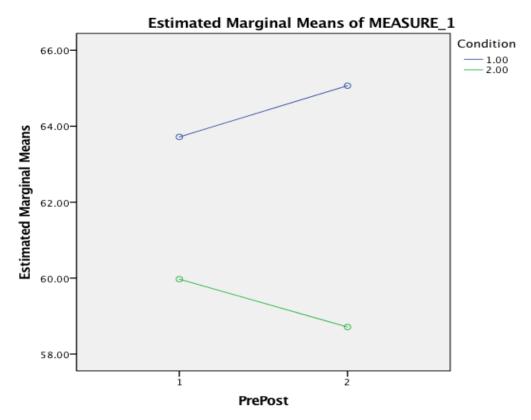
Mean Scores on Total MRP-R by Socio-Economic Status (SES) in Treatment and Control

Table 25

	High S	SES	High S	SES	Low S	SES	Low S	SES
	Treatn	nent	Contro	ol	Treatn	nent	Contro	ol
Measures	M	SD	M	SD	M	SD	M	SD
Total Pre	63.87	8.02	63.06	7.99	63.58	7.91	57.93	9.80
Total Post	65.06	9.07	62.58	7.14	65.07	8.68	56.15	9.47

Table 26

Pre and Post Total Survey Marginal Means Graph
Low SES Treatment (1.0) and Low SES Control (2.0)



Significant differences between groups on their measures of total survey scores are demonstrated in the marginal means line graph (table 26). Therefore, results are trending in a positive direction for low SES students in the treatment group but can't be statistically proven to be the result of treatment.

SES, Treatment Group & Self Concept

There was no violation of assumptions according to Levene's test of equality of variances for either the pre (p = .914) or the post (p = .721) measures. This was supported by Box's test of equality of covariance matrices being not significant (p=.997). The measures of these three variables resulted no significant interaction, F (1, 172) = .146, p = .703; Λ = .999; $\eta^2_{partial}$ = .001. However, analysis of the data illustrates a significant interaction between pre/post and the

independent variable treatment group, F(1, 172) = 5.536, p < .02; $\Lambda = .969$; $\eta^2_{partial} = .03$. This requires an analysis of main effect for pre and post which demonstrated no significant differences on measures of self-concept, F(1, 172) = .201, p = .655; $\Lambda = .999$; $\eta^2_{partial} = .000$.

There was a significant difference in scores on measures of self-concept between the SES groups, F(1, 172) = 15.229, p < .001; $\eta^2_{partial} = .08$. With those in the High SES group scoring higher (M = 32.553, SE = .478) than the Low SES group (M = 30.100, SE = .408). This means that there are significant differences between the groups on their scores for measures of self-concept, estimated marginal means. However, the lack of an interaction effect for the pre to post suggests that this difference is not a result of a treatment effect.

The main effect (condition) exhibited significant differences in scores on measures of self-concept between the condition groups, F(1, 172) = 10.784, p < .01; $\eta^2_{partial} = .06$. As illustrated in Table 27, those in the treatment group scoring higher (M = 32.359, SE = .401) than those in the control group (M = 30.295, SE = .484). Analysis of the means plot demonstrates the differences between groups (Table 28).

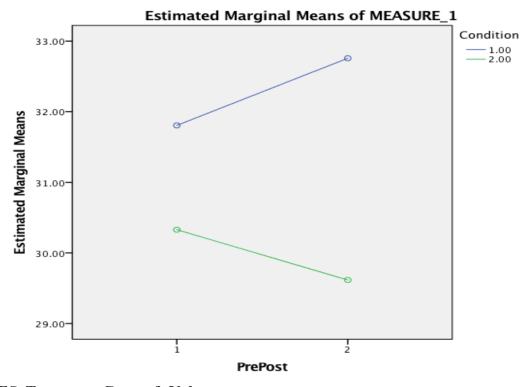
Mean Scores on Total MRP-R (SC) by Socio-Economic Status (SES) in Treatment and Control

Table 27

mean seere	5 OH TOTAL MILA	R (SC) by Socio Beomonie	Status (SES) in 11 car	mem and como
	High SES	High SES	Low SES	Low SES
	Treatment	Control	Treatment	Control
Measures	M SD	M SD	M SD	M SD
Pre SC	32.74 4.42	32.03 4.77	31.01 4.59	29.20 4.55
Post SC	33.74 4.54	31.68 4.26	31.92 4.82	28.25 4.75

Table 28

Pre and Post Self Concept Marginal Means Graph
Low SES Treatment (1.0) and Low SES Control (2.0)



SES, Treatment Group & Value

As consistently demonstrated, according to Levene's test of equality of variances no assumptions were violated for either the pre (p = .067) or the post (p = .059) measures. However, Box's test of equality of covariance matrices was significant, p = 043. Analysis of the data equates this violation to a result of counts in the cell and not a reflection of what is occurring in the data.

Analysis of the multiple variables (pre/post, SES, and treatment group) show no significant interaction between three variables, F(1, 172) = .313, p = .576; $\Lambda = .998$; $\eta^2_{partial} = .002$. Therefore, significant results are not due to the combination of independent variables but the singular influence of an individual dependent variable. Similarly, there was not significant interaction effect between pre/post scores on measures of value and the treatment group, F(1, 172) = .313.

172) = 1.799, p = .182; $\Lambda = .990$; $\eta^2_{partial} = .01$. The analysis of the main effect (SES) does not demonstrate a significant difference in scores on measures of value between the SES groups, F (1, 172) = .533, p = .466; $\eta^2_{partial} = .003$. Interpretation of this demonstrates that relative to value of reading, high and low SES groups did not differ from each other.

As consistent through the data analysis, there was significant difference in scores on measures of value between the condition groups, F(1, 172) = 10.305, p < .01; $\eta^2_{partial} = .06$. With those in the treatment group scoring higher (M = 32.085, SE = .482) than those in the control group (M = 29.659, SE = .582) (Table 29). The means plot (Table 30) further demonstrates the differences as a result of condition.

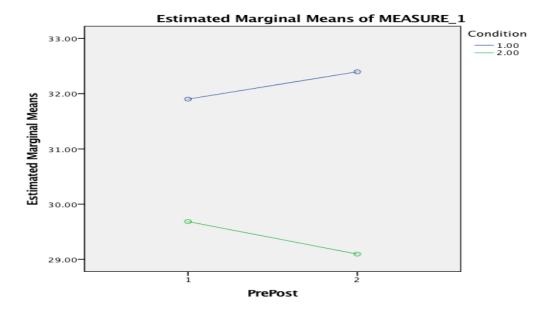
Table 29

Mean Scores on Total MRP-R (Value of Reading) by Socio-Economic Status (SES) in Treatment and Control

	High S	SES	-	High S	SES	Low S	ES	Low S	ES	
	Treatr	nent		Contro	ol	Treatn	nent	Contro	ol	
Measures	M	SD		M	SD	M	SD	M	SD	
Pre Value	31.10	4.81		31.03	5.49	32.57	4.38	28.79	6.42	
Post Value	31.55	6.15		30.89	4.90	33.10	4.78	27.90	6.33	

Table 30

Pre and Post Value of Reading Marginal Means Graph
Low SES Treatment (1.0) and Low SES Control (2.0)



Research Question Three

This research question is focused on the impact of professional development on teacher perceptions of student motivation. Specifically, the impact of professional development on cultural competency and the effective implementation of the grouping strategy, cooperative learning. To explore this research question, a mixed and between subjects of analysis of variance was conducted. The within factor was the pre to post with the between factor being treatment vs. control. Levene's test of equality of variances was not violated for either the pre (p = .341) or the post (p = .012) measures. There proved to be a significant interaction effect between the independent variables of treatment group and time, F(1, 55) = 11.300, p < .01; $\Lambda = .830$; $\eta^2_{\text{partial}} = .17$. This result was significant, with an interaction effect and 17% of the variance is account for by this interaction. The main effect (pre vs. post) resulted in no significant effect for differences in pre to post scores on PSM, F(1, 55) = 1.951, p = .168; $\Lambda = .966$; $\eta^2_{\text{partial}} = .034$.

Mean scores demonstrate minimal growth for the treatment group and minimal decline for the control group (Table 31). Analysis of the means plot demonstrates that treatment and control began the intervention with nearly the same PSM means (Table 32)

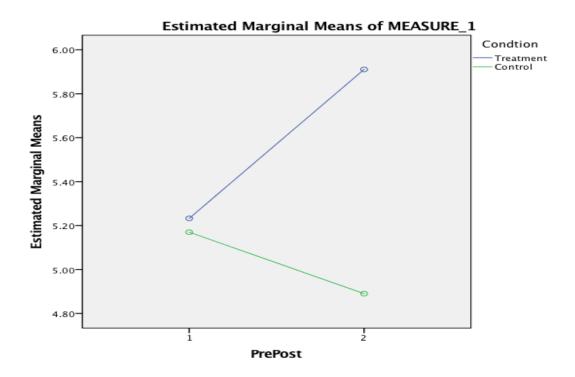
Table 31

Mean Scores on Perceptions of Student Motivation (PSM) by Treatment and Control

	T ₁	reatment	С	ontrol
Measures	M	SD	M	SD
PrePSM	5.23	.68009	5.17	.954
PostPSM	5.91	.555	4.89	.996

Table 32

Pre and Post Perceptions of Student Motivation Marginal Means Graph



Further analysis of mean scores for each individual question (table 33) on the PSM for treatment pre and post were analyzed to further answer this research question.

Table 33

Mean Scores by Individual Questions on Perceptions of Student Motivation (PSM) by Treatment and Control

	Treatment Pre	Treatment Post	Control Pre	Control Post
Question	110	1 050	110	1 050
The students in this class really try to learn.	5.82	6.11	5.39	5.59
My students work at learning new things in this class.	5.79	5.94	5.34	5.72
My students generally pay attention and focus on what I am teaching.	5.31	5.88	5.0	5.40
The students in this class generally do class related tasks and assignments willingly.	5.65	6.17	5.43	5.40
The students in this class don't put forth much effort to learn the content	5.75 t.	5.85	5.08	5.50
My students are often distracted or Off task, and I have to bring them back to focus on the topic or work a hand.	4.62 t	4.75	3.95	4.68
In general, my students are Genuinely interested in what they ar asked to learn in this class.	5.68 re	5.76	5.43	5.68

Table 33 (cont.)

Mean Scores by Individual Questions on Perceptions of Student Motivation (PSM) by Treatment and Control

by Treatment and Control	Treatment Pre	Treatment Post	Control Pre	Control Post
Question				
Generally, my students are Unmotivated because their parents don't care about or value education.	6.44	6.59	5.56	5.86
When students aren't engaged in school, it's because they don't see the value of what they are being asked to		4.17	4.21	4.45
If students aren't motivated to learn in my class, it is often because they don't have any aspirations connect t education, like plans to go to college	0	6.02	5.34	5.04
Students often lack effort at school because they don't have support at h		4.35	4.69	4.45
If students don't see the point of learning the Content then they aren' motivated to learn it.	4.79 t	4.85	5.00	4.86
Some of my student just have too many home problems to make school a priority.	5.55 ol	4.64	4.73	4.86
Most often, if students aren't Engaged in my class, it's because they don't see the relevance of the content in their world.	4.1	4.05	4.17	4.80
Some of my students aren't motivated to work in school because education has no place in the futures see for themselves.		5.97	5.69	5.54
Generally, the students in my class who are not interested in learning arthat way because of peer pressure to devalue school.		6.17	5.69	4.04

Mean Scores by Individual Questions on Perceptions of Student Motivation (PSM) by Treatment and Control

Question	Treatment Pre	Treatment Post	Control Pre	Control Post
Most often, if students aren't working in my class, it's because they don't how useful this information can be.	_	4.14	4.3	4.63
Negative peer pressure is one big reason why some of my students are not motivated to learn in school	5.68	5.91	5.69	5.68
Some students are not motivated to learn because they are just lazy.	5.82	5.97	5.13	4.81
Some students in my class just don' care about learning-period.	t 6.51	6.17	5.82	5.72

Research Question Four

Table 33 (cont.)

The impact of student teacher relationship on student motivation and therefore, student learning has proven to be significant in the literature review findings. This research question explored the impacts of having access to information through learner profiles on the teacher perceptions of their relationships with students. Measurement of teacher perceptions was conducting utilizing the STRS. Twelve students were randomly selected for each third-grade teacher to complete the STRS during both administrations of the survey. The survey measured three components to determine positive or negative teacher perceptions of relationships with students. These three components were conflict, closeness, and dependency (Appendix R). When examining the data, it is critical to note that lower conflict scores and percentiles are desirable. Higher scores on the closeness component of the survey demonstrate that the teacher perceives the student as viewing them as supportive and as a resource. The dependency scores

can be viewed both positively and negatively. High scores mean that the teacher perceives the student as overly dependent or having an overreliance on them. An examination of Table 34 demonstrates the mean scores for each category for pre and post treatment. The mean percentiles are also noted in this table.

Table 34

Mean Scores and Percentiles for STRS: Conflict, Closeness, and Dependency for Pre and Post Treatment

Measures	Conflict	Closeness	Dependency
	Mean Mean %	Mean Mean%	Mean Mean%
PreTreatment	28.26 70.5%	31.91 9.43%	16.71 88.95%
PostTreatment	24.58 63.52%	37.76 25.1%	16.58 87.80%

The mean scores and percentiles from pre to post survey demonstrated a decrease in perceptions of conflict, an increase in teacher perceptions of closeness, and consistency in perceptions of student dependency. The low and high SES students were disaggregated to determine if any differences existed between how teacher perceived relationships in relation to group membership (table 35 and table 36).

Table 35

Mean Scores and Percentiles for STRS: Conflict, Closeness, and Dependency for Pre and Post Treatment by High SES

Measures	Conflict	Closeness	Dependency
	Mean Mean %	Mean Mean%	Mean Mean%
PreTreatment PostTreatment	28.16 70.21%	30.82 10.43%	16.77 88.75%
	24.52 63.23%	35.94 23.23%	16.56 87.55%

Table 36

Mean Scores and Percentiles for STRS: Conflict, Closeness, and Dependency for Pre and Post Treatment by Low SES

Measures	Conflict	Closeness	Dependency
	Mean Mean %	Mean Mean%	Mean Mean%
PreTreatment	28.26 70.54%	29.96 8.23%	16.71 88.95%
PostTreatment	24.57 63.52	40.17 28.77%	16.58 87.8%

Qualitative Data Analysis

This study was enhanced when examining qualitative data in addition to quantitative data (Yin, 2016). These sources of qualitative data were assessment conducted by cultural conversations groups on the stage our staff was at on the cultural competency continuum (Appendix S). These groups assessed the staff at stage four, cultural pre-competence level prior to treatment. This stage was described as the desire to deliver quality services and commitment to diversity indicated by hiring minority staff, initiating training, and recruiting minority members for agency leader, but lacking information on how to maximize these capacities. The area of need identified in this stage was lack of support to help culturally diverse or minority populations to adapt to the work environment. Following treatment, the same cultural conversation groups agreed that they had moved to stage five, cultural competence. This stage is described by acceptance and respect for difference, continuing self-assessment, and careful attention to the dynamics of difference, continuous expansion of knowledge, and resources and adaptation of services to better meet the needs of diverse populations. Staff assessment of movement to the final stage of cultural proficiency is positive. However, analysis of the cultural competency continuum characterizes stage 5 as becoming complacent because of the feeling of completing a program when competency must be consistently analyzed and worked on.

During PD session 3, the staff engaged in cultural conversation groups to evaluate the PD and its implementation. This was done in small groups to encourage open and authentic dialogue and capture accurate assessment of the value of the treatment, PD. This qualitative data was captured as quotes which helped to better understand qualitative findings. The following are highlighted to support further discussion in chapter five;

- "An understanding of productive struggle and how to use it as a motivational tool has helped my ability to meet the needs of different cultures."
- "Progress in cultural competency is clear by my team members highlighting other cultures/languages within the classroom as a learning resource"
- Research on productive struggle has been helpful to explain the learning process is different for each student and teacher.
- "Language and Culture should not negatively impact learning but should positively impact learning.
- "We are embracing the cultures of each student and utilizing families as educational resources

Summary

The analysis of this data demonstrated findings that support a valid evaluation of the treatment program while examining the impact of independent variables on dependent variables. The data also provides the researcher with the ability to make recommendations for the collection and analysis of additional literature as well as recommendations for the implications this study has on the problem of practice.

CHAPTER FIVE

DISCUSSION

Introduction

The socioeconomic status of students strongly influences the level of understanding a teacher has about their contexts. This dissertation began with the premise that if a teacher could increase their understanding of low SES student contexts it would result in a positive influence on that student's motivation. The literature revealed that deficient teacher understanding of low SES student contexts was impacted by significant factors that are deeply institutionalized in our society. These factors were the notable differences in social class experiences between students and teachers, the social class structures of our society and their influence on education, and the complexity of the sociological impacts of living in poverty. These factors not only contributed to low teacher understanding of contexts, but the literature demonstrated that it resulted in misperceptions and biases that negatively influenced motivation, relationships, and ultimately, learning.

This research was conducted to examine the impacts of collecting and distributing information regarding student contexts and its influence on student motivation. Further, this information was utilized to support the development of cooperative learning groups. This chapter analyzes these impacts by investigating the findings of the research questions, the relationship between the findings, the literature and practice, and utilizing these findings to understand limitations and make recommendations for its implications on education and further research.

Research Question One

The first research question examined the impacts of collecting student information to construct cooperative learning opportunities and its influence on student motivation. If one conducted a simple t-test and analyzed the mean scores of pre and post treatment groups, it would support hypothesis 1 or that student motivation increased as a result of participation in cooperative learning groups. Specifically, significant growth was demonstrated on the pre and post treatment means on the total survey and the self-concept component of the survey. This growth was also demonstrated when analyzing the mean line plots. However, analyzing this data alone is not a methodologically sound research method.

Therefore, analysis of interactions was measured through a mix between and within ANOVA to determine if there were significant differences between groups. Significant interactions on all sub scales were detected twice. A significant interaction effect between scores on self-concept and treatment groups was detected, F(1, 174) = 6.180, p < .05; $\Lambda = .966$; $\eta^2_{partial} = (.03)$. It is critical to note the small effect size, which means 3% variance in scores can be attributed to the interaction. Analysis of interaction effect for total measures and the treatment group demonstrated a significant interaction, F(1, 174) = 4.683, p < .05; $\Lambda = .974$; $\eta^2_{partial} = .03$. Again, this interaction was small as noted by partial ETA squared demonstrating that 3% of scores is attributed to this interaction. Multiple analyses of other interactions between subscales and groups resulted in no significant interaction. To further determine if these significant interactions could be statistically supported to be attributed to treatment, analyses of main effects were necessary. In both cases of these significant interactions, they demonstrated low significance. This means that the hypothesis was marginally supported for the total MRP-R survey and for the self-concept portion of the MRP-R as the result of detecting a .03 effect size.

It is critical to note that group membership resulted in significant interactions (F (1, 174) = 17.395, p < .001; η 2partial = .09) which demonstrates that group membership is contributing to motivation more than treatment. Supporting this finding is the increase of mean scores for the treatment group and the decrease of mean scores for control from pre to post. Therefore, even though a positive interaction between treatment and self-concept and total survey measures were detected, group membership has a higher effect size (.09).

Research Question Two

This research question explored the relationship between treatment and SES groups. The hypothesis was that motivation of students in the low SES group would increase as a result of engaging in cooperative learning through literature circles. Analysis of the three subscales of the MPR-R demonstrated that this hypothesis was not supported for total survey, self-concept and for value of reading. Demonstrating rejection of this hypothesis was the significant difference in scores on measures of self-concept between the SES groups, F(1, 172) = 15.229, p < .001; $\eta^2_{\text{partial}} = .08$. With those in the high SES group scoring higher (M = 32.553, SE = .478) than the low SES group (M = 30.100, SE = .408). This higher performance by the high SES could be attributed to treatment as a result of the .08 effect. To determine if this effect size was the result of main effects (pre/post) a partial ETA squared was conducted which demonstrated no significant differences (F (1, 172) = .201, p = .655; L = .999; η 2partial = .000). Instead, similar to research question 1, condition or group membership demonstrated significant differences in scores on measure of self-concept between the two groups, (F(1, 172) = 10.784, p < .01); η 2partial = .06.). With those in the treatment group scoring higher (M = 32.359, SE = .401) than those in the control group (M = 30.295, SE = .484). This means that there are significant differences between the groups on their scores for measures of self-concept, estimated marginal

means. However, the lack of an interaction effect for pre to post suggests this difference is not a result of a treatment effect.

Interaction based on condition proved to be significant on all subscales of the MRP-R. The treatment group continued to demonstrate higher motivation on all subscales of the MPR-R. Analysis of mean scores on the total survey, demonstrated a significant difference among low SES students in treatment and control of the post test. This difference was treatment (M=65.07) and control (M=56.15). It is critical to note that high SES for treatment and control remained relatively the same. Similar to research question one, the means plot and comparison of means demonstrates significant differences. Some of these significant differences are supported when examining the interaction effects. However, analysis of main effects demonstrated the changes are being driven by group membership, not treatment.

Research Question Three

Research question three focused on evaluating the relationship of teacher perceptions of student motivation and the deliverable, PD sessions focused on cultural competency. The hypothesis for this research question was teacher perceptions of student motivation would increase as a result of professional development on cultural competency. This hypothesis was fully supported. As briefly discussed in chapter four, there proved to be a significant interaction effect between the independent variables of treatment group and time, F(1, 55) = 11.300, p < .01; $\Lambda = .830$; $\eta^2_{\text{partial}} = .17$. This result was significant, 17% of variance in scores on perceptions of student motivation could be explained by this result. Further supporting this interaction, the main effect (group) proved significant differences between the groups, F(1, 55) = 11.854, p < .01; $\eta^2_{\text{partial}} = .18$. This means that 18% of variance in scores on perceptions of student motivation is explained by this result. These results support the treatment impacting an increase

in teacher perceptions of student motivation. Given the increases in motivation on the subscales of the MRP-R being attributed to treatment, analysis of potential causes within the treatment group must be considered.

The data demonstrated compelling findings of a relationship between student motivation and teacher perceptions of motivation. Of significant interest is how the pre to post progressions or regressions were correlated between the two tests. When examining the sub scales of the treatment group on MRP-R, they are all increasing or progressing. The PSM for the treatment group is progressing as well. At the same time, the line plots for control groups for MRP-R and PSM are regressing. Mean scores for individual questions were analyzed to further examine this relationship. The results were significant and provide insight into the influence of professional development on teacher perceptions of student motivation and how those perceptions influence student motivation to read. Four questions on the PSM demonstrated near and above one point differences on a seven point Likert scale. A difference of one point on means scores on a Likert scale is extremely significant (Dawes, 2008). These questions demonstrate a significant variance in teacher perceptions in how outside school factors impact student motivation. The control group clearly demonstrated perceptions that student motivation was impacted by lower parental values of education (-.073), that students had lower aspirations for the future and don't recognize the importance of their current education on future success (-.98), the impacts of peer pressure on value of learning (-2.13), and the overall view that students output lower effort (-1.16) (Table 37).

Table 37

Individual Ouestions on PSM Post Survey between Treatment and Control

Question	Post Treatment M	Post Control M	Diff
Generally, my students are unmotivated because their parents don't care about or value education.	6.59	5.86	0.73
If students aren't motivated to learn in my class, it is often because they don't have aspirations that connect to education, like plans to go on to college.	6.02	5.04	0.98
Generally, the students in my class who are not interested in learning are that way because of peer pressure to devalue school.	6.17	4.04	2.13
Some students are not motivated to learn because they are just lazy.	5.97	4.81	1.16

When taking into account the significant interactions (η2partial = .18) demonstrated on the mixed and between subjects of analysis of variance, the findings demonstrate that the professional development teachers received resulted in increased perceptions of student motivation. Further, given the increase in motivation by students in the treatment group on the pre and post total, SC, and value surveys, the correlation could be drawn that increases in teacher perceptions of student motivation result in increases in student motivation. When examining the independent variables of treatment (cooperative learning strategy, professional development, and learner profiles) assumptions could be drawn that professional development or learner profiles attributed to increased motivation as reported by third grade students and increased teacher perceptions of student motivation. A key outcome is the influence of teacher perceptions of their relationships with students on student motivation.

Research Question Four

The literature review highlights how student teacher relationships are influenced by the ability to develop connections (Klem & Connell, 2004; Pianta, 2001). The understanding of student contexts, specifically their interests and family backgrounds, are key to the development of relationships (Gay, 2000; Hammond, 2015). The research question was if there was a correlation between teacher perceptions of the relationships they have with their student and student motivation. The STRS has proven to be a reliable survey to assess student teacher relationships. The findings demonstrated significant increases in closeness. It is critical to note the low levels of perceived closeness that teachers had at pretreatment (9th percentile). Even though there was significant growth, levels of perceived closeness were still relatively (25th percentile). In relation to the conflict subscale, there was a notable decrease from pretreatment (M=28.26) to post treatment (M=24.58) which was desired. Of concern was the high levels of dependency on the pre (M=16.71) and post (M=16.58). Both scores were at the 88th and 87th percentile. Pianta (2001) describes this as problematic because it indicates that the student tends to react strongly when separating from their teacher and often requests help when not needed.

One of the most significant findings demonstrated on the STRS was the pre to post treatment growth for low SES students on the closeness subscale. This growth was demonstrated from pre-survey (M=29.96) to post-survey (M=40.17). This also resulted in movement from the 8th percentile to the 28th percentile. This differed notably from the higher SES group. As demonstrated in the literature, the increase in motivation of low SES students is attributed to teacher ability to develop meaningful relationships (Schlosser, 1992). These findings are even more significant because students of low SES often experience less optimal relationships with teachers (Hamre, Pianta & Jerome, 2009).

When examining the results of the STRS to student motivation to read, both student motivation and teacher motivation increases in both the high and low SES groups. Of significance was that high SES students was lower (M=31.55) than low SES students (M=33.10). Given that closeness on the STRS was also higher for low SES students, the findings demonstrate that an increase in teacher perceptions of relationships with students results in increased value of reading among both social class groups, but has an even more significant correlation with low SES students.

Summary of Findings

Cooperative Learning, Self-Concept, and Value of Reading

The treatment of cooperative learning proved to have a marginalized interaction on a student's SC. An effect size of .03 was detected which is minimal, but it provides the researcher with statistics that demonstrates student ability to access cooperative learning literature circles slightly impacted their motivation to read. An effect size of .03 also was detected for the interaction between total survey scores and the treatment group. The total survey is the complete student motivation to read raw score, meaning the treatment had a marginalized impact on total motivation. For value of reading, there were no positive interactions meaning that treatment had no impact on this dependent variable. Therefore, cooperative learning methods had a marginal influence on student motivation to read, specifically self-concept. According to Pianta (2001), self-concept is defined as a reader's self-perceived competence in reading as well as their self-perceived performance relative to peers.

Even though this finding established a positive interaction between treatment and the dependent variable, motivation to read, the data demonstrated that condition or group membership was a driving factor. This was proven by significantly higher mean scores for the

treatment group. These findings were encouraging, but also promoted the need for additional analysis to determine what the cause of statistical differences were as a result of group membership.

Cooperative Learning and SES

The treatment of cooperative learning demonstrated no statistically significant interactions with the motivation of low SES students being more significant than high SES students. However, again, group membership demonstrated higher levels of motivation among low SES students in the treatment group than in the control group. The main effects with condition were significant between SES groups in all subscales of the MRP-R survey. The partial ETA squared effect sizes were for total survey (.07), self-concept (.08), and for value of reading (.06). Analysis of marginal means demonstrates these levels to be significant. However, treatment of learner profiles to create cooperative learner profiles is not the cause of this increased motivation. Therefore, additional analysis is required to understand the differences in group membership.

Teacher Perceptions of Student Motivation

As discussed earlier, the findings of this survey were significant. It demonstrates a significant interaction between treatment and teacher perceptions of student motivation. The professional development that was delivered to the treatment group increased perceptions of student motivation among teachers. The analysis of the individual questions demonstrated the teachers in the treatment group did not believe that mitigating factors impacted student motivation. Teachers in the treatment group perceived students as having aspirations for the future, such as attending college. These teachers also had more positive views of the amount of effort that students put into their learning or their value of learning.

The examination of the PD learning progressions demonstrated increased perceptions of student motivation. The analysis of qualitative data, specifically where groups of teachers placed themselves on the cultural competency continuum demonstrated an increase of one level from the beginning to the conclusion of PD. This increase was defined by developing a stronger understanding of the differences in the way members of different cultural groups prefer to learn (Gay, 1995). It was specifically reported that an understanding of productive struggle resulted in better understanding motivational theory and strategies. These qualitative findings supported the quantitative data that demonstrated that an increased understanding of students resulted in an increased perception of student motivation. Relative to quantitative findings, an analysis of the mean plot progressions demonstrates a correlation between growths in student reported motivation and teacher perceptions of student motivation. These findings demonstrate the student motivation in reading increases as a result of the way the teacher perceives them. Therefore, teacher perception that is based on an understanding of student contexts that eliminates biases and assumptions is critical to motivation. Simply put, if teachers perceive students as motivated, they will be motivated.

Learner Profiles and Teacher Perceptions of Relationships

This treatment focused on culturally responsive teaching as a means to motivate students in literacy, specifically, students of low SES. The study demonstrated that learner profiles are a CRT strategy. Literature demonstrates that enhancing one's cultural capital through learning about the individual cultures that make up your classroom is the foundational CRT practice. The use of learner profiles complimented this practice by providing teachers with information about student cultures from the parent perspective. Literature supported that access to the parent perspective on culture can be difficult for teachers to obtain. When examining the results of the

STRS, it demonstrates that closeness increased among all students while conflict decreased. When examining teacher perceptions of relationships with low SES students, it demonstrated that closeness increased more substantially. As a result, the findings are that learner profiles help teachers to build more positive relationships with students. Of significance, they clearly provide the teacher with a resource to establish a connection with low SES students that research claims can be more difficult to create.

Further consideration should be given to the impact of learner profiles on student motivation and teacher reported perceptions of student motivation. Simply stated, the ability to access information about student interests and cultural background empowers teachers to implement motivational strategy and become stronger with CRT.

Findings and Literature

The literature revealed that society has adopted many misperceptions and biases regarding the contexts of low SES students. These misperceptions were illustrated through the myths of the culture of poverty (Gorski, 2008), the institutionalized practices and mindsets that developed as a result of social class structures (Lareau, 2011), and teachers' lack of understanding of the complexity of the sociological impacts that occur as a result of a child living in poverty (Jensen, 2009). Through the literature, it was made clear that students of low SES are negatively impacted by the causes of low motivation. Hadre & Sullivan (2007) describe reasons students are unmotivated, including home factors, peer factors, personal factors, and lack of aspirations. The PSM specifically measures these causes and the differences between the treatment and control are significant. Findings demonstrate that post-survey results for the treatment group (M=5.38) for the causes of motivation sub scale were significantly higher than the control group (M=4.67). This higher score is attributed to teachers in the treatment group

acquiring a specific understanding of the external factors that can influence motivation. An increased understanding of these factors provided teachers with the information or understanding to separate the factor from their perception of the student's motivation.

The findings show that many of the misperceptions documented in the literature were challenged as a result of treatment. First, society has the perception that poor people devalue education and as a result parents of low SES students are uninvolved in their child's learning (Gorski, 2008; Jensen, 2009). Through an analysis of mean scores for individual questions on the PSM, post treatment findings demonstrated that the treatment group did not hold this perception. Specifically, for the question "Generally, my students are unmotivated because their parents don't care about or value education" the treatment group scored (M=6.59) significantly higher than the control group (M=5.86). On a Likert scale, the difference of (-.073) was significant. According to Dawes (2008), the difference of one point on means scores on a Likert scale is significant. These findings demonstrate that as a result of the intervention, teachers developed an increased understanding of a student's cultural or family values of education. In addition, as a result of the intervention, teachers gained an understanding that the behaviors a low SES family may exhibit do not mean they value education any less that higher SES families. Teacher development of this understanding is a key to overcoming deficit theories that are attributed to social class. Collins (1988) explained social class deficit theory by claiming poor people are poor due to their own values and lack of intellectual ability. This deficit theory that is a component of Gorski's (2008) culture of poverty can be confronted when educators develop a true understanding of the values of low SES families as a result of developing contextual understanding.

The increased teacher understanding of low SES student contexts also addressed the common teacher belief that students living in poverty lack hope and optimism and this can be associated with low motivation or effort (Jensen, 2013). Analysis of the question on the PSM, "If students aren't motivated to learn in my class, it is often because they don't have aspirations that connect to education, like plans to attend college", demonstrated a significant difference between treatment (M=6.02) and control (M=5.04) on the post survey. This again demonstrated that the misperception that low SES students lack hope and optimism and therefore motivation can be addressed through professional development.

Relative to the literature, Jensen (2009) explains that low SES students are more susceptible to at risk behaviors as a result of poor modeling among peers. Therefore, teachers frequently perceive or believe a low SES student to represent the stereotypes they have learned to associate with the group. The findings of the PSM exhibit that the pressures of peers to devalue the importance of education can be attributed to teachers having a superficial understanding of low SES student contexts. The question, "Generally, the students in my class who are not interested in learning are that way because of peer pressure to devalue school", demonstrated the significant impact of treatment. On the post PSM, the treatment group had a mean score of 6.17, which was a 2.13 higher than the control group (M=4.04). This finding demonstrated the importance of teacher's developing understandings and relationships that are based on individuals, not the stereotypes and biases that accompany social class structures.

The impact of increasing teacher understanding of low SES student contexts had a significant impact on teacher perception of the causes of motivation. In addition, it had a significant impact on the perception of student motivation. Seven questions on the PSM accounted for teacher perceptions of the strength of students' motivation based on the actions

they observe in the classroom. These findings demonstrated a significant difference on the pre PSM (M=5.51) and post PSM (M=5.78) for the treatment group and pre PSM (M=5.08) and post PSM (M=4.74) for the control group. Given that the significant interaction as measured by the ANOVA is not a result of the condition or group, these findings are significant. They demonstrate that the growth of the mean scores can be attributed to the treatment that was delivered.

An analysis of these seven questions illustrates the importance of developing perceptions of students that represent an in-depth understanding of their contexts. Included in these contexts are the sociological impacts that are associated with living in poverty. As a result of the sociological impacts of poverty, students of low SES are commonly viewed as having low motivation or not demonstrating the effort needed to be successful (Jensen, 2009; Jensen, 2013; Beegle, 2006; Klem & Connell, 2004). Teachers lacking the understanding of these sociological factors can mischaracterize this as a negative perception of motivation. This negative perception was demonstrated when analyzing the findings of the PSM. For the question, "Some students are not motivated to learn because they are just lazy", the difference between the treatment group (M=5.97) and control group (M=4.81) was 1.16. Negative perceptions of student motivation are often the result of teacher's lacking understanding of individual student contexts and buying into the assumptions that define the culture of poverty. This lack of understanding has implications on the instruction that teachers deliver. Specifically, because value is not placed on the individual, instruction reflects the traditional teaching outlined in the pedagogy of poverty which is intended to meet the assumed needs of the group.

Treatment programs like the one defined in this study are critical to ensuring relevant learning opportunities are created that reflect the social make up of individual students, not the underlying assumptions that maintain the social class status of low SES students.

Findings and Theoretical Framework

There is a significant relationship between the findings of this study and Vygotsky's (1978) social constructivist learning theory. This theoretical framework stressed the importance of social interaction to construct meaning. One of the major tenets of the social constructivist learning theory is the Zone of Proximal Development (ZPD). Relative to the findings, cooperative learning methods provide students with the social environment that exposes them to more capable peers to bring them to potential development (Vygotksy, 1978). The findings demonstrated substantial increases in motivation as measured by the pre and post MRP-R surveys for the treatment group. These increases in motivation can be understood through examination of the social constructivist learning theory. Student motivation to read increased as a result of the social setting. Reading comprehension was supported by exposure to peers that differed from common reading groups that were established by reading level alone. These social groups were created by common interests and common choice. Therefore, these heterogeneous settings increased motivation for higher functioning peers as a result of supporting peers to reach ZPD and lower functioning peers as a result of being exposed to higher level texts and being able to comprehend them as a result of peer support. As a result, construction of knowledge in diverse social grouping resulted in increased motivation.

The social constructivist theory helped to understand increases in motivation to read that occurred with low SES students. An examination of reading groups within the professional context demonstrates that reading groups are commonly socioeconomically segregated. More

specifically, higher reading groups are more represented by higher SES students where lower reading groups are more represented by lower SES students. Therefore, by establishing a social setting that exposes students to diverse backgrounds, varying levels of background knowledge, and different experiences results in assisting their development beyond reading level alone.

Further, teachers were able to use increased understanding of low SES student contexts to enhance relevancy in relation to interest and cultural backgrounds. With low SES student contexts reflected in the classroom through learning opportunities and as a tool to develop relationships, motivation increased.

Implications for Teachers

The responsibility of teachers has never been more demanding. These increased demands are a result of requirements to consistently collect vast quantities of student performance data, the revolving implementation of educational reform initiatives such as the Common Core State Standards (CCSS), curriculum shifts associated with CCSS, and the wide diversity of academic needs of 21st century students. This wide diversity is no better represented than in students of low SES. With the noted cultural gaps between students and teachers and the expectations that teachers acquire knowledge of individual students' cultures, strategic initiatives are needed.

Given the time demands placed on teachers as a result of expanding responsibilities the acquisition of knowledge of each student's cultural background is unrealistic. These time restraints can be overcome through the utilization of the PD program and resources utilized in this study. In addition to having great accessibility to information to deepen understanding of low SES student contexts, teachers will overcome misperceptions or misunderstandings that have been developed as a result of the underlying factors.

There are limited PD opportunities and strategic instructional practices that support the ability of teachers to meet the needs of low SES students. The development of professional development programs that specifically support teachers with increasing understanding of low SES student contexts is critical to their motivation and achievement. Low SES students commonly receive teaching that is direct, basic, and neglects their individual differences in the interest of providing learning opportunities that represent traditionally biased group characteristics. The research demonstrates a lack of thoughtfulness to construct learning that is driven by a desire to understand; a desire to understand the challenges, experiences, needs, and wants of low SES students. A social understanding of these students' contexts is needed as much if not more than an understanding of their academic needs. As Jensen (2009) states, "Do not dismiss the soft side of student's lives, the social side. It influences their brains, their feelings, and their behaviors, which run cognition" (p. 20). The dismissal of this side of low SES student's lives has contributed to them not seeing themselves in their own educational experiences.

Implications for School Administrators

There are implications for school administrators to consider in regards to this study. With minimal PD programs to meet the increasing socioeconomic diversity in schools administrators should consider the use of the program utilized in this study. A common challenge in schools today is the capacity of educators to not only motivate low SES students, but all students. The findings of this study demonstrate that teacher perceptions of student motivation are a significant driver to student's levels of motivation. Given these results, school administrators must consider adopting similar practices to increase student motivation to read.

Another key component of the program that has implications for school administrators is the inclusion of parent input in constructing educational experiences. School administrators are consistently looking to engage parents, specifically those from lower SES due to the demands and challenges they experience. This study provided tools and strategies to access sensitive information from parents about their cultural and family background. The information was used to construct learning experiences which empowered parents and demonstrated that their input was valued.

Implications for District Leaders

The insights gained in this study may inform federal, state, and district level educational leaders with research to support the development and implementation of similar programs. Educational leaders struggle to address the implicit bias that exists among educators. As demonstrated by the research in this study, implicit bias is not isolated to race but extends to social class. The results of this study demonstrate promise in utilizing the prescribed professional development and resources to address this bias. This program may provide educational leaders with the energy and tools needed to address the deficit narratives regarding social class that exist among teachers.

Another key implication for district leaders would be expanding it to grade levels outside of third grade. Given the significance of the third grade reading benchmarks, the intervention should be considered for the primary grade levels. The expansion of increased motivation demonstrated in the study to earlier grade levels would be critical to addressing the socioeconomic achievement gap that exists in third grade reading.

Organizational transformation is necessary for teachers to be able to respond and interact effectively with student who differ in regards to social class. Educational leaders must recognize

that this transformation must begin in college teacher preparation programs. Therefore, this study has significant implications on the importance of district leaders collaborating with higher education leaders to promote the development of courses and PD on teaching students of low SES or students living in poverty. This study demonstrates the complexity of social class and the increasing number of students living in low SES, making course work in college programs critical.

Implications on the Design of Professional Development

This study has clear implications on the design of PD programs. In this study, Hammond's (2015) CRT framework was utilized to address socioeconomic diversity. Hammond's four practice areas were utilized to increase teacher understanding of low SES student contexts. The findings demonstrated that these practice areas were appropriate in providing teachers with tools to not only increase understanding but utilize it to better instruct low SES students. The development of PD programs should consider these practices and others in order to be responsive to social class diversity.

Need for Additional Research

The findings of the study demonstrate the need to examine additional literature in several areas. The power of developing an understanding of student contexts drives teacher perceptions which are proven to influence student motivation. Therefore, additional research on how to alter these perceptions through strategies or explicit practices would be beneficial. Additionally, the application of motivational theory to different cultures is a needed area of study. Motivational strategies can be proven to be effective or ineffective as a result of a student's cultural background. An examination of the relationship between cultural norms and values with the effectiveness of motivational strategy would be of significant interest. As stated earlier, this

would be helpful to the problem of practice because poverty has no distinct culture but is made up of all cultures.

Finally, relative to the problem of practice, heterogeneous grouping needs to be considered. The researcher would like to examine the current state of ability based groups. The hypothesis would be that these groups demonstrate social class segregation. The researcher would like to examine heterogeneous grouping as a socioeconomic integration strategy to further support addressing the income achievement gap in third grade reading.

Limitations

Multiple limitations need to be considered when reporting the findings. One of the most significant limitations to report is maturation. The impact of time on motivation and the development of relationships are relevant to the increases in pre and post surveys. During the intervention, concurrent events may occur that could contaminate changes in these scores. The change in scores can be the result of the confounding variable inaccurately attributed to the treatment or intervention. Therefore, future consideration should be given to extending the period of time of the intervention to account for this potential bias.

Another threat to the internal validity of this study is the understanding that respondents do not always respond truthfully. For example, when a participant completes a survey relevant to motivation or status of relationships they may respond in a socially acceptable or favorable way. Therefore, this is a limitation because responses may be inaccurate. Due to the intervention occurring in a setting where people were familiar with the research, several actions were taken to control for this limitation. These actions were having outside people administer surveys, delivering the survey through email without requesting the names of teachers, and utilizing surveys where questions did not clearly indicate how responses would be measures. An

example of this was the STRS survey where specific questions were attributed to unknown areas (conflict, closeness, dependency).

All three surveys have been utilized in a variety of studies and therefore validity and reliability has been established for these instruments. However, this can also be linked to a limitation. Validity and reliability were measured in differing populations and may differ with the identified sample population for the student. An additional limitation is the lack of qualitative data. A collection of more qualitative data regarding the perceptions of teacher motivation and the effectiveness of professional development could have helped provide more definitive answers to what specifically caused the positive interactions on the pre and post surveys. Therefore, a future consideration would be adding focus groups to collect the qualitative data that would enhance the researcher ability to interpret quantitative data.

Conclusion

The data collected and analyzed demonstrate that professional development on increasing the understanding of students and influence motivation is a strategy that is appropriate to meet the variety of cultural needs exhibited in schools and specifically among students of low SES. Further, the findings indicate that professional development can be linked to increasing teacher perceptions of student motivation and strengthening teacher perceptions of relationships with students. The findings confirm that the increases in these perceptions influence student motivation. Comparison of the treatment and control groups provide statistical evidence to verify this influence. Relative to the control group, as perceptions of teacher motivation decrease so do student motivation. These decreases are even more pronounced among low SES students as demonstrated by mean scores on the total MRP-R survey, and self-concept and value of reading sections. In the treatment group, as the perceptions of teacher motivation increase so do

student motivation. Increases in pre to post mean scores are evident on all three sub scales of the MRP-R.

Therefore, increased understanding of students does indeed influence motivation. In order to overcome the misperceptions and biases of low SES students that led to the pedagogy of poverty, one must overcome the "information gap" (Moran, 2016). Given the magnitude of responsibilities that teachers face, the time to acquire an understanding of low SES student contexts is challenging. Cultural gaps, social class structures, and sociological impacts of poverty result in making teacher understanding of students even more difficult. A tool like a learner profile provides the ability to readily access information about students, but also the ability to use this understanding to influence motivation through practices such as using information to inform academic grouping. As demonstrated by the quantitative data, strengthening teacher understanding of low SES students, results in increased teacher perceptions of student motivation, increased perceptions of teacher relationships with students, and increased student self-concept.

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APPENDIX A

Flow Chart: Dissertation Outline Problem of Practice: Deficient Teacher Understanding of Low SES Students Influence on Student Motivation Theory of Learning Theory Informing Problem of Practice Social Constructivism Theory **Self Determination Theory** Underlying Cause 2: **Underlying Cause 1:** Sociological Impacts Treatment to Address Problem of Cultural Gaps of Poverty Practice: Professional Development between Students Environmental Using CRT Framework (Hammond, and Teachers Physical 2015) Psychological 1) Acquisition of cultural awareness: learner profiles 2) Community building: cooperative learning Underlying Factor 3: PD to Support Implementation of misperceptions/bias **Instructional Practices** establish by social Learner profiles to collect information on class structure cultural background and interests of **Students** Use of learner profiles to drive the development of cooperative learning literature circles Data Analysis: Treatment's Influence on Motivation and Perceptions of Student Relationships MRP-R – Student motivation PSM – Teacher perception of student motivation STRS: Teacher perception of relationships with students

APPENDIX B

Johns Hopkins University Homewood Institutional Review Board (HIRB)

Informed Consent Form

Title: Impact of Learner Profiles and Professional Development in

Cooperative Learning Strategies on Low Socioeconomic Status Student Motivation in Reading and Teacher Perceptions of

Relationships with Students (Adult Consent Form)

Principal Investigator: Dr. Carolyn Parker, Professor, JHU School of Education

Student Researcher: Peter Moran, Student, JHU School of Education

Date: September, 2016

PURPOSE OF RESEARCH STUDY:

The purpose of this research study is to examine how learner profiles combined with teacher professional development on cultural competency and cooperative learning strategies influence student's motivation to read, teacher perceptions of student motivation, and teacher perceptions of their relationships with students.

We anticipate that approximately 60 teachers will participate in this study.

PROCEDURES:

There will be three components for this study:

- 1. Teachers will be asked to complete a consent form questionnaire (this document).
- 2. Teachers will be asked to complete a pre-test survey regarding their perceptions of student motivation in reading.
- 3. Teachers will be asked to complete a post-test survey regarding their perceptions of student motivation in reading.

Time required: The consent form should take participants approximately 5-10 minutes to review and complete. The pre- and post-test surveys will be completed online. The survey should take participants 10-15 minutes each to complete (approximately 40 total minutes). Note that individual response times may vary

RISKS/DISCOMFORTS:

There are no anticipated risks to participants.

BENEFITS:

Potential benefits are an increased understanding of how a learner profile program increases teacher understanding of student cultural background and interests to help teachers to develop positive relationships and motivate students to reading by planning relevant learning opportunities. An additional benefit is increased teacher understanding of cultural competency and cooperative learning strategies which will increase student motivation to read. It is believed that the development of the learner profile program will result in positive impacts on teachers'

perceptions of positive student-teacher relationships, teacher perceptions of student motivation, and student motivation to read.

VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW:

Participation in this study is entirely voluntary. Participants may elect to not participate in this study by not completing the consent questionnaires or indicating non-consent. If a participant elects not to participate in this study, there are no penalties and there will be no loss of benefits to which the participant would otherwise be entitled.

Participants may also elect to stop participation at any time while completing the questionnaire without penalty or loss of benefits. If the participant elects to withdraw, they must not submit the consent questionnaire. If you have questions, please contact Peter Moran via phone or e-mail: (301) 929-2014, peter_moran@mcpsmd.org.

CONFIDENTIALITY:

Confidentiality will be maintained because the researcher is not requesting that teachers identify themselves on the surveys.

COSTS

There are no costs to participants in this study.

COMPENSATION:

You will not receive any payment or other compensation for participating in this study.

IF YOU HAVE QUESTIONS OR CONCERNS:

Participants can ask questions about this research study at any time during the study by contacting Peter O. Moran via phone or e-mail: (301) 929-2014, Peter_Moran@mcpsmd.org If participants have questions about their rights as a research participant or feel they have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

SIGNATURES

WHAT YOUR SIGNATURE MEANS:

Your signature below means that you understand the information in this consent form. Your signature also means that you agree to participate in the study.

By signing this consent form, you have not waived any legal rights you otherwise would have as a participant in a research study.

Participant's Signature	Date
Signature of Person Obtaining Consent	Date

APPENDIX C

Johns Hopkins University Homewood Institutional Review Board (HIRB) Permission Form for Students' Participation in a Research Study on Student Motivation in Reading

Dear Parent or Guardian:

Glenallan Elementary School is participating in a study to examine the way in which learner profiles and cultural responsive teaching strategies influence student motivation in reading, the relationships they have with their teachers, and their reading achievement. A learner profile is an instrument that will be created that includes information about your child's interests and cultural/family background that will voluntarily be provided by you and your child. It is critical that students are highly motivated in reading in order to experience academic success. This study will provide information on how an increased understanding of your child's cultural background and interests help teachers to plan highly motivating learning opportunities in reading and support their development of relationships with students. A researcher from the School of Education at Johns Hopkins University is leading the study.

The Montgomery County Public Schools plans to give some information to the researcher about third grade students at Glenallan Elementary School. The information will include data on:

- Students' group memberships (male or female, ethnic groups, etc.).
- Students Free and Reduced Meals (FARMS) status.
- Student information about their interests and cultural background through their participation in focus group discussions during their lunch time.
- Students will be surveyed two times during 2016-2017 to measure their motivation to read.
- Teachers will be surveyed two times during the 2016 2017 school year to measure perceptions of relationships they have built with students.

The insights gained from the study may help Glenallan Elementary School and other schools increase students' motivation in reading and develop increasingly positive student/teacher relationships.

PROCEDURES:

There will be five components for this study impacting student participants:

- 1. All parents of student participants will be asked to complete a consent form (this document).
- 2. All students will participate in 30 minute focus groups with other students during their lunch time to discuss academic and social interests. They will be held during lunch so they will not interrupt any instruction. This information will be used to select books of interest and inform teacher planning of lessons that reflect student interests.
- 3. All parents will be asked to complete a cultural/family background questionnaire with their child.
- 4. All students will be asked to complete an online survey at school on reading motivation in September and January.
- 5. Throughout the period of September 2016 to January 2017, your child's teacher will receive professional development and use learner profiles to plan reading lessons.

Time required: The consent form should take participants approximately 5-10 minutes to review and complete. The student surveys will take 15-20 minutes. Note that individual response times may vary.

Parents and students should understand that:

- The information given to the researchers will only be used for the study and related research. The information will be used to prepare a summary of the main findings. The summary will not include information on the performance of specific students. Data will be stored in a secure area accessible only to the researchers.
- Risks: the study presents minimal risk to your child. Researchers will be able to identify
 specific children; however researchers will keep even this data confidential and no student
 names will be included in the findings.
- Benefits: study participation helps build knowledge about how to better support students' success in reading during the third grade year.
- Participation in this study is voluntary. If a student does not participate in the study, he or she will still receive the academic and non-academic supports offered at Glenallan Elementary School. You may withdraw your child from the study at any time with no consequences.

If you do not want data from your and your child's participation in focus groups or surveys conducted, even if this information is kept completely confidential, please mark the box below, complete the information at the bottom of this letter and return this page of the letter to Principal Peter Moran at Glenallan Elementary School by September 16, 2016.

If you have any questions about the study or your child's rights as a participant, please contact Professor Carolyn Parker, Johns Hopkins University at 410-516-9774 or Peter O. Moran, student researcher, at 301-929-2014.

Sincerely,

Dr. Carolyn Parker Professor, School of Education, Johns Hopkins V	University
I do not want my child, to participate in this research project.	[Please Print Full Student Name]
Your name (Please Print):	
Your signature:	

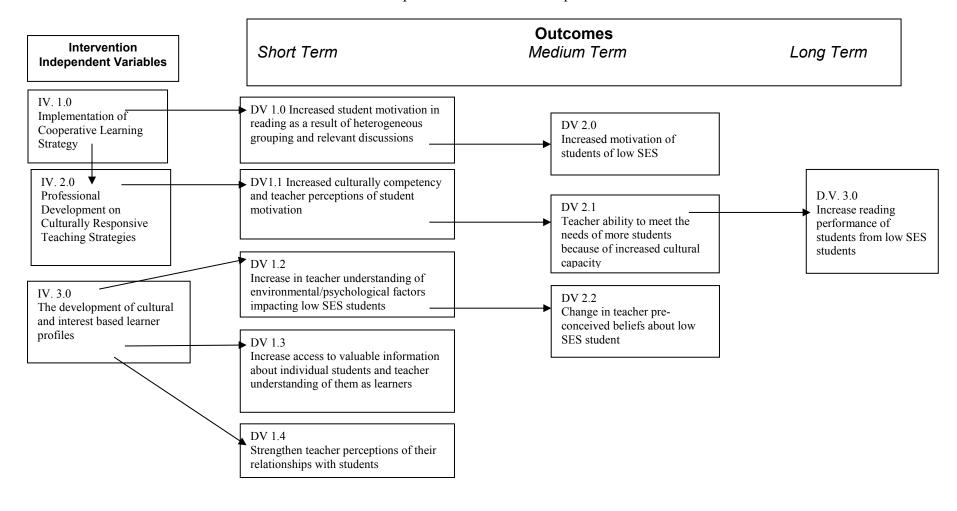
APPENDIX D

Data Collection Matrix

Indicator	Roll of Indicator	Data Source(s)	Frequency	Responsibility		
Positive variance in student motivation in reading	This is an outcome variable.	Positive variance between pre and post for Tx group versus C group as through a dependent two-tailed t -test $(p \ge .05)$.	Two times measured; preand post-test.	Researcher		
Positive variance in increased CRT and understanding of student profiles, as measured through perceptions of relationships	This is an outcome variable.	Positive variance between pre and post for Tx group versus C group as measured by descriptive statistics.	Two times measured; preand post-test.	Researcher		
Teacher professional development treatment evidenced by perceptions of student motivation	This is an outcome variable.	Coding and analysis	Two times measured; pre and post test	Researcher		
Sustained variance in student C group not receiving Tx	This is a control variable.	Sustained variance between pre and post of C group as measured through a dependent two-tailed t -test $(p \ge .05)$.	Twice measured; pre- and post-test.	Researcher		
Tx and C teacher groups self-reporting of prior knowledge of CRT strategies.	This is a mediating variable.	Descriptive statistical analysis of pre to indicate outlier scores in both Tx and C teacher groups.	One time in pre-test.	Researcher		
Examination of variance in motivation between low and high SES students	This a moderating variable not identified through quantitative indicators.	Descriptive statistical analysis of pre to post survey data	Two times measured; preand post-test.	Researcher		

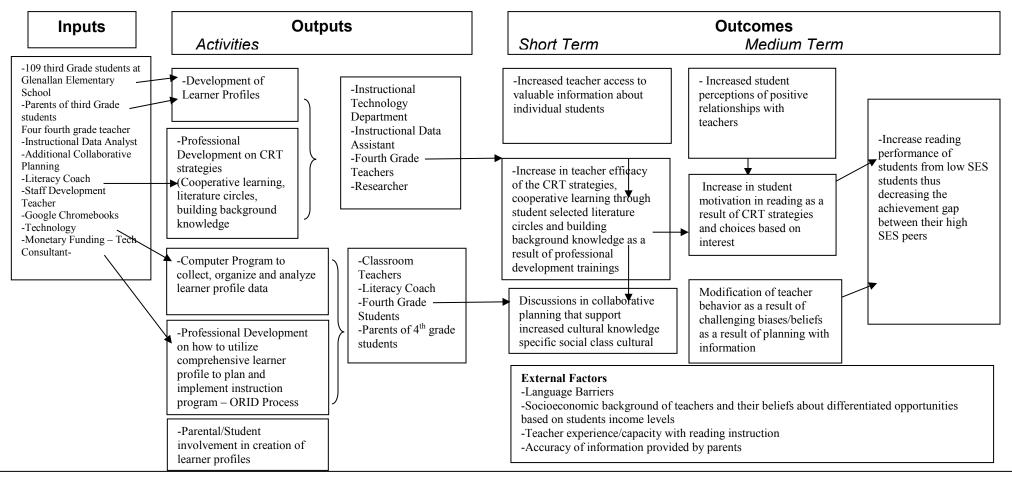
APPENDIX E

Causal Model: Independent Variables vs. Dependent Variables vs. Outcomes



APPENDIX F
Third Grade Literacy Income Achievement Gap Logic Model

ion: The Use of Comprehensive Learner Profiles to Address Reading Performance Gap between High Income and Low Income Third Grade



Assumptions

- I assume that teachers are able to more effectively differentiate instruction for students from higher socioeconomic environment than those students from lower socioeconomic environments.
- I assume that teachers are more capable of accessing information from students living in high socioeconomic environments more than those students living in low socioeconomic environments.
- I assume that providing professional development on the learning impacts of living in poverty and offering strategies that can be utilized will be beneficial for teachers' ability to deliver more effective instruction. Furthermore, I assume that teacher will implement these strategies into their daily practices.
- I assume that students and parents will provide accurate and meaningful information to determine learning styles, interests, strengths, needs, and cultural background.
- I assume that teachers will teachers will utilize information provided by the comprehensive learner profiles to modify and differentiate their instruction to support students living in low socio-economic environments.
- I assume that as a result of the information created by the comprehensive profile that teacher's ability to connect with students will increase, and more positive student teacher relationships will flourish.
- I assume that access to a comprehensive learner profile will support the academic success of students who have high mobility as a result of living in poverty.

APPENDIX G Treatment Design

Indicator	Description	Type of Fidelity Measurement	Data Collection Tools	Frequency	Responsibility
Cultural/Interest Learner Profile Professional Development	Treatment includes introductory professional development seminar about use, features, access of learner profile.	Adherence measure	Checklist to measure adherence to process/expectations Agendas Field notes to monitor profile PD is implemented as designed	August 2016 (2 hour seminar)	Instructional Technology Specialist (Jenny Trambadore) Researcher
Teacher perception of quality of professional development	In order to measure teacher perception of learner profiles, focused discussions will take place to collect feedback.	Quality	Field notes from Focus group discussions	One time following PD	Researcher
Cultural Responsive Teaching Strategy Professional Development	Treatment includes professional development on two CRT strategies (Cooperative Learning and connecting curriculum to student life experiences	Adherence Measure	Agendas Field notes to monitor profile PD is implemented as designed	Four professional development seminars (August, September, October, November of 2016)	Researcher
Teacher perception of quality of professional development	In order to measure the impact of PD on CRT, the quality of the PD will need to be assessed. Perception of low quality could moderate effects of PD content	Quality	Participants will complete a survey at the end of each PD session to measure if intended outcomes were met.	Four surveys will be administered following PD seminars (August, September, October & November of 2016)	Researcher
Student Motivation Measurement	In order to measure the impact of profiles and use of CRT strategies on motivation, student perceptions on intrinsic motivation will need to be measured.	Participant Responsiveness Measure	Participants will complete a pre and post to measure their intrinsic motivation in reading	Two times August Survey/Dece mber Survey	Researcher
Student perceptions of quality of relationships with teachers	As a result of teachers having access to sensitive student information regarding their cultures/family and interests, surveys will be administered to measure student perceptions.	Participant Responsiveness measure	Participants will complete a pre and post to measure their perception of relationships with their teachers	Two times August Survey/Dece mber Survey	Researcher
Teacher implementation of CRT strategies	Treatment is designed to respond to information via profiles through the usage of planned CRT strategies in a supported environment.	Quality	After each PD session, participants will be tasked with experimenting with identified CRT strategy. Evidence will be collected by observational data, examination of instructional plans and self-reporting by providing evidence of implementation.	A total of four times; once after each PD session (September October, November, & December of 2016)	Participants: posting artifacts and evidence

APPENDIX H

Cultural Background Questionnaire

How would you describe your family's cultural background	?
--	---

W	'nο	lives	with	von i	n vour	home?	Di	1 vou	ever	live.	with	vour	orand	nareni	s or	exter	nded	fan	nilv	,
vv	\mathbf{H}	$\Pi V \cup S$	willi	vou i	n voui	110111102	יוע	טטע ב	$\mathbf{L} \cup \mathbf{V} \cup \mathbf{L}$	11 0 0	willi	ı voui	granu	maiciii	lo OI	CALCI	IUCU	нап	uuuv	

Do you eat foods that are indigenous to your culture? Why or why not? If you answered yes, name some of the foods that you eat. If you answered no, what types of foods do you eat?

List a couple of things that is considered respectful in your culture?

List a couple of things considered disrespectful in your culture?

Do you have any rituals that are specific to your culture?

Define and describe the most important (or most celebrated) holiday of your culture.

If you are from a culture that speaks English as a second language, do you speak your native language? If not, why? If so, will you teach your native language to any children you have?

What would you say is, from your perspective, the most commonly held misconception about people of your culture?

Is there anything you would like others to know that we have not included here about you or your culture?

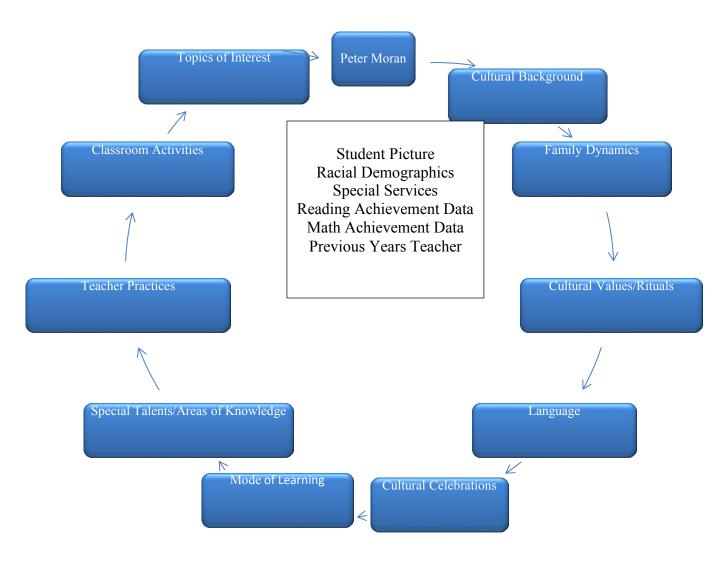
APPENDIX I

Student Interest Inventory (SII)

Student Name: Third Grade Focus Group Discussion
What is your favorite class or activity in school and why?
If you could learn more about any topic, what would it be? Why are you curious about this topic?
If you could travel anywhere in the world, where would you go and why?
Do you have a special talent or topic that you know a lot of information about? If so, what is it?
Tell me about a past accomplishment that made you feel proud of yourself.
Give an example of a classroom activity where you felt you really learned a lot. Why do you think that was?
What type of learning environment motivates you most?
What is something you wished your teacher would start doing or would stop doing that would help you learn?
Do you prefer to work alone, in small groups, or in large groups? Why?
Is there anything else you want me to know about you?

APPENDIX J

Cultural/Interest Learner Profile



APPENDIX K

THE MOTIVATION TO READ PROFILE REVISED (MRP-R)

Name:	
I am a:	
O Boy	
O Girl	
1. My friends think I am	
O a very good reader	
O a good reader	
O an OK reader	
O a poor reader	
2. Reading a book is something I like to do.	
O Never	
O Not very often	
O Sometimes	
O Often	
3. When I come to a word I don't know, I can	
O almost always figure it out	
O sometimes figure it out	
O almost never figure it out	
O never figure it out	
4. My friends think reading is	
O really fun	
O fun	
O OK to do	
O no fun at all	
5. I read	
O not as well as my friends	
O about the same as my friends	
O a little better than my friends	
O a lot better than my friends	
6. I tell my friends about good books I read.	
O I never do this.	
O I almost never do this.	
O I do this some of the time.	
O I do this a lot.	
7. When I am reading by myself, I understand	
O almost everything I read	
O some of what I read	

O almost none of what I read O none of what I read
8. People who read a lot are
O very interesting
O interesting
O not very interesting
O boring
9. I am a
O a poor reader
O an OK reader
O a good reader
O a very good reader
10. I think libraries are
O a great place to spend time
O an interesting place to spend time
O an OK place to spend time
O a boring place to spend time
11. I worry about what other kids think about my reading
O every day
O almost every day O once in a while
O never
O never
12. I think becoming a good reader is
O not very important
O sort of important
O important
O very important
13. When my teacher asks me a question about what I have read, I
O can never think of an answer
O have trouble thinking of an answer O sometimes think of an answer
O always think of an answer
arways tillik of all allswer
14. I think spending time reading is
O a boring way to spend time
O an OK way to spend time
O an interesting way to spend time
O a great way to spend time
15. Reading is
O very easy for me
O kind of easy for me

O kind of hard for me O very hard for me
16. When my teacher reads a book out loud I think it is O really great O great O boring O really boring
O hate to talk about my ideas O like to talk about my ideas O like to talk about my ideas O love to talk about my ideas
O none of my time reading O very little of my time reading O some of my time reading O a lot of my time reading
19. When I read out loud I am a O poor reader O ok reader O good reader O very good reader
20. When someone gives me a book for a present, I feelO very happy O sort of happy O sort of unhappy O unhappy

APPENDIX L

The Perceptions of Student Motivation questionnaire

1. The	students ir	ı this class rea	lly try to learr	1.				
Not at a	all true	More not tr	rue than true	More true	than not	Very much true		
1	2	3	4	5	6	7		
2. My s	students w	ork at learnin	g new things in	n this class.				
Not at a	all true	More not tr	rue than true	More true	than not	Very much true		
1	2	3	4	5	6	7		
3. My s	students ge	enerally pay at	tention and fo	ocus on what	I am teachi	ng.		
Not at a	all true	More not tr	rue than true	More true	than not	Very much true		
1	2	3	4	5	6	7		
4. The	students ir	ı this class gen	erally do class	s-related task	s and assig	nments willingly.		
Not at a	all true	More not tr	rue than true	More true	than not	Very much true		
1	2	3	4	5	6	7		
5. The	students ir	this class dor	ı't put forth m	nuch effort to	learn the c	ontent.		
Not at a	all true	More not tr	rue than true	More true	than not	Very much true		
1	2	3	4	5	6	7		
_	students ar ic or work		cted or off tasl	k, and I have	to bring th	em back to focus on		
Not at a	all true	More not tr	rue than true	More true	than not	Very much true		
1	2	3	4	5	6	7		
7. In ge class.	eneral, my	students are g	genuinely inter	ested in wha	t they are a	sked to learn in my		
Not at a	all true	More not tr	rue than true	More true	than not	Very much true		
1	2	3	4	5	6	7		

8. General education.		ents are unm	otivated beca	ause t	heir pa	rents don't c	are about or value
Not at all tr	rue M	Iore not true	than true	More	true tha	an not	Very much true
1	2	3	4		5	6	7
	y students a		ed in school,	it's b	ecause 1	they don't se	e the value of what
Not at all tr	rue M	fore not true	than true	More	true tha	an not	Very much true
1	2	3	4		5	6	7
			learn in my o on, like plans				hey don't have
Not at all tr	rue M	fore not true	than true	More	true that	an not	Very much true
1	2	3	4		5	6	7
11. Studen	ts often lack	k effort at scl	nool because	they	don't ha	ave support a	at home.
Not at all tr	rue M	fore not true	than true	More	true th	an not	Very much true
1	2	3	4		5	6	7
12. If stude learn it.	ents don't se	ee the point o	of learning th	ie con	tent, th	en they aren	't motivated to
Not at all tr	rue M	fore not true	than true	More	true tha	an not	Very much true
1	2	3	4		5	6	7
13. Some o	of my studen	its just have	too many ho	me pr	oblems	to make sch	ool a priority.
Not at all tr	rue M	fore not true	than true	More	true th	an not	Very much true
1	2	3	4		5	6	7
		ents aren't e	ngaged in my orld.	y class	s, it's be	ecause they d	lon't see the
Not at all tr	rue M	fore not true	than true	More	true tha	an not	Very much true
1	2	3	4		5	6	7

	•	dents aren't n see for themse		vork in sc	hool becau	se education has no place
Not at a	ll true	More not true	e than true	More tru	ue than not	Very much true
1	2	3	4	5	6	7
	• ,	students in my essure to deval		e not inte	rested in le	earning are that way
Not at a	ll true	More not true	e than true	More tru	ue than not	Very much true
1	2	3	4	5	6	7
	et often, if st ormation ca		working in n	ny class, it	t's because	they don't see how useful
Not at a	ll true	More not true	e than true	More tru	ue than not	Very much true
1	2	3	4	5	6	7
18. Neglearn in		ressure is one	big reason w	hy some o	of my stude	ents are not motivated to
Not at a	ll true	More not true	e than true	More tru	ue than not	Very much true
1	2	3	4	5	6	7
19. Som	e students :	are not motiva	ited to learn l	because th	iey are just	t lazy.
Not at a	ll true	More not true	e than true	More tru	ue than not	Very much true
1	2	3	4	5	6	7
20. Some students in my class just don't care about learning-period.						
Not at a	ll true	More not true	e than true	More tru	ue than not	Very much true
1	2	3	4	5	6	7

APPENDIX M

STUDENT-TEACHER RELATIONSHIP SCALE

Child:	Teacher:
Please reflect on the degree	to which each of the following statements currently applies to your
relationship with this child.	Using the scale below, circle the appropriate number for each item.

Definitely does not apply	Not really	Neutral	Applies somewhat	Definitely applies				
1	2 3 4				5			
1. I share an affectionate, warm relationship with this child.						3	4	5
	ways seem to be str		other.	1	2	3	4	5
	will seek comfort f			1	2	3	4	5
4. This child is uncor	nfortable with phys	sical affection or to	uch from me.	1	2	3	4	5
5. This child values h	nis/her relationship	with me.		1	2	3	4	5
6. This child appears	hurt or embarrasse	d when I correct hi	m/her.	1	2	3	4	5
7. When I praise this	child, he/she beam	s with pride.		1	2	3	4	5
8. This child easily b	ecomes angry with	me.		1	2	3	4	5
9. This child spontan	eously shares infor	mation about him/h	nerself.	1	2	3	4	5
10. This child is overly	y dependent on me.			1	2	3	4	5
11. This child easily b	ecomes angry with	me.		1	2	3	4	5
12. This child tries to	please me.			1	2	3	4	5
13. This child feels that	at I treat him/her un	fairly.		1	2	3	4	5
14. This child asks for	help when he/she	really does not need	d help.	1	2	3	4	5
15. It is easy to be in tune with what this child is feeling.				1	2	3	4	5
16. This child seems n	16. This child seems me as a source of punishment.			1	2	3	4	5
17. This child expresses hurt or jealously when I spend time with other			1	2	3	4	5	
children.	3	1						
18. This child remains	18. This child remains angry or is resistant after being disciplined.			1	2	3	4	5
19. When this child is	19. When this child is misbehaving, he/she responds well to my look or tone of			1	2	3	4	5
voice.								
20. Dealing with this of				1	2	3	4	5
21. I've noticed this child copying my behavior or ways of doing things.			1	2	3	4	5	
22. When this child is in a bad mood, I know we're in for a long difficult day.			1	2	3	4	5	
23. This child's feeling	gs toward me can b	e unpredictable or	can change	1	2	3	4	5
suddenly.								
24. Despite my best ef	forts, I'm uncomfo	rtable with how thi	s child and I get	1	2	3	4	5
along.	1 /-1-	4 41	C	4	0	2	4	_
25. This child whines			irom me.	1	2	3	4	5
26. This child is sneak	· •		*.1	1	2	3	4	5
27. This child openly shares his/her feelings and experiences with me.28. My interactions with this child make me feel effective and confident.				1	2	3	4	5
28. My interactions w	ith this child make	me teel effective ar	nd confident.	1	2	3	4	5

APPENDIX N

Pianta, R. C. (2001). Student-teacher relationship scale: Professional manual. Odessa, FL:

Psychological Assessment Resources.

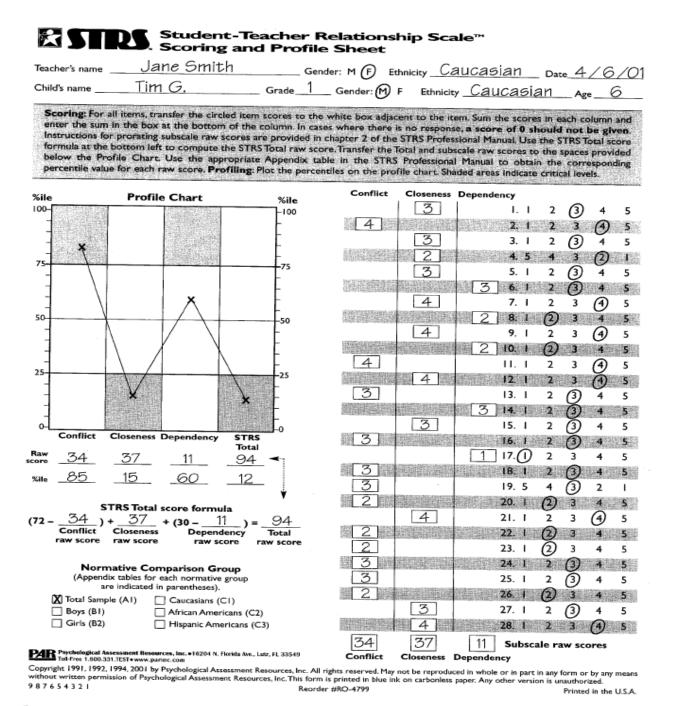


Figure 1. Example of a scored STRS protocol.

APPENDIX O

Description of Professional Development Sessions

Professional Development Title	Description
Introduction to Cultural Responsive	This PD session focused on introducing Hammond's (2015) cultural
Teaching Teaching	competency framework. This framework holds four components which
Practice Area 1: Awareness	helped support the development of the professional development learning
Tractice Area 1. Awareness	progressions. The first component we focused on was awareness
	component of the framework and presented research on unearned
	privilege and unearned disadvantage and how it manifests itself in
	education (Hammond, 2015). The major theme of this was how to acquire
	and utilize knowledge of student cultures to inform instructional
	opportunities.
Cultural Responsive Teaching	The second PD session focused on community building, another
Practice Area 2:Community	component of Hammond's (2015) cultural competency framework.
Building	Hammond (2015) describes this component as focusing on developing a
	learning environment that promotes social and intellectual safety so
	students can stretch themselves and take risks. A specific practice that
	Hammond (2015) highlights is developing culturally diverse learning
	groups were they are exposed to diverse cultural practices and
	orientations. Relative to community, PD session two focused on the
	framework and components of the CRT strategies, cooperative learning
	and heterogeneous grouping. The session provided research on the
	strategies, process for implementing the strategies, and academic and
	social benefits to students. Research was presented on heterogeneous
	grouping and the research based benefits it provides to all learners.
Cultural Responsive Teaching	PD focused on learning partnerships, another practice area of Hammond's
Practice Area 3: Learning	(2015) CRT framework. Learning partnerships are defined by the
Partnerships	development of a social emotional partnership to engage students in
	deeper learning (Hammond, 2015). These learning partnerships were
	described by Gay (2000) as culturally responsive caring which "places
	teachers in an ethical, emotional, and academic partnership that is
	anchored in respect, honor, integrity, resource sharing, and a deep belief
	in the possibility of transcendence" (p. 52). During this PD session, we
	engaged in motivational strategies and using growth mindset to support
	students' progress through academic adversity, productive struggle. In
	addition, we engaged in discussions on strategies to enhance relationship
	development, specifically highlighting the importance of connection.
	"Culturally responsive teachers take advantage of the fact that our brains
	are wired for connection (p. 19).
Cultural Responsive Teaching	During this PD, we focused on the last practice area of Hammond's
Practice Area 3: Information	(2015) CRT framework, information processing. Information processing
Processing	is described as understanding the connection of culture and how the brain
J 8	processes information, as well as specific brain based processing
	strategies (Hammond, 2015). This was connected to the impacts of
	poverty induced stress on brain functioning and information processing.
	restriction processing.

APPENDIX P

Cultural Conversation Capture Sheet Results

What specific cultural progress have you seen teams you are active on or the school as a whole?

- Have high expectations for all, including conversations in planning about how to support all students
- Professional development on differentiation
- ESOL teachers present for planning to support ways to address linguistic diversity
- An understanding of productive struggle and how to use it as a motivational tool
- Research on productive struggle and explaining the learning process is different for each student and teacher.
- Exposing staff to the basics of what it feels like to be an English Language Learner.
- Using media resources to expose students to other cultures
- Highlighting other cultures/languages within the classroom as a learning resource
- Goal Setting before coming to curriculum study
- Engaging in talk about individual students not focused on group performance

What barriers do you believe there are to our progress in becoming a more/stronger culturally competent environment?

- Monolingual communication
- Examining and confronting our own teammates competency
- Deficit linguistic narrative
- Reflect and address personal biases
- Lack of knowledge that is clearly being addressing through professional development
- Not understanding of one's own culture
- Facing our own stereotypes
- Teacher believe that outside environments does not support their academic progress

What do you feel are our school's beliefs around cultural diversity?

- Language and Culture should not negatively impact learning but should positively impact learning.
- Culture is not a barrier to academic success.
- Value of the use of instructional time to explore multicultural learning
- That everyone can succeed

In what ways are we fostering an environment for cultural diversity to grow?

- Leveled grouping limits student exposure to higher level peers or higher level thinking
- Providing students with wait time
- Supporting established
- Using research based literature
- Heterogeneous grouping
- Embracing Cultures of each student and utilizing families as educational resources
- Multicultural literature
- Conversations in classrooms that focus on cultural diversity
- Teaching tolerance
- Providing differentiated learning for the students

APPENDIX Q

Cultural Competency Continuum

Stage 1: Cultural	Stage 2:Cultural	Stage 3:Cultural	Stage 4: Cultural	Stage 5:Cultural	Stage 6: Cultural
Destructiveness	Incapacity	Blindness	Pre-Competence	Competence	Proficiency
Characterised by	Characterised by	Characterised by	Characterised by	Characterized	Characterized
intentional	lack of capacity	the belief that	the desire to	by acceptance	by holding
attitudes policies	to help minority	service or	deliver quality	and respect for	culture in high
& practices that	clients or	helping	services and a	difference,	esteem: seeking
are destructive to	communities	appraches	commitment to	continuing self	to add to the
cultures and	due to extremely	traditionally	diversity	assessment,	knowledge base
consequently to	biased beleifs	used by the	indicated by	careful attention	of culturally
individuals with	and a paternal	dominant	hiring minority	to the dynamics	competent
the Culture	attitude toward	culture are	staff, intiating	of difference,	practice by
	those not of	universally	training, and	continious	conducting
	mainstream	applicable	recruiting	expansion of	research,
	culture	regardless of	minority	knowledge, and	influencing
		race or culture.	members for	resources and	approaches to
		These services	agency	adaptation of	care, and
		ignore cultural	leadership, but	services to better	improving
		strengths and	lacking	meet the needs	relations
		encourage	information on	of diverse	between
#		assimmilation.	how to	populations	cultures,
	1 2		maximize these		promoting self
	2		capacities. This		determination.
			level can lead to		
			tickenism.		













Quotes that demonstrate this stage:

"This is America, everyone should speak English."
"I have been teaching this way for 20 years and I am not going water down or modify my curriculum for any student



stage:
"I can't believe
my Asian
students only
performed in the
80th percentile."
"We can't expect
that much they
are poor and they
don't have a
parent who
speaks English at
home.

Quotes that demonstrate this stage: "When I see

children with disabilities or children with a language deficiency, I do not see their disability, I only see children. "Why do we have to suffer through another PD on diversity?"

Quotes that demonstrate this stage: "We need an

African
American person
on this IEP
team."
Recruitment of
underrepresented
professionals
with little support
to adapt to the
work
environment.

Quotes that demonstrate this stage:

Respect for differences -On-going assessment Expansion of cultural knowledge "We must continuously train staff on communication strategies that lead to understanding others points of view"

Quotes that demonstrate this stage:

"I believe that conflict is natural and normal. I am glad we are learning how to do things differently when conflict occurs.

Peter Moran

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EDUCATION AND QUALIFICATIONS

Johns Hopkins University, Baltimore, MD, Doctorate in Education
 Johns Hopkins University, Baltimore, MD, Masters in Education
 James Madison University, Harrisonburg, VA, Teacher Certification
 James Madison University, Harrisonburg, VA, Bachelor of Science (Kinesiology & Public Administration)

WORK EXPERIENCE

Montgomery County Public Schools Glenallan Elementary School 2011-Present

Principal

Served as the instructional leader at a Title I school responsible for leading the development and implementation of the school improvement plan (SIP). In first year the development of this plan focused on differentiated math instruction as a result of African American students not meeting Adequate Yearly Progress by significant margin. Implementation of SIP and professional development plan resulted in the school moving to all subgroups meeting Adequate Yearly Progress according to No Child Left Behind. To advance student level of preparation for college and careers created and implemented a STEM academy through the merging of multiple curriculums, securing grant funding, and establishing community partnerships with NASA, NIST, and the United States Science and Engineering festival in order to expose students to learning opportunities specifically in multiple areas of engineering and science. Led school community operations to manage the transition of over 500 students and 80 staff members to a holding facility while overseeing the construction and fiscal responsibilities of building a new facility. These fiscal responsibilities included the management of a 1.2 million dollar budget to purchase technology, furniture, instructional resources for the opening of a new elementary school. Established shared leadership through restructuring collaborative processes to study curriculum and instructional strategies, facilitated student voice teams to increase academic choice, and developed learner profiles to create personalized learning opportunities. These structures in addition to the development of social emotional learning initiatives resulted in school scoring in the top 5 in the school district for 3 consecutive school years in student engagement, hope, and well-being according to Gallup survey data

Montgomery County Public Schools Glen Haven Elementary School 2010-2011

Principal Intern

Led the development of the quarterly school improvement progress report through collaborative discussions with the principal, math content coach, reading specialist, staff development teacher by examining reading and math data to determine progress and made necessary modifications to meet school improvement plan goals. Utilized Baldrige strategies, such as Plan-Do-Study-Act and force field analysis to initiate and engage in conversations with all grade level teams to raise student performance. As a result of utilizing these tools, instructional needs were discussed as a team, interventions were implemented and an action plan was created to ensure monitoring and results. Created monitoring system to align data with the Seven Keys to College Readiness benchmarks to make instructional decisions to ensure students maintain trajectory to college readiness.

Montgomery County Public Schools Georgian Elementary School 2007-2010

Assistant Principal

Focused on decreasing the academic achievement gap between Black and Latino and Asian and White students by engaging teachers in equity training and data driven discussions to evaluate and reflect on specific instructional practices that could support increases in academic achievement. These equity and excellence conversations with staff promoted greater access to advanced math instruction for African American and Hispanic students. As a result, eleven students transitioned into the advanced math class in grade 5 and all eleven (100%) successfully completed the class. Led the management and development of school operations, community engagement, special education processes and policy, and emergency procedures. Established partnerships with community agencies and local business to develop a male mentoring program for fourth and fifth grade at risk students. This program resulted in 80 percent of these students meeting the grade level benchmarks on end of the year reading assessments.

Montgomery County Public Schools Whetstone Elementary School 2004 - 2007

Physical/Health Education Teacher

Developed comprehensive pre-kindergarten through grade physical education program that promoted physical fitness and technical skills and knowledge to support success in targeted sports. Integrated math and science content to enrich classroom based content through kinesthetic learning opportunities. Provided academic interventions to students performing below grade level in reading during and after school. Developed and implemented "College Focus" for fifth grade students, which culminated in a field trip to the University of Maryland.

LEADERSHIP EXPERIENCES/PRESENTATIONS

2017	Chair of Montgomery Advisory Group (MAG) to Chief Financial Officer
2012 – Present	Facilitator/Presenter for American Association of the Advancement of Science
2011 – Present	Professional Development Trainer/Coach for Assistant Principals
2011 – Present	Principal Representative for the Montgomery County Multiagency Kennedy Project
2011 – Present	Chair of Glenallan Community School Leadership Council
2011 – Present	Sponsor "Gator Guys" (Male Mentoring/Motivational Program for At Risk Youth)
2011 – Present	Coach Glenallan Basketball Team for Montgomery County Recreation Department
2011 – 2012	Facilitator/Presenter for National Association for the Advancement of Colored People
2007 – 2010	Lead Administrator for Title I Funded Extended Learning Opportunity

PROFESSIONAL ORGANIZATIONS

2016 – Present	Member of Elementary Principals Action Team (EPAT)
2007 – Present	Member of Montgomery County Association of Administrators & Principals (MCAAP)
2004 - 2007	Member of Montgomery County Education Association (MCEA)

AWARDS, ACHIEVEMENTS, AND HONORS

2016	Washington Post Principal of the Year – Montgomery County Public Schools
2016	Mark Mann Excellence and Harmony Award – awarded to one principal in Montgomery County who exemplifies exceptional performance in promoting academic excellence, positive human relations and community outreach.
2014	Recognized for Leading for Equity in National Education Association Magazine in cover article, "Still Separate Still Unequal"

2014	Recognized for Parental Involvement in National Association for the Education of Young People in article, "Engaging Families in Diverse Communities: Strategies from Elementary School Principals"
2013	Recognized for development and implementation of STEM Initiative in Washington Post article, "School Outfitted for New Mission"
2013	Collaborated with leaders in Montgomery County Department of Transportation to develop school transition plan for schools required to travel to holding facilities during construction
2013	Collaborated with Division of Construction, Department of Materials Management, Department of Transportation, and Office of School Support and Improvement to open newly constructed Glenallan Elementary School
2012	Recognized for college initiative by Montgomery County Gazette article, "Glenallan Students go to College"

SPECIAL INTERESTS

Coaching high school football and youth basketball, researching and presenting on the socioeconomic achievement gap, public speaking, presenting on educational initiatives/policies/reform efforts, traveling to and hiking national parks, studying the history of national parks, political science